

Finding the balance

Transformations for housing associations in the Netherlands

Péter János Pápai

Master thesis



Colophon

Master thesis

Finding the Balance

Transformations for Housing Associations in the Netherlands

Péter János Pápai

4822544

Management in the Built Environment

Delft University of Technology

First mentor: Prof. Ir. Hilde Remøy

Department: Real Estate Management

Second mentor: Dr. Ir. Gerard van Bortel

Department: Real Estate Management

Delegate board of examiners: Ir. Lidy Meijers

21 January 2026



ABSTRACT

Despite the housing shortage in the Netherlands, one of the possible solutions -the transformations of non-residential buildings into housing- is on the decline (Centraal Bureau voor de Statistiek, 2025). Even when the office market is oversaturated (Remøy et al. 2024). At the same time the government is looking to housing associations to create the much needed affordable housing, but the housing associations struggle to find new developments(Remøy et al. 2024). Transformations of already existing buildings can be sustainable solution to that problem. Surprisingly there is a research gap on the role of housing associations regarding transformations. There is literature on both housing associations and transformations, but research is lacking on how transformations are seen by housing associations. The literature on transformations is mostly focused on for-profit development. But there are differences between housing associations and other developers. This is mostly reflected in their valuation of projects (Hoomans, 2019).

Therefore, this thesis will focus on the differences in driving values between non-profit and for-profit organisations. This study will use a qualitative research method. The instruments in this research used are interviews and an expert panel. The interviews are used to create an understanding of both the assessment process and the prioritisation of different values regarding transformation projects. The findings of the interviews are cross-analysed to find the overlapping, missing and conflicting driving values between the parties, while the focus group discussion with a heterogeneous group tests the findings of the analysis.

These results give insight in the driving values for transformations by housing associations. From this a conceptual valuation tool is presented for housing associations when considering a transformation project. Further recommendations to policymakers are also made as the driving values can be used for promoting transformations.

KEYWORDS - transformation, adaptive re-use, housing association, evaluation, decision-making

Table of contents

Table of contents	2
1. Introduction	8
1.1 Problem statement	8
1.2 Scientific relevance	9
1.3 Societal relevance	9
1.4 Research topic	10
1.5 Research aim and objective	11
1.6 Dissemination and audiences	11
1.7 Research outline	12
1.8 Reading guide	13
2. Methodology	16
2.1 Research Design	16
2.1.1 literature review	17
2.1.2 Case study	17
<i>Criteria for cases</i>	17
<i>Selecting cases</i>	18
2.1.3 Semi structured interviews	19
2.1.4 Case analysis and cross case analysis	20
2.1.5 focus group/expert panel	20
2.2 Framing (methodology)	21
2.3 Selecting (methodology)	22
2.4 Research Output	23
2.4.1 The goals of this thesis	23
2.4.2 Objectives	23
2.5 Research ethics and data management	23
2.5.1 Data collection	23
2.5.2 Data management plan	24
2.5.3 Ethical considerations	24
3. Theoretical research	28
3.1 A 3P (People, Planet & Profit) framework of transformation for buildings into housing for housing associations in the Netherlands	28
3.2 People	29
3.2.1 Heritage	29

3.2.2 The future user	30
3.2.3 The neighbourhood	31
3.3 Planet	32
3.3.1 Circularity	33
3.3.2 Energy usage	33
3.3.3 Ecology	34
3.4 Profit	34
3.4.1 Investment costs	35
3.4.2 IRR & Risk	36
3.4.3 Market Value	36
3.4.4 Existing valuation methods	37
3.5 Theoretical framework	38
3.6 Paradox perspectives	41
4. Results	44
4.1 introduction results	44
4.2 Eerste Helmerstraat	46
4.2.1 Case description	46
4.2.2 Analyse	46
4.2.3 Summary case Eerste Helmerstraat	51
4.3 Zoetelaarspassage	53
4.3.1 Case description	53
4.3.2 Analyse	54
4.3.3 Summary case Zoetelaarspassage	57
4.4 District U	60
4.4.1 Case description	60
4.4.2 Analyse	60
4.4.3 Summary case District U	66
4.5 Hillside	68
4.5.1 Case description	68
4.5.2. Analyse	68
4.5.3 Summary case Hillside	72
5. Cross case analysis	74
5.1 Missing values	75
5.1.1 missing indicators within the interviews	75
5.1.2 the missing values of the theoretical framework	77
5.2 Case analysis non-profit	78

5.2.1 People	78	
5.2.2 Planet	79	
	79	
5.2.3 Profit	81	
5.2.4 Driving values	82	
5.3 Cross case analysis for profit	83	
5.3.1 People	83	
5.3.2 Planet	84	
5.3.3 Profit	85	
5.3.4 Values	86	
5.4 Comparing non-profit & for-profit	87	
5.4.1 Driving values non-profit vs. for profit	87	
6. Findings expert panel	90	
6.1 Location	90	
6.2 Heritage	90	
6.3 Ecology	91	
6.4 Sustainability	91	
6.5 Small housing	92	
6.6 Investment costs vs. market value & IRR	93	
6.7 Building costs	93	
6.8 Time	94	
6.9 Image	94	
6.10 Municipality	95	
6.11 Decision making	95	
6.12 Overall driving values non-profit & theoretical framework	96	
7. Discussion	100	
7.1 Summary of findings	100	
7.2 Scientific relevance	101	
7.3 Societal relevance	102	
7.4 Limitations	103	
7.5 Further research recommendations	104	
8. Conclusion and recommendations	106	
8.1 sub-research questions	106	
8.2 Main research question, conclusions & recommendations	109	
8.2.1 Main research question & conclusions	109	
8.2.2 Policy recommendations	112	

9.	Reflection	114
9.1	Introduction	114
9.2	Method	114
9.3	Process and personal reflections	116
10.	References	118
	Appendices	124
	Appendix 1. longlist cases	124
	Appendix 2. Data management plan	128
	Appendix 3. Consent form interviews	137
	Appendix 4. Consent form expert panel	140
	Appendix 5. Interview protocol	143
	Appendix 6. expert panel protocol	145

Introduction



1

1. Introduction

The Netherlands is moving towards a circular economy (Ministerie van Infrastructuur en Waterstaat, 2024). To achieve this goal the circularity of the built environment needs to be massively improved as the construction sector is still one of the biggest polluters in the Netherlands (Feddes, 2025). Working on decarbonizing the construction sector while there is still a great demand for housing is the challenge. Apart from the current demands there is also the need make sure that there is enough capital for the future (CES, 2014).

The need is apparent and there is a growing sentiment that buildings should be transformed to the needed function instead of being torn down to make place for a new building. This trend is underlined with the new book of *Beter dan sloop* (Better than demolition) of Fred Feddes (2025), wherein there is a strong manifesto to keep every building, especially those built after World War 2. This kind of development is the one referred to when talking about transformation in this study. Transformation is the developing existing buildings while maintaining at least the load bearing structure while changing its function to housing.

The aim of this thesis is to research the sentiment of the housing associations in the Netherlands in regards to transformations. As they are key players in the development of new housing in the Netherlands and have been front runners in the realisation of transforming empty buildings into housing (van Bortel, 2024).

1.1 Problem statement

In the Netherlands there is a housing shortage. This housing shortage results in record long waiting lists for applicants for housing by housing associations. It becomes more and more common to hear waiting times of more than a decade (Buijtendijk & Buijs, 2023). Therefore, it has been a goal from the government to build more housing every year to combat this (Ministerie van Volkshuisvesting en Ruimtelijke Ordening, 2024). A big part of these new housing is expected to be affordable housing and therefore to be realised by the Dutch housing associations.

At the same time the Netherlands is trying to achieve a more circular economy (Ministerie van Infrastructuur en Waterstaat, 2024) and just building new isn't viable. It is taxing on the environment (Power, 2008) and available green spaces are in short demand. Especially for housing associations it has become hard find enough green spaces for new developments (Remøy et al., 2024). Therefore, it seems logical that the transformation of already existing buildings, like offices, into housing should be one of the solutions. It reduces waste by re-using existing structures (Power, 2008) and transformations take less time to develop (Bullen & Love, 2011). The value of transformations of existing structures into housing also has been recognized by the government and been promoted by it (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022).

And it seems that the time is perfect for it. Housing demand is at an all-time high, while the office market struggles with a rise in vacancy (NOS, 2024a). Furthermore, the office market in the Netherlands is a replacement market (Remøy et al., 2024). This is important because that means that offices that are being replaced will most likely result in vacancy as the market is already saturated. Nevertheless, in the last few years transformations of existing buildings into housing have been on the decline since 2019 (Centraal Bureau voor de Statistiek, 2024). This seems odd, but according to the Dutch ministry of internal affairs it is mostly due to the fact that most of all

the easy to transform buildings have been done. What is left are transformation projects that carry more risks, because of their unfavourable location for example (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022).

Housing associations, previously front runners in the transition of existing buildings into housing (Remøy et al., 2024), are again considering transformations as part of the solution to develop enough affordable housing. At the same time housing associations themselves seem to struggle with how to evaluate transformation projects. During a scoping interview with a senior developer from a housing association the process of evaluating a transition project was described as a 'black box'. There is a lack of standardisation and objectification of the process, making it harder to evaluate the project. It is the aim of this research to develop a tool and/or a basis on which housing associations can evaluate potential transformation projects (personal communication, [27-11-2024]). And according to Arge en Hjelmbrække (2012) the lack of strategic objectives and methodology of projects is a wider phenomenon seen in the construction industry.

1.2 Scientific relevance

Because of the importance of this topic the lack of scientific research on the topic is all the more surprising. There seems to be a knowledge gap. There is quite a lot of scientific research on transformation of offices and other utility buildings into housing. But in the context of housing associations research is lacking. For example, in the book *Transformatie naar woningen 2024* (transformation to houses) by Hilde Remøy et al. housing associations are mentioned by Van Bortel (2024) but mainly in the light on how impactful they could be. But the scientific research is lacking in how the housing associations approach transformation projects, in stark contrast with the chapter about developers and transformations. This is important as housing associations differ in their goals from traditional developers. Most notably is the different stance towards profit. It is the assumption of this thesis that different values result from a for profit organisation in contrast to a not-for-profit organisation.

Furthermore, housing associations have to abide by different legislation in the Netherlands, usually also operate their projects afterwards and have a different system of financing their projects. Because of this, this thesis forward that housing associations value projects differently than traditional developers. Therefore, in this thesis the research gap between transformations and housing associations will be addressed.

1.3 Societal relevance

Changing the perspective of the lifetime of building and reusing more of the already existing stock is to the benefit of the society. It is one of the steps towards a more circular economy wherein extracting resources from the exhausted earth play a smaller role and making the real estate market more resilient to fluctuations in the supply of resources (Feddes, 2025). Furthermore, by focussing on housing in this thesis, the housing market will also transit towards a replacement market wherein the supply meets the demand.

1.4 Research topic

This thesis will focus on the assessment of transformation projects into housing for housing associations in the Netherlands. Understanding the valuation of transformations will help in promoting transformation projects. Transformations are seen in this thesis as one of the four possible strategies when dealing with vacancy mentioned by Remøy & Van Der Voordt (2014). Where they call it the conversion to new functions. With this they make a distinct difference with demolition and newly built. Transformation is therefore defined in this thesis as a conversion to another function while keeping as much as possible of the existing building. While keeping at least the structure as defined by Brand (1994).

It is the assumption of this thesis that the value framework, or in other words their assessment tool, of for profit and non-profit organisations will have their differences on the development of housing within transformation projects. Examining the differences, overlaps and gaps in their valuation of transformation projects will result in a better understanding of the complex problem that transformation projects are.

The value framework of the 3P (People, Planet & Profit) will be used in this thesis to evaluate the values. As these three domains are widely accepted for sustainable development (Hanh et al., 2014). The three domains of people, planet and profit will be explored further in the existing literature.

The research narrows itself to the front-end of the project wherein the most differences still can be made (Rodrigues & Freire, 2021). Furthermore, this is chosen as usually housing associations do not have unused utility buildings in their portfolio due to legal restrictions (Ministerie van Infrastructuur en Waterstaat, 2024a) and the acquisition of property is a significant investment (Conij, 2023). The front-end is the period before the acquisition of the potential transformation of the building.

From this the following main research question follows:

How can the transformation of buildings into housing be valued/evaluated within housing associations in the Netherlands at the front-end?

To answer the main research question, sub-research questions have been formulated. These are:

1. What are the values within assessment criteria as seen in existing literature for real estate developments?
2. What are the values used by for profit parties to assess transformation projects?
3. What are the values used by non-profit parties to assess transformation projects?
4. Where do the values of for-profit and non-profit organisations overlap, where do they conflict and what are the missing values?
5. How to balance/harmonise conflicting values and add missing values for transformation projects of housing associations?

1.5 Research aim and objective

The aim of this research was mentioned before to develop a tool and/or basis on which housing associations in the Netherlands can evaluate transformation projects. Due to the limited scope only a concept level tool will be achieved with this thesis. Or using the technology readiness levels (RVO, 2022), this thesis will limit itself to level two. To achieve this, aim this thesis will compare and combine value assessments of transformation projects of both for profit and not for profit organisations. This will integrate the valuation methods for transition projects with the valuation methods of housing associations. Thereby connecting the already existing literature of valuation methods with housing associations and transformations and filling the knowledge gap that resulted from it.

1.6 Dissemination and audiences

Four preliminary presentations and one final presentation, thesis will be uploaded at the end of the research on the TU-Delft archive. The audience of this thesis will primarily be the housing associations and project developers of housing associations in particular. This is because the tool, which is the final objective of this thesis should complement their knowledge of assessing projects. Secondary policy makers will be part of the targeted audience as insight given into the driving values of the housing association may supplement policy that promotes transformations.

1.7 Research outline

Figure 1 is showing the outline of this research.

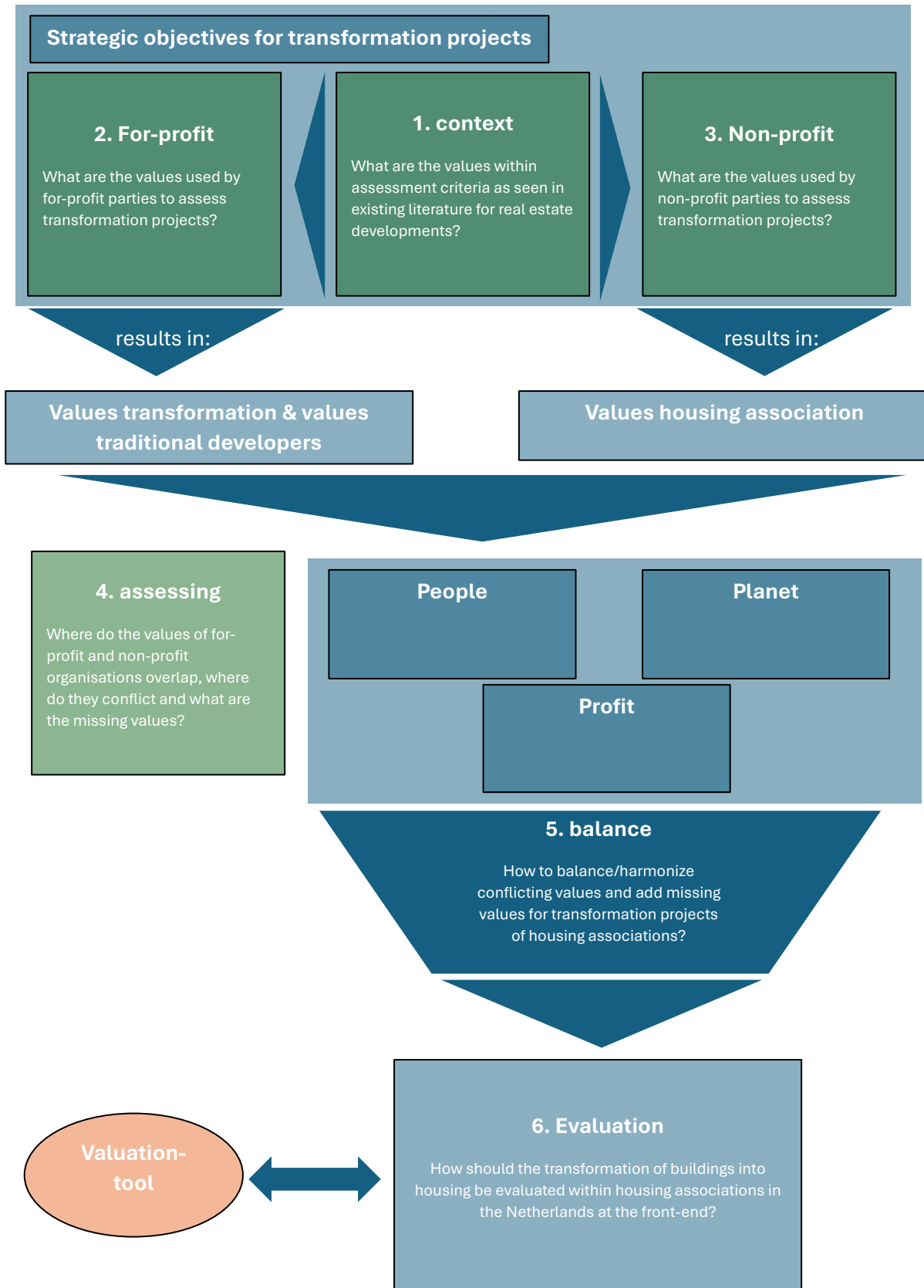
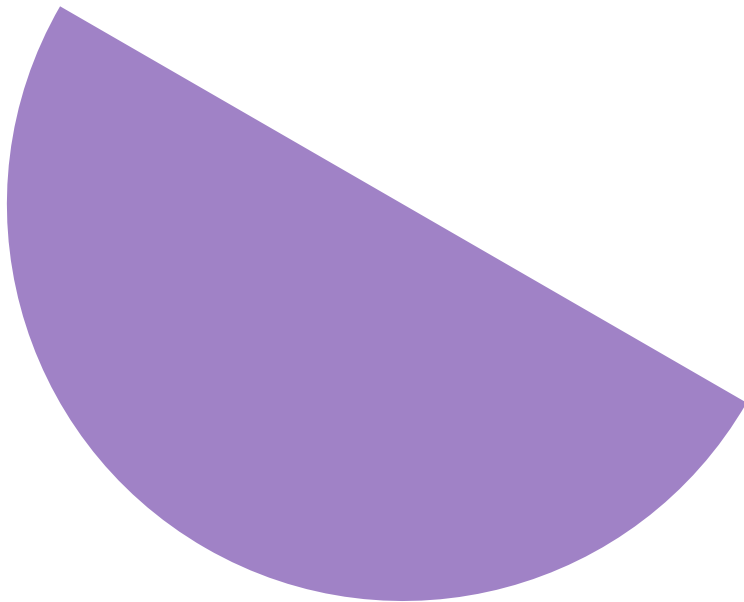


Figure 1: Conceptual model: Own work, 2025

1.8 Reading guide

This thesis is structured as follows: it begins with the methodology, which is followed by a theoretical review wherein the first sub-research question will be addressed. Sub-research questions 2 & 3 will be addressed in chapter 4 wherein the interviews will be analysed, using the theoretical framework of the previous chapter. Chapter 5 uses the findings of chapter 4 for to answer sub-research question 4. In chapter 6 the findings of chapter 4 & 5 are tested by an expert panel. This follows into chapter 7 where the chapters 4,5 & 6 will be discussed using the literature of chapter 3 and the limitations of this research will also be discussed. In chapter 8 a conclusion will be formulated from the prior research. Ending with chapter 9 wherein there is a reflection upon the research process.

Methodology



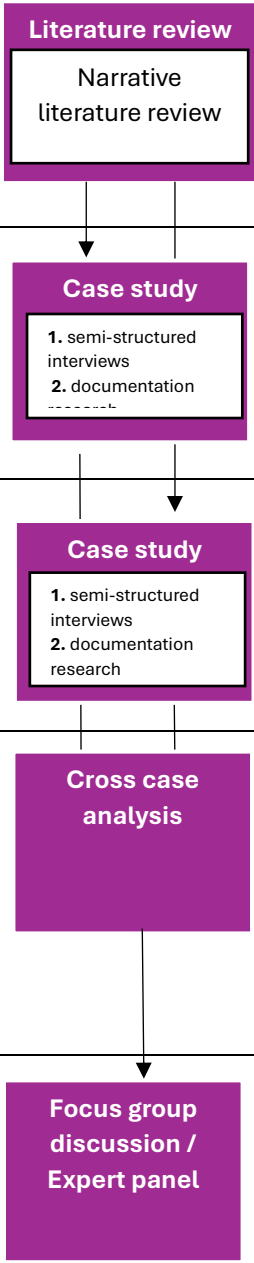
2

2. Methodology

2.1 Research Design

In the following part the research design will be discussed. An overview of the research design can be seen down below, table 2.

Table 2: Research design: Own work, 2025

Research question	Approach and method	outcome
SQ1. What are the values of assessment tools seen in existing literature for real estate developments?	 Literature review Narrative literature review Case study 1. semi-structured interviews 2. documentation Case study 1. semi-structured interviews 2. documentation research Cross case analysis Focus group discussion / Expert panel	Creating of a theoretical framework using the 3p-framework for the understanding the values regarding transformation projects.
SQ2. What are the values used by for-profit parties to assess transformation projects?		Insight in the values of for-profit organisations regarding transformations.
SQ3. What are the values used by non-profit parties to assess transformation projects?		Insight in the values of nonprofit organisations regarding transformations.
SQ4. Where do the values of for-profit and non-profit organisations overlap, where do they conflict and what are the missing values?		An assessment on which values contradict each other between the different organisations, which values conflict, overlap or miss.
SQ5. How to balance/harmonize conflicting values and add missing values for transformation projects of housing associations?		Establishing how different values need to be valued in the case of transformation projects.

2.1.1 literature review

The literature review is used to answer RQ 1 & 5. For RQ 1 the literature review is needed for understanding the existing literature needed for creating the theoretical framework, selecting the cases for the case study and for the basis of the interviews connected to the case study. The method for this literature review will be a narrative literature review. As this kind of literature review is good applicable in the development or advancement of theoretical models. As a theoretical framework is the desired outcome of RQ 1, this method fits well and helps to make a complex problem more clear (Kaufman et al., 2003). A big limitation of this method is the subjective nature in which the research takes place. The bias of the researcher decides the narrative (Rumrill & Fitzgerald, 2001). To combat this possibility of tunnel vision feedback from peers and supervisors is needed.

For RQ 5 the literature review is needed for understanding on how to harmonize conflicting values. For this the theory of paradox perspectives will be used as to relate the different values with each other and what possible consequences can be of neglected or missing values. This will feed into the focus group discussion together with the findings from the cross-case analysis to give different perspectives on the given subject.

2.1.2 Case study

Case studies are chosen as to deepen the understanding of the literature and to also test the theoretical framework with what is seen in practise. The theoretical framework will be tested if values from the framework will overlap, conflict or miss. With these findings the theoretical framework will be revised for answering the main research question. The case studies will be chosen based on the literature review regarding to RQ 1 and based on their availability and comparability.

The case studies are the chosen research instrument for RQ 2 and 3. These research questions refer either to for profit or non-profit organisations and need therefore their own cases. These two will be compared in the cross-case analysis for answering RQ 4.

Criteria for cases

Selection the cases will be based on three main principles: comparability, affordability and accessibility. In the following part the reasoning behind these three principles is further explored.

Comparability: The cases need to be comparable with regards to location, size, type of housing, original function and transformation level. As these things effect the both the investment costs and revenue. Furthermore, with a limited number of cases, it is important to have comparable cases as to not compare wildly different kinds of transformations.

- *Size and location* can affect the pricing and are mostly important for the economic value of the project.
- *Type of housing* as different target groups have different needs this strongly impacts the design. For example, as houses with less than 50m² do not need an outside space like a balcony and some housing share some of the facilities.
- *Original function* is important for the design process and how to fit the new function into a building that is designed for another function.
- *Transformation level* varies between the projects. Re-using as much as possible is one of the main reasons to transform existing buildings. The transformation level will be determined using the shearing layers of architect Frank Duffy (Brand, 1994).

Differences between the developers have to exist as to achieve the findings for the sub research questions 2,3 and 4 as different developers may have conflicting views that may have to be reconciled.

Affordability of the housing is important as it is one of the key values between the social and monetary values of housing associations. Therefore, it is important to use transformation projects that provide affordable housing. This is also important to keep the cases comparable.

Accessibility to the project and its documents is essential. Cooperation of the party is needed to achieve insights of the project needed for deeper understanding of the decision making and valuation process.

- *Assessment tool*, access to the used assessment tool and the underlying mechanisms is vital in understanding why certain decisions were made and which values were taken into consideration.
- *Cooperation for interviews* is also a requirement as to deepen the knowledge of the underlying information about the underlying processes.

In the case of lacking available cases compromises need to be made. Of the three criteria is the accessibility the most important and in particular the cooperation for interviews. As without this there is a lack of qualitative data to analysis needed to answer research questions 2 & 3. After this some level of comparability is needed otherwise there is no need to compare the cases. Affordability is the first criteria that can be compromised on as the questions for the interview can be adjusted to approach this topic in another way.

Selecting cases

Based on the criteria and the selection available in the long list (see appendix 1) the cases were chosen. As the list of available cases from non-profit organisations is shorter it was reasoned to first choose two cases from that list. After reaching out to the organisations of those projects could be made a list of comparative aspects.

After reaching out to several housing associations only two cases were possible to further research. These cases are:

Zoeterlaarspassage: The transformation of office space above an indoor shopping mall in the Dutch city of Almere, with the possibility of adding an extra floor on the roof. The project has a GFA (gross floor area) of 5720 square meters with 90 houses with a floor area between 40 and 86 square meters each. There was no defined target group, it was all social housing. Organisation is the housing association de Alliantie. De Alliantie is prepared to share documentation on the case and to partake in interviews.

Helmerstraat: The transformation of a school into studios for starters, students and immigrants. Located in a prime spot in Amsterdam, the project has a GFA of 970 square meters with 23 studios, each ranging between 18 and 30 square meters. Important to note is the monumental status of the building before purchasing. Organisation is the housing association Rochdale. Rochdale is prepared to share documentation on the case and to partake in interviews.

Despite the two cases being dissimilar there are some overlapping aspects.

- *Size and location:* Even though the size differs quite a bit, both cases are located in a highly urbanised area.
- *Type of housing:* The floorspace of the houses differs but they are both independent living units and apartments. Furthermore, they are both fully social housing.
- *Original function:* Schools and offices do not differ too wildly from each other to not be comparable as would be the case with for example transformations from industry.
- *Transformation level:* using the shearing layers of Frank Duffy both projects retained their place and structure and most of their skin. For the other case something comparable is wished as to keep it comparable. As replacing the façade significantly impacts the building costs.

Based on these and the possible cases from the long list (appendix 1) a short list was made. The following cases are comparable enough to use for the cross-case analysis.

- Hillside
- Narita
- Parkstaete
- De Entrée
- Witbautstraat
- District U

The respective parties were contacted and these are the cases of whom their associated organisations want to share.

Hillside: The transformation of an old office building into housing together realised with a newly built apartment complex in Amsterdam. In total 233 new social houses were realised with floorspaces ranging from 23 to 48 square meters. For the transformation only the place and the structure were re-used. The leading organisation is the developer B-right and they want to partake in interviews, but they cannot share documentation regarding the case.

District U: The redevelopment of the Unilever Campus in Vlaardingen. Wherein the main building will be transformed into a plethora of functions including 750 apartments. The size of the apartments is unclear but at least a part of the housing will be social housing. For the transformation it is unclear what parts will be re-used and which parts will be demolished. But it is transformed from an office and educational function and is therefore very comparable with the non-profit cases. The size of the project is greater than the other projects combined, so in this regard the case lacks comparability. The leading developer is Leyten and they want to partake in interviews, but they can only share limited documentation regarding the case.

2.1.3 Semi structured interviews

Semi structured interviews are flexible and give the researcher the possibility to explore aspects of the case study that are case study specific and may lead to new insights. Which is needed to answer the sub research questions 2 & 3. In the case of transformations, it is a given that every project is different, therefore every case will most probably have specific points of interest. This is also the reason to not choose a questionnaire as the research matter is qualitative of nature and not quantitative.

The interviews are linked to the case studies. Each case will come with an interview to explore the values and valuations of their decision-making process. Because there are four cases, there will also be four interviews. Two interviews with participants from the for-profit sector and two interviews with participants from the non-profit sector. These four interviews will mostly be similar as to keep the findings comparable but the questions will be accommodated to their respective sectors.

The questions of the interview will be based on the literature study and will “hit” the nine aspects of the theoretical framework (see figure 3). This is to both test the theoretical framework if the participants can ‘connect’ with it and to make sure that both the ‘outstanding’ and missing values will be mentioned. Topics for the interviews can be seen in appendix 5.

The interviews will be online as to make it easier to record the interview and to transcribe it. It furthermore will reduce the amount of time and money spent on travelling. If a participant strongly prefers an interview in person that wish will be obliged as the participants wellbeing is of a higher importance than the convenience of the researcher within reasonable limits.

2.1.4 Case analysis and cross case analysis

The results of RQ 2 & 3 will follow after a case-analysis of the interviews. This will be done mostly by analysing the transcripts of the interviews. Using Atlas TI, the interviews will be coded and used to find patterns and recurring themes between the cases. This will be done with the use of both deductive coding and inductive coding. The deductive coding is used to find alignment between the theory and the interviews while the inductive coding is used to find new insights on recurring topics.

The code will highlight indicators of values, as described in the next chapter. The mentioning of these and how they are mentioned will correlate with a given value by the researcher. This does mean that there is a double bias, of both the researcher and the participant. To protect the external validity of the results, the results will be tested by the expert panel.

The indicators will be given a value between one and ten. One meaning that the indicator in question is not something that drives the development of transformation and ten meaning that the indicator strongly drives the transformation. The average of the given values of the indicators will be given to the correlating value. These results are shown in a spider diagram that will visualise and generalise the results. That can be compared to the theoretical framework and will give the answer to RQ 4.

The cross-case analysis is chosen as to answer RQ 4. Wherein the findings of RQ 2 and 3 will be compared with each other to find matching, conflicting and missing values regarding transformation projects. This will be done with the use of the spider diagrams as they are used in the case-analysis, to find overarching themes within and between the non- and for-profit parties.

2.1.5 focus group/expert panel

The reasoning behind the combination of a focus group and expert panel lies in the desired output needed to answer RQ 5. A focus group discussion is often used to explore what the opinions of the participants are and the expert panel is to get new insights in this specific field. Both will be of value in answering RQ 5 as answering complex problems is in practise also often based on intuition (Sales et al. 2009). Furthermore the use of an expert panel will provide a certain degree of external validity.

The group will discuss matters based on the findings of the cross-case study and the literature review. The theory used for the discussion is the paradox perspective, a method to analysis conflicting interests.

The focus group will not be homogenous, as participants from the housing associations will be joined by people from independent consultancies in the discussions. This is to ensure that all the participants have knowledge on the possibilities and limitations as a housing association in the Netherlands. The focus-group consists of about 4-5 people as all of the participants are considered experts. One of them is the researcher. The researcher fur fills the moderator's function, which is to guide the discussion as a neutral bystander.

The focus groups will take place online as to be easily accessible to all participants and to make it easier to record the discussion. The duration of the discussion is expected to be around 120 minutes. In the following paragraph the outline of the discussion is sketched.

First the focus group start with a short introduction of about 1 minute. Wherein the scope of the focus group is laid out, repeating what is already relayed to the participants via e-mail. Afterwards the participants will get acquainted with each other, mostly to get to know from which housing association they are and possibly what their goal is for that day. This will take about 10 minutes, about 2 minutes per person. This will be followed by the discussion. The discussion will take place in four parts, each part correlating with one of the three P's from the theoretical framework and one part about the theoretical framework itself. In each part the participants will see statements with the use of a presentation. The statements used in the expert panel will follow from the analysis and will be adjusted to make a debate possible, e.g. nuances within the findings will not be included. They will first decide for themselves what their position is. Afterwards they will share their position with each other and discuss. The participants may revise their position on the matter after the debate has taken place. The ability to revise their stance may give insights in what strong arguments are for certain values and how perceived complexities may be tackled. A short break of about 5 minutes for in between the discussion points will be implemented as to prevent exhaustion. But also, to facilitate informal talks between the participants over the subject.

2.2 Framing (methodology)

Following the four logics of inquiry of Blaikie and Priest (2019) this thesis will follow the retroductive logic for the first part of the research (sub-research questions 1-3) and an abductive logic of inquiry for the second part of the research (sub-research questions 4-5). The reasoning for these methods is that in the first part of the thesis the research focusses on discovering underlying mechanisms (retroductive) and in the second part to understand the actors (abductive) as to be able to create a valuation tool that fits the audience.

From the literature study will follow two main things. A theoretical framework and a list of criteria for cases to study. These will be the backbone for evaluating the case studies, both by examining the documentation of the cases and for creating relevant questions for the interviews to understand the cases. These interviews will create insight in the underlying mechanisms of assessment tools and the assessment process. The people interviewed will both be from for profit

organisations and from nonprofit organisations. And will also give the underlying information needed to answer sub-research question 4.

With the findings of the first part a focus group discussion will be prepared. The findings will be tested to a group discussion as to hammer out any differences in view by the various participants. A focus group is usually limited in the number of topics that can be discussed. Therefore, beforehand a selection of the topics is important.

This will create a robust basis for a prioritisation of the values from the theoretical framework. With that the values can be harmonised and put in a valuation tool. These will be tested with the expert panel/focus group with experts from the field. As the research output is to serve the housing association.

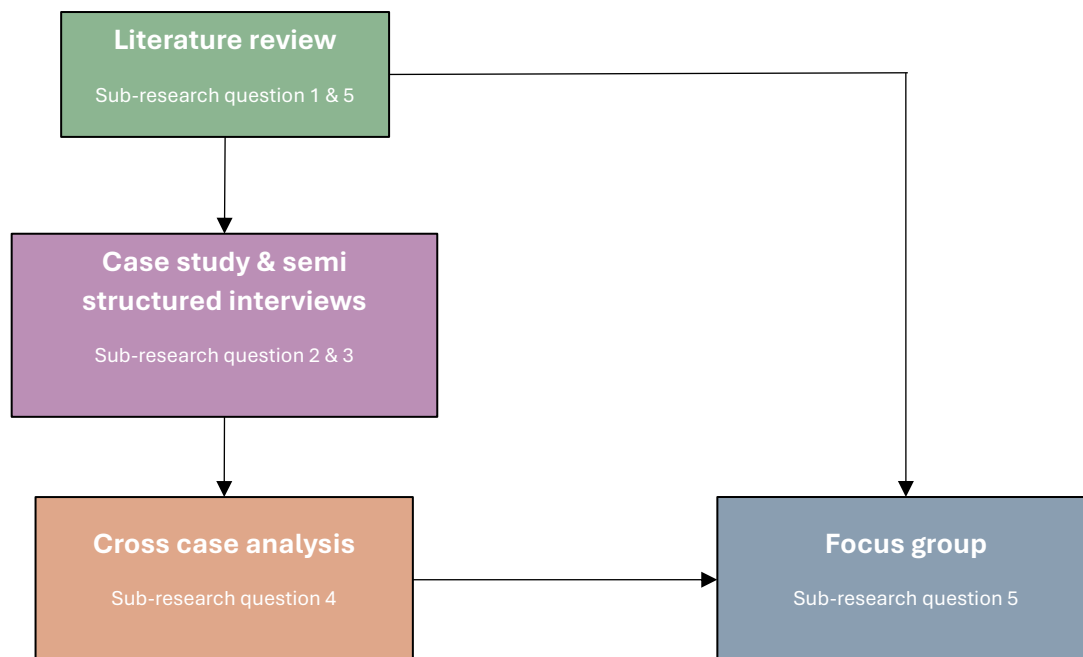


Figure 2: Research instruments framework: own work, 2025

2.3 Selecting (methodology)

This research will mostly focus on the decision-making process of housing associations. As valuation of the assets is an integral part of the decision-making process in these developments (Remøy et al. 2024) (Bullen & Love, 2011). Therefore, asset managers of both profit and nonprofit organisations will be used for the semi structured interviews and for the focus group discussion. Independent consultants will also be asked to take part in the discussion as they usually advice both parties on matters such as sustainability, design and (construction) costs. Furthermore, within housing associations independent advisors are almost always a requirement as to have a second opinion on matters of procurement and development.

2.4 Research Output

2.4.1 The goals of this thesis

The goals of this thesis are twofold as with the methods of inquiry. One part is to understand the assessment process as to be able to not only create a valuation tool that works theoretically but also fits the experience of the people who work on this topic in practice. The second goal of this thesis is to promote transformation projects as a possible solution towards housing associations. This will be done by promoting values that fit both the housing associations and transformation projects.

2.4.2 Objectives

The objectives of this thesis are as well twofold. First and foremost is the value framework. This framework will be used throughout the research and will be the basis on which the evaluation of the case studies and the theoretical framework within this study will be framed. The framework should be easy to understand and easy to use as a possibility to evaluate existing assessments.

The second objective is the valuation tool. This should be an easy to understand, practical tool. That can be used with limited information of the project. But at the same time can make a clear assessment to make a decision clearer, unlike the black box some housing associations are experiencing now. It should also be usable throughout the first few design phases as decisions in these phases are the most impactful (Rodrigues & Freire, 2021). But due to the limited scope of the thesis this will not be a realistic objective. Therefore, using the technology readiness levels (RVO, 2022) will this thesis limit itself to level two. The argument goes that just like with technologies, policy tools need to be developed from concept to application and with this thesis the concept is being set. Setting the groundwork for a proof of concept.

2.5 Research ethics and data management

In this part of the report the ethics and data management are reviewed. As it is important to that the research is methodological and morally sound for everyone involved. The thesis will go over the risks and countermeasures considering the validity of the study, the protection of its participants and data management.

2.5.1 Data collection

Participants will have to submit a written consent before their data will be collected. In the consent forms it is made clear that they can if they want to always discontinue their participation. This goes for both the interviews as the focus group discussions. Participants may also request that their data will be removed.

2.5.2 Data management plan

2.5.2.1 Data storage and analyse

The data collected will only be accessed by the researcher and his supervisors. During the research the data needs to be easily accessible for the researcher involved. Therefore, during the research all the data will be saved on the TU Delft OneDrive. After the completion of the research the data will either be destroyed or uploaded to the TU Delft Project Storage where the data is more secure.

For the interviews and the group discussion, the researcher will record the discussions on a temporary storage device. The data will as soon as possible be transferred from the temporary storage device to the TU-Delft OneDrive and will be removed from it. After the audio file is fully transcribed and the research is published it will be destroyed as to prevent the risk that the identity of the participants will be made known.

The transcribed text and the collected notes of the focus group discussions will be after anonymisation and publication of the research be stored to the TU Delft Project Storage. During the research it will be stored on the TU Delft OneDrive. In the end all the data will either be safely stored to the TU Delft Project Storage or be destroyed.

Data will also be anonymised when processing the data. This is to ensure the protection of the participants. As has been mentioned before. For the people of the focus groups explicit consent will be asked for possible quotations of the transcript, which they may deny and still participate. Quoting participants may increase the risk of participants being linked to the research. This risk will be minimised by anonymisation of the quotations. Participants will therefore not be linked because of their position/profession.

2.5.2.2 Data sharing and preservation

For the data sharing and preservation all the information will stay confidential and the findings will be generalised when possible. Apart from the possibility that someone might link a quotation to a participant, there should be no way that personal data of the participants will be made public. The data will be deposited in the TU Delft repository, for future use by other researchers. This data stays in the repository for a duration of 10 years in accordance with the guidelines established by the TU Delft Research Data Framework Policy.

Sharing the data will help future research for similar studies. Therefore, this research will adhere to the FAIR (findable, accessible, interoperable and reusable) principles.

2.5.3 Ethical considerations

2.5.3.1 Ethics: validity

Research needs to have both internal and external validity as a requisite to be scientifically sound. Internal validity focusses on the methodology. Research has internal validity if the research investigates exactly what it intends to investigate (Price & Murnan, 2004).

This research uses a qualitative methodology of both case studies with interviews and focus group discussions. Both research instruments are carefully constructed to aim to answer the intended research questions. The interviews of case studies are used as introducing the participants for the focus group discussions. This way participants will get a better understanding of this study. Validity is also created during the interviews and discussion as the participants will be acquainted with the practice and thus will probably steer the discussion automatically in the

direction of its intended purpose. In case that doesn't happen the researcher in its role as the moderator will steer the discussion back to the intended purpose, as to safeguard the validity. External validity is when the findings of the research represent what the outcome would have been had it been the entire population (Price & Murnan, 2004). In this case that would be hard to achieve as only a limited amount of the population will be contacted. But by using only experts for a specific topic can external validity still be reached.

The role of the researcher is important, as a bias can influence the outcome of the research. In this case the researcher is biased towards the transformation of offices into housing-by-housing associations. The researcher intends on promoting transformations with this research. To combat this the researcher will not participate in the focus group discussions and let a neutral moderator lead the discussions. Furthermore, the researcher will let his research be peer reviewed by its supervisors. This to ensure that the questions to the participants will be as objective and open-minded as possible. This should diminish the influence of the bias of the researcher on the findings on this research. Still because this research is about valuating, it is by its very nature subjective and not objective therefore the risk of bias remains (Marietta, 1997).

2.5.3.2 protection of participants

The voluntary nature of the interviews and focus group discussions are central to the protection of the participants. Participants will be well informed over the use, storage and publication of their data via the use of consent forms. They also keep the right to discontinue their participation without the need of a reason. This is to ensure that participants do not feel pressured to keep participating when they are confronted by discomfort or anything of the kind.

The protection of the data of the participants is also part of the protection of the participants. Participants for the interviews and focus groups will be contacted via e-mail. But there will be personal contact between the research team and the participants. For the publication of the findings of the focus groups data, including the transcripts and notes will be anonymised, while recordings will be destroyed after the publication of the research. As to minimize the risk that the participants can be traced back from the findings.

These will be ensured by applying before the interviews to the TU Delft human research ethics committee (HREC) for approval. This will ensure that the researcher will get feedback on its intended way of dealing with the participants.

2.5.3.3 Data management

For the protection of the data and to prevent problems in regards to data a data management plan is set up. This data management plan (see appendix 2) will be the basis of what data is collected and how it is stored and used.

Theoretical research



3

3. Theoretical research

3.1 A 3P (People, Planet & Profit) framework of transformation for buildings into housing for housing associations in the Netherlands.

In the following chapter the literature review takes place to answer RQ 1. RQ 1 focusses on the values that are connected to transformations of housing and how these are assessed within the literature. From this a framework is laid out with which the case studies will be evaluated. The framework will be using the Conference of European Statisticians (CES) recommendations (CES, 2014). These recommendations aim to harmonize and guide sustainable development. The recommendations of the CES consist of a measurement framework and indicators of sustainable development. These are also used by Centraal Bureau van Statistiek (CBS) in their own framework called the monitor brede welvaart (Centraal Bureau voor de Statistiek, 2023). Which is widely used within the Netherlands to measure sustainable development. The applicability and wide use of the monitor brede welvaart are the reasons to use it as ground for this theoretical framework.

The framework Brede Welvaart uses three dimensions: quality of life, capital and boundary crossing effects. These three dimensions fit well the 3P framework of Elkington (1998), wherein people, planet and profit are the three dimensions. The 3P framework is a framework that tries to balance social, environmental and financial values to facilitate sustainable private development (Elkington, 1998). This fits well with housing associations in the Netherlands who are private organisations with a traditionally social point of view. With the relatively recent trend to develop more sustainable housing balancing these three aspects is key to successful development.

Balancing these three aspects also was promoted by Bratt (2012), who introduced the quadruple bottom line. It emphasises that housing associations usually were founded with a single goal in mind but that it in time goals regarding the residents (people), the neighbourhood (place) and affordable housing (finance) became intertwined with each other. While at the same time sustainability also became a growing aspect of these nonprofit organisations. Furthermore, Bratt (2012) gives ground for defining the domains within transformation projects.

Decisions need to be made, as the 3P framework of Elkington (1998) is too broadly defined and not specified for the development of housing. For defining the three P's in this framework key values with social, sustainable and financial aspects as in accordance with Bratt (2012) and the brede welvaart will be defined. The definitions of the three domains also limits the extend of the evaluation as to make it possible to come to a decision. In the following paragraphs the three domains will be explored, discussed and defined from existing literature, beginning with people, followed by planet and ending with profit. These will result in indicators (seen in table 3) that will indicate the values that will entail the theoretical valuation framework (figure 3).

These values are seen in this thesis as driving values. Values that drive the developer to develop transformations. In this sense the values that will be discussed in this thesis are similar to the drivers as defined by Bullen & Love (2011).

3.2 People

The social value can be divided up in several parts. Using the CES (2014) recommendations, people are divided in human and social capital. Human capital is defined by the OECD (2001) as: “the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being”. While social capital is about the interaction between people and facilitation of it. From these follow three aspects of the social value: The heritage of the building, the future user of the building and the project position in the neighbourhood.

The future user of the building can be seen as the direct extrinsic value of the project, namely its human capital. While its position in the neighbourhood can be seen as its indirect extrinsic value. Namely how the project can be of value to the rest of the neighbourhood or in other words how it provides social capital. Important to note is that this is not about the other way around on how the neighbourhood values the project. The heritage value can be seen as the intrinsic value of the building that facilitates the other two aspects and refers best back to the building. Heritage is chosen as this paper is about transforming existing buildings, so there is always an existing heritage. In the following part the aspects heritage, future user and position in the neighbourhood are further explored.

3.2.1 Heritage

Heritage value is the value of a building depended on its cultural significance as used in the Burra Charter (Australia ICOMOS, 2013). The choice of the Burra Charter over other heritage valuation frameworks is its focus on the perceived value by its users and by first understanding the significances of the place before making any further decisions. Furthermore, its usage of working with past, present and future fits well with the recommendations of CES (2014). Cultural significance according to the Burra Charter consist of the social, spiritual, historic, scientific and aesthetic value a place provides towards its users. These values are mostly subjective and are depended on the use of the building. It is therefore important to see how the future use of the building can increase or preserve the heritage value of the building.

Social

In the past the intrinsic value of heritage was thought to be found in mostly the historic and aesthetic value of the heritage (Jones, 2016). But in the previous decades the social value became a more central point of the conservation effort of heritage. The social function is mostly depended on its use, for example the practice of religion. As this paper will mostly focus on the people and less on the conservation of the building, this paper will follow the definition of Johnston (1994:10).

“social value is about collective attachment to places that embody meanings important to a community.”

The hard part of social value is that is highly qualitative and not a stable value. E.g. a church that losses its religious community also losses its social value. This value is also the overlapping value with the position of a transformation project in its neighbourhood that will be discussed later on.

Spiritual

the spiritual value a place is strongly connected to the social value in a sense that it is a value based on the perspectives of the community toward a certain place. Therefore, in this thesis there will be made no distinction between these two values.

Historic

the historical value a place has to due to past events that were and/or are impactful to the (local) society. In that sense a historic value is not the same as the age of the building. The historic value is the product of both age and (past) social value (Australia ICOMOS, 2013).

Scientific

Is the value a place contributes to scientific understanding. This is usually the archaeological potential of the site (Mackay, 2019). This strongly differs from building to building and can be seen both as an opportunity and as a risk (Tencer et al., 2024).

Aesthetic

This is a purely subjective value that fully depends from person to person. Something also might be considered ugly but also familiar and therefore valued. Therefore, a building that is generally considered ugly still can have an aesthetic value. (Remøy et al., 2024)

Understanding the cultural significances of a place makes it easier to make weighted decisions on preserving “the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.” (Australia ICOMOS, 2013, p. 2) The same could be said in deciding in what to preserve while transforming a building.

For this thesis the value of heritage consists from the beforementioned values. These will be seen as indicators of the value heritage within the theoretical framework. If these indicators are present it follows from that the value of heritage was an important value during the transformation. The definition of the heritage value for this study is the willingness to enhance and/or conserve the presence of these indicators within the transformation project.

3.2.2 The future user

As this thesis is about the transformation of a building with a complete shift in function the current user is not consulted as that mostly has to do with the heritage value of the building. The value of the transformation for the future user is depended on the users satisfaction (Kowaltowski & Granja, 2011). Furthermore, ensuring human capital within the project is needed to ensure its future sustainability (CES, 2014). Although the recommendations of CES (2014) are mostly focussed on the productivity of the human capital it also underlines the importance of the wellbeing of the people. The main values for the user satisfaction used for this framework will be: the accessibility, affordability and use value of the transformation.

Accessibility

Accessibility of housing in this case has to do with the accessibility of the transformation project. E.g. job accessibility (Jiang et al., 2020) or the presence of amenities in the neighbourhood. It also directly effects the affordability, as the cost of living in low accessibility directly impacts the finances of the user (Fisher et al., 2009). Accessibility may also mean the physical accessibility of the house for the user, which needs special attention especially in cases of disabilities (Lakhani et al., 2019). But due to the limited scope of this thesis, this will not be taken into the valuation.

Affordability

Affordability is not restricted to rent-prices alone, as was mentioned previously. Affordability is a multi-faceted concept, which makes it hard to measure. The importance of affordability is great as it directly effects the (financial) wellbeing of the user (Luffman, 2006). This thesis will limit its scope to the housing costs, e.g. rent and not to the extra costs created due to other factors like the accessibility of the housing or the energy costs. As these costs will either already be accounted for in the valuation of the other values or make the framework too complex.

In the Netherlands households spend on average about 23% of their income on housing (Centraal Bureau voor de Statistiek, 2024). Affordability is depended on what share of the household income is used for rent. The higher the affordability the greater the residual wealth for the occupant.

Use-value

Glumac & Islam (2020) researched the user satisfaction of transformation projects. The use value is depended on the needs of the future user and the quality of the place regarding those needs and they didn't find great differences between reused non-residential buildings and residential buildings. They did find heterogeneity on the demand side and promoted user participation to further explore the future users wishes (Glumac & Islam, 2020).

For this thesis the value of the future user consists from the beforementioned values. These will be seen as indicators of the value future user within the theoretical framework. If these indicators are present it follows from that the value of future user was an important value during the transformation. The definition of the future user value for this study is the willingness to enhance the presence of these indicators within the transformation project.

3.2.3 The neighbourhood

A project within a neighbourhood will influence the neighbourhood both during construction (Almahmoud & Doloi, 2020) and after delivery (Eibach & Historisches Institut der Universität Bern, 2014). The potential and existing values or lack thereof within a potential transformation project therefor needs to be explored. Beside the social sustainability aspect, the (market) value of the project is also strongly depended on its location and its role therein. Therefore, maintaining and/or improve its role in the neighbourhood is important. Values that need to be pursued are strongly depended on the location but the ones used in this thesis will be: diversity, community and supportiveness. These are also supported by the recommendations of CES (2014), highlighting the importance of social capital to ensure good quality of interpersonal relations and trust between people.

Diversity

The main justification for promoting diversity within a neighbourhood are empirical findings of that disadvantaged individuals are harmed by sizable disadvantaged groups in their neighbourhoods. Therefore, the mixing of people with different social-economic backgrounds are seen as a possible remedy for these individuals (Galster & Friedrichs, 2015). This fits well with the quadruple bottom line of Bratt (2012) and more specifically with its interpretation of the neighbourhood.

Community

Savelli and Morstyn (2021) argue for the bonding of people through shared values and through familiarity with each other to achieve a local energy system. Key take away for this thesis is the importance of the social relationships within the neighbourhood and how it empowers the community to take action. Illustrative example is the action the neighbourhood of Vreewijk took towards the plans of demolition. Therefore, the creation or conservation of a community in a neighbourhood should be one of the key values when designing a new development. It differs from supportiveness in this thesis. While community empowers the community towards common threats and possibilities, supportiveness empowers the household towards threats and possibilities with the help of the community.

Supportiveness

In the conference paper of Eibach & Historisches Institut der Universität Bern (2014) describe how neighbourhoods were in the past bastions of support towards each other. Although Eibach may have romanticized the past a bit he describes the supportiveness in twofold. Firstly, as a first help in times of economic hardships and secondly in helping each other in with their stages of life, e.g. an elder person advising a young couple on childcare and fit neighbours helping a sick neighbour. An important requirement for this supportiveness is openness, both materially (like being able to look through someone's window) and socially with the house being accessible to neighbours during certain hours of the day or even the whole day.

For this thesis the value of the neighbourhood consists from the beforementioned values. These will be seen as indicators of the value neighbourhood within the theoretical framework. If these indicators are present it follows from that the value of the neighbourhood an important value during the transformation. The definition of the neighbourhood value for this study is the willingness to enhance the presence of these indicators within the transformation project.

3.3 Planet

The planet has to do with the environmental sustainability of a project. As has been noted by Remøy et al. (2024) sustainability is one of the main reasons to choose transformation instead of newly built. As all good things come in threes, also for the planet there are three things to consider that are found in the book and within the CES recommendations (2014). The circularity of the project, the energy transition and the ecological value of the project*. These also follow the CES themes of land and ecosystems, energy resources and mineral resources.

*The ecological value doesn't have its own chapter and/or parts in the book but is a requiring value throughout the book and is therefore chosen.

3.3.1 Circularity

The main strength of transformation is in the reduction of waste and the redefining of the lifecycle of a building (Khadim et al., 2023). There is the Building Circularity Indicator to indicate the circularity value of the building using the different 'shearing layers'. Or the practically more used in the Netherlands the MPG-calculation. MPG-calculations are already legally required for newly built housing (RVO 2024).

The strength of the BCI is that it shows the amount of waste and focusses more on the lifetime and the demount ability of the resources used. The usage of it does require significant amount of data which hinders its implementation (Khadim et al., 2023). While the MPG-calculation is purely focussed on the amount of CO₂ a project produces during the construction of it. Both require a lot of information to come to reliable conclusions.

But a method to predetermine the circularity value or waste production isn't seen in the literature as of yet. This is possibly because of the lack of the homogenic usage of the MKI (Dutch: Milieukostenindicator; English: Environmental costs indicator) (Fraanje et al. 2021).

For this thesis the value of the future user consists from the beforementioned values. These are the reduction of waste and the reduction in CO₂ emissions. These will be seen as indicators of the value circularity within the theoretical framework. If these indicators are present it follows from that the value of circularity was an important value during the transformation. The definition of the circularity value for this study is the willingness to enhance the presence of these indicators within the transformation project.

3.3.2 Energy usage

The energy consumption is important as it is both a legal requirement and can have a strong impact on the affordability of the housing it creates. Aedes uses "*de standaard*" to define what is a desired level of energy consumption. These levels are depended on the age, the type and the compactness of the building. Focussing on energy consumption rather than the widely used energy labels is a shift from the input (insulation) to the output (energy usage) and since the output is the desired goal it is better to measure the energy consumption (Aedes, 2021).

The energy transition mostly has to do with the type of energy that is used. There is a goal to be clear from natural gas and have all electrical homes. The electricity needs to come from sustainable sources and may be produced at the site with the use of solar panels. It is an important part of creating *BENG** housing but is often not legally required for the transformation of buildings.

**Bijna energie neutral gebouw, almost energy neutral building.*

Energy efficient housing is also beneficial for the market value of the housing, housing with an A-label is about 6,3% more worth than housing with energy label C (Chegut et al., 2016). Therefore, it can be argued from a monetary perspective for energy saving investments apart from the beneficial effect towards the affordability of the house.

For this thesis the value of the future user consists from the beforementioned values. These are the transition towards renewable energy and the reduction in the energy consumption. These will be seen as indicators of the value energy usage within the theoretical framework. If these indicators are present it follows from that the value of energy usage was an important value during the transformation. The definition of the energy usage value for this study is the willingness to enhance the presence of these indicators within the transformation project.

3.3.3 Ecology

There is a growing interest in the ecological value of the built environment, illustrative of this is the backlash the Dutch minister Keizer received from not requiring nesting places in the façades of new developments (NOS, 2024b). The ecological value of a building is both intrinsic (e.g. nesting places in the façade), extrinsic (nitrogen emissions) or both (green façade). This intrinsic, extrinsic divide can also be seen as the use values and non-use values as seen in the total economic value framework as used by CES (2014).

In the Netherlands the nitrogen emissions are the most impactful on the success of the project as there are strict legal requirements and limitation wherein the construction needs to be done. Therefore, this value is mostly seen more of a risk than a value (Vugts et al., 2023). Using the nutrients balance is also recommended by the CES (2014).

The intrinsic ecological value has bigger impact. Especially the wellbeing of the users is positively influenced by it. But wrongly designed it will have a detrimental effect on the building costs (Rodrigues & Freire, 2021). Useful implemented ecological investments will also increase the market value of the building (Zeeuw, 2018). It is hard to measure added ecological value to a project, CES (2014) uses added area of green or protected land. Though quantity may not say anything about the quality of the added green, it is an easy way to compare projects.

For this thesis the value of the future user consists from the beforementioned values. These are the ecological use value and the ecological non-use value. These will be seen as indicators of the value ecology within the theoretical framework. If these indicators are present it follows from that the value of ecology was an important value during the transformation. The definition of the ecology value for this study is the willingness to enhance the presence of these indicators within the transformation project.

3.4 Profit

Profit is needed, as a lack of monetary funds is (one of) the biggest bottleneck of housing associations in the Netherlands. This lack of funds has to do with several developments. The rise of building and maintenance costs, the energy transition especially in the existing stock and the sheer number of developments needed to address the housing crisis in the Netherlands (Ministerie van Volkshuisvestingen Ruimtelijke Ordening, 2024). Therefore, creating stock that will reimburse the investment and become profitable is needed. But to the rise in investment costs, it becomes harder to achieve a reasonable Internal Rate of Return (IRR). Therefore, housing associations look more towards the market value of a development to justify the investment. This works as the monetary value of housing due to housing crisis has been increased (maybe even inflated). It does make housing associations vulnerable to the market. Thus, increasing the risk that the loan to value relation will worsen and dampening the investment opportunities of the housing association (J. Conijn, 2023). Also, in the CES (2014) recommendations monetary capital is noted as an important part of sustainable development especially the handling of financial capital. Especially in retaining investment possibilities in the future, falling in line with the conclusions of Conijn (2023). He also splits up the finances in three parts, exploitation, transformation and expansion. Wherein the first part is about balancing the budget, the second part about the alterations in the finances due to demolition and sell offs and the last part about investing in new developments.

These three compartments are also the basis for the following monetary values for this theoretical framework. For the exploitation the theoretical framework will focus on the investment costs as therein lies the biggest difference in comparison with green field developments. The second compartment will be about the market value as it has the biggest impact if the building were to be sold off. Lastly Internal Rate of Return (IRR) and risk are tackled as they are important (together with the investment costs) for the deciding on new developments.

3.4.1 Investment costs

Building costs are on the rise and still the biggest part of the investment costs. The rise of the building cost is a culmination of several developments. A chronic shortage of construction workers, rise in energy prices due to the Ukraine war, the rise and elusiveness of the installation's costs and an ever-enlarging list of legal requirements for developments. Transformation project can be a solution to this 'growing' problem as much of the building is already built, but also very depended on how easily the new function fits in the project. Furthermore, circular construction solutions usually bring have greater initial costs than traditional construction and therefore scare of potential circular developers (Pape et al. 2025).

In general decisions taken at the front end and early design phases of the project have the greatest impact on the (construction) costs. It is therefore important to assess well at the front end as delaying decisions are detrimental for both the costs as well as on other values (Rodrigues & Freire, 2021).

In the case of transformation, the procurement of a building is needed in the case for housing associations as housing association are usually not legally allowed to own non-residential functions without developing them within a certain timeframe (Ministerie van Infrastructuur en Waterstaat, 2024). This is a risk and differs from 'normal' green field development. Ground costs are regulated for social housing, but there is no real regulation for the procurement of transformation projects. Procurement costs strongly depend on the assistance of municipalities.

Other costs that are part of the investment costs do not significantly differ from standard developments and will be outside the scope of this thesis.

In general, minimizing the investment costs is essential for the profitability of the project. The most impactful phase to minimize these costs is in the front end and early design phases of the project.

For this thesis the value of the future user consists from the beforementioned values. These are the building costs and the ground costs. These will be seen as indicators of the value investment costs within the theoretical framework. If these indicators are present it follows from that the value of the investment costs was an important value during the transformation. The definition of the investment costs value for this study is the importance given to decrease the costs using the indicators within a transformation project.

3.4.2 IRR & Risk

The internal rate of return (IRR) is the annual rate of growth that an investment is expected to generate. The higher the IRR the faster the project will reimburse the costs of the investment. As Conijn (2023) stated, it has become harder for housing associations to keep a reasonable level of IRR. This makes it harder to finance investments and costs in the future.

Risk is also important when talking about IRR. Usually, IRR is also taken as a benchmark on the amount of risk a project make have or in other words the project will be risk-adjusted (Yan & Zhang, 2022).

IRR is also usually preferred instead of NPV (net present value) because it is easier to understand. Net present value is the sum of the expected cashflows together with the investment costs, in the Netherlands usually used to determine the residual ground value. The advantage of using NPV is understanding how time effects the value. It does not however say when an investment will get positive, which is important to make new investments in the future (Conijn, 2023) (Yan & Zhang, 2022). Therefore, this thesis will focus on the IRR and not on the NPV.

For this thesis the value of the IRR & risk consists from the beforementioned values. These are the risk assessment and the IRR. These will be seen as indicators of the value IRR & risk within the theoretical framework. If these indicators are present it follows from that the value of the IRR & risk was an important value during the transformation. The definition of the IRR & risk value for this study is the importance given of these indicators within the assessment of the case.

3.4.3 Market Value

As previously mentioned, it becomes harder for housing associations to create housing with a desirable rate of return. Because of that the market value of the project is growing in importance when assessing a project as in a worst-case scenario the market value of the project will cover the costs of the investment . Relying on ever-growing housing prices to fix the LTV (loan to value) is a risky strategy (it is literally the definition of an economic bubble). But it is a way how housing association may be able to keep investing even though there is a lack of funds.

At the same time housing association may create a market wherein it is financially desirable to have a housing shortage as to keep the market value of their stock (over)valued. This will conflict with other values of the housing associations. Therefore, the thesis will follow Conijn (2023) in his advice to fix the cashflow and not to rely too much on market value.

For this thesis the value of the market value consists from the beforementioned values. These are the market value and the LTV. These will be seen as indicators of the value market within the theoretical framework. If these indicators are present it follows from that the market value was an important value during the transformation. The definition of the market value for this study is the importance given of these indicators within the assessment of the case.

3.4.4 Existing valuation methods

Tools to value transformation projects have been developed over the years. This thesis will go over the ones mentioned in the paper of Wilkinson et al. (2014). These are: The transformation meter, programmatic quick scan, architectural value, the architects' method & the ABT Method. In the book *Transformatie naar woningen* of Remøy et al. (2024) there is also an assessment tool regarding heritage for selecting the best fitting function for the transformation. But since this thesis already presupposes the transformation to housing this assessment tool will not be mentioned.

Overall are existing methods important to determine the program and to explore possible risks. Therefore, these methods are of use in determining the profit part of the 3P framework.

The transformation meter:

The transformation meter is a decision tool made for the transformation of offices into housing. Using 5 steps to make a quick scan based on physical aspects and location. Vacancy duration is seen as one of the most important criterium, but isn't seen as a veto (go/no-go) criterium. The veto criteria are assessed in step 1. These are demand for housing, location, and (dimensions of) the buildings structure. Step 2 & 3 are the scan of the transformational potential of a building. In general location is weighted more than the quality of the building. Step 4 is a financial feasibility scan, especially focussing on the structure/façade and installations as these have the biggest impact on the potential building costs. The last step, 5, assessing possible risks of the development and construction phase. This should give the developer an understanding of the possible risks and benefits (Wilkinson et al., 2014) (Remøy et al. 2024).

The programmatic quick scan:

The programmatic quick scan is a four-phase scan that looks into how to fit functions into an already existing location. It is a design method that has as a benefit that it conveys clearly the possibilities of an existing building (Wilkinson et al., 2014). But it seems like a rather tedious process as the feedback loop is at the very end of the process diagram, something that should be tried to avoid (Koutamanis, 2022). The architects' method is a methodical way of studying and analysing by designing a transformation of a project. It resembles the practical application of the beforementioned programmatic quick scan.

Architectural value:

Architectural value is a method instead of an assessment tool. It assumes three layers of time: commencing, ageing and continuing. Within this timeframe the building elements of space, structure, substance and services are studied. It is mostly a method of determining the economic value of an existing building (Wilkinson et al., 2014).

The ABT Method:

The ABT method consist of three steps: inspecting the building, controlling and valuing beside these also assessing the condition, legislation and quality of the location. The method is structured as a tree diagram (Wilkinson et al., 2014). It has a lot in common with the architectural value method, but it divides the building in different parts instead as a whole. Therefore, useful in projects where partial transformation will take place.

3.5 Theoretical framework

In this paper the theoretical framework is based on the 3P framework of Elkington (1998) wherein the three pillars of sustainability are defined by the indicators given by the recommendations of CES (2014). In table 3. the relationship between the theoretical framework and the theory is made clear.

Using the table as the basis, the theoretical framework is shown in figure 3. Wherein each of the three P's is supported by three driving values of their respective domains. Each based on the recommendations of CES (2014).

As already mentioned, the theoretical framework will be used for the case studies. First and foremost, the topics for the questions in the interviews will align with the indicators as seen in table 3. In a way the interviews are structured by these indicators. Furthermore, these indicators will also be the basis for the deductive coding when extracting the findings of the interviews. At the same time, the case studies will also give feedback on the framework regarding missing values.

The indicators indicate the presence of the correlating value. The indicators are described in the theory. A summary is given here to give an overview of the indicators.

For the value heritage the indicators are: Social, Historic, Scientific and Aesthetic. The Social indicator is present when there is attachment to the building by the stakeholders. The Historic indicator is depended on the given significance of the history of the place. The Scientific indicator is depended on the archaeological value of the location. The Aesthetic indicator is the significance given to the outward appearance of the building.

For the future user the indicators are: Accessibility, Affordability and Use-value. The Accessibility indicator relates to the accessibility of the target groups for the transformations. The Affordability indicator is depended on how financially affordable the transformation is for the target group. The Use-value indicator is depended on the usability of the end-product for the intended future user.

For the neighbourhood value the indicators are: Diversity, Community and Supportiveness. The Diversity indicator is depended on the presence of different social-economic groups within the same neighbourhood. The indicator Community is depended on the connectiveness within the neighbourhood. The indicator Supportiveness is depended on the connectiveness within the transformation project and between the households.

For the circularity value the indicators are: Waste creation and CO₂ production. The indicator Waste creation is depended on the amount of building waste created during development. The indicator CO₂ production is depended on the amount of CO₂ that was produced as a consequence of the development.

For the value energy consumption the indicators are: Energy usage and Energy transition. The indicator Energy usage is depended on the amount of energy used during the exploitation of the transformed building. The indicator Energy transformation is depended on the share of renewable energy used in the transformation project.

For the ecology value the indicators are: Use-value and Non-use value. The indicator Use-value is depended on the added greenery that also improves the use-value of the transformation project, e.g. green roofs to cool the building down. The indicator Non-use-value is depended on the

measures taken to improve the ecology without a clear direct benefit to the transformation project itself, e.g. lowering nitrogen emissions during construction.

For the value of investment costs the indicators are: Building costs and Ground costs. The indicator Building costs is depended on the financial cost of the construction of the transformation. The indicator of the Ground costs is depended on the procurement costs of the existing structure that is to be transformed.

For the value IRR & risk the indicators are: IRR and Risk. The indicator IRR is the profitability of the transformed object based on its yield. The indicator Risk is the product of the probability and impact of certain risks that come up with the transformation project.

For the value Market value the indicators are: LTV and Market value. The indicator LTV is the share of the investment costs that needed to be loaned. The indicator Market value is the market value after the development of the transformation.

Theoretical framework	based on CES (2014)			
Value	page	Indicators	defined by	supporting literature
People				
Heritage	<i>Physical indicators of social capital</i>	P 48	• Social • Historic • Scientific • Aesthetic	social attachment History of the place perservation of archaeological sites perservation of architecture (Australia ICOMOS, 2013) , (Jones, 2016) & (Johnston, 1994) (Australia ICOMOS, 2013) (Australia ICOMOS, 2013) (Australia ICOMOS, 2013) , (Remoy, 2024)
Future User	<i>Human capital</i>	P 95	• Accessibility • Affordability • Use-value	(% available for targetgroup (% affordable for target group usable for target group (Jiang et al., 2020) , (Fisher et al., 2009) & (Lakhani et al., 2019) (Luffman, 2006) (Glumac & Islam, 2020)
Neighbourhood	<i>Social capital</i>	P 45	• Diversity • Community • Supportiveness	socio-economic status connectedness neighbourhood connectedness households (Galster & Friedrichs, 2025) & (Bratt, 2012) (Savelli & Morstyn, 2021) (Eibach & Historisches Institut der Universität Bern, 2014)
Planet				
Circularity	<i>Mineral resources</i>	P 171	• Waste creation • CO2 production	BCI MPG (Khadim et al. 2023)(Remoy, 2024) (Fraanje et al. 2021)
Energy consumption	<i>Energy resources /renewable energy</i>	P 171	• Energy usage • Energy transistion	kWh/m ² /year % renewable energy (Aedes, 2021) (Aedes, 2021)
Ecology	<i>Ecosystems</i>	P 33	• Use values • Non use values	Added "green" in tonnage Emmision of nitrogen (CES, 2014)(Rodrigues & Freire, 2021)(de Zeeuw, 2018) (CES, 2014)(Vugts et al., 2023)
Profit				
Investment costs	<i>Financial Capital</i>	P 95	• Building costs • Ground costs	€/GFA €/m ² (Pape et al. 2025)(Rodrigues & Freire, 2021) (Ministerie van Infrastructuur en Waterstaat, 2024)
IRR & risk	<i>Economic Capital</i>	P 95	• IRR • Risk	% Checklist risk (transformatiemeter) (Conijn 2023)(Yan & Zhang, 2022) (Wilkinson et al. 2014)
Market value	<i>Physical capital</i>	P 133	• LTV • Market value	<85% € (Conijn 2023) (Conijn 2023) (Wilkinson et al. 2014)

Table 3: table with an overview on how the literature is connected to the theoretical framework, own work 2026

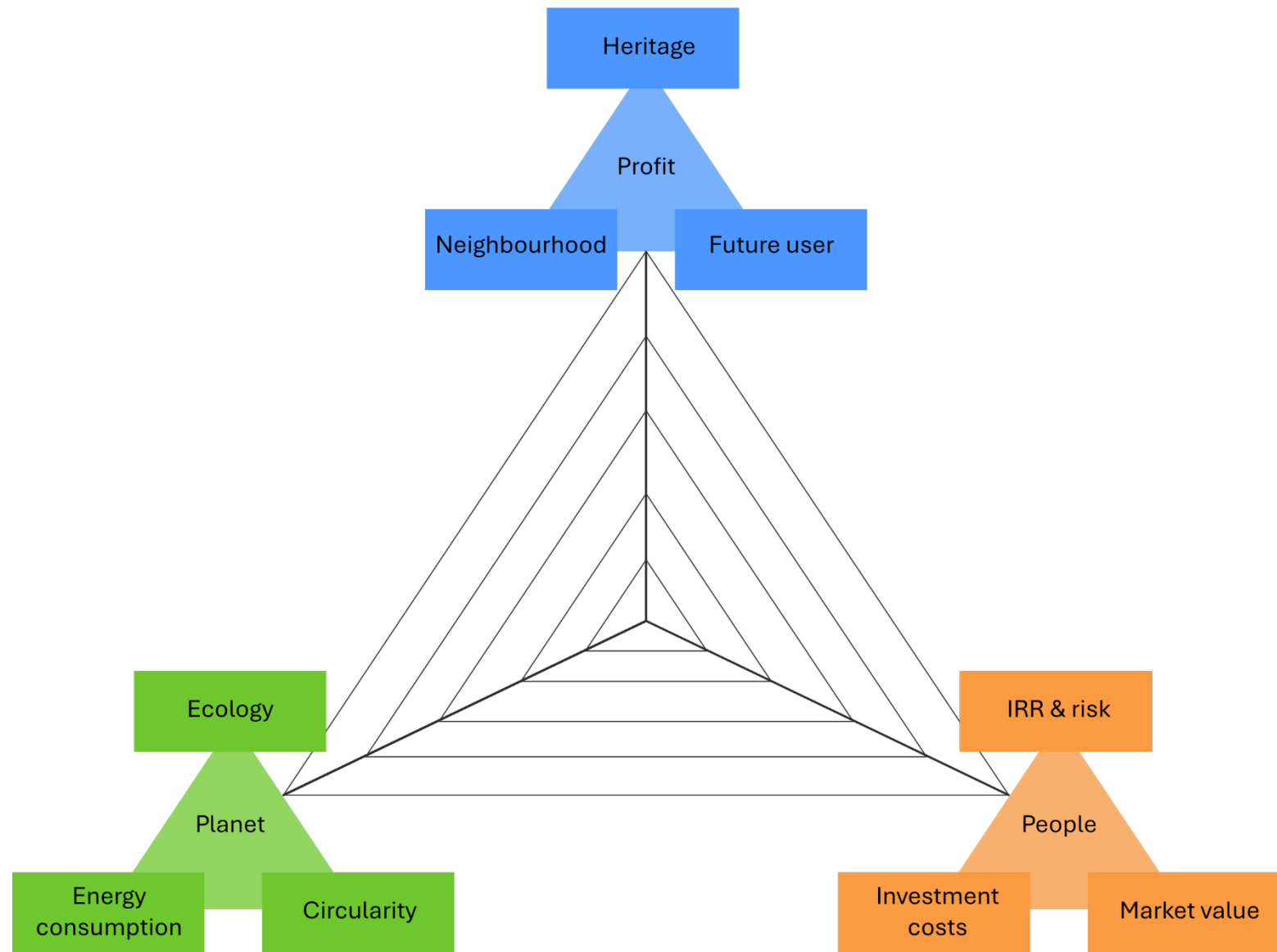


Figure 3: valuation framework: Own work, 2026

3.6 Paradox perspectives

Combining the previously mentioned values of the framework will result in conflicts of interests. Greco (2024) mentions that only focussing on one aspect (e.g. energy transition) will be detrimental for other aspects (e.g. the aesthetics) of the building. In the case of transformations this is even more paramount as these kinds of projects are complex in nature and often the solutions implemented are not optimal (Filippidou et al. 2017). To combat this paradox perspective is a possible solution.

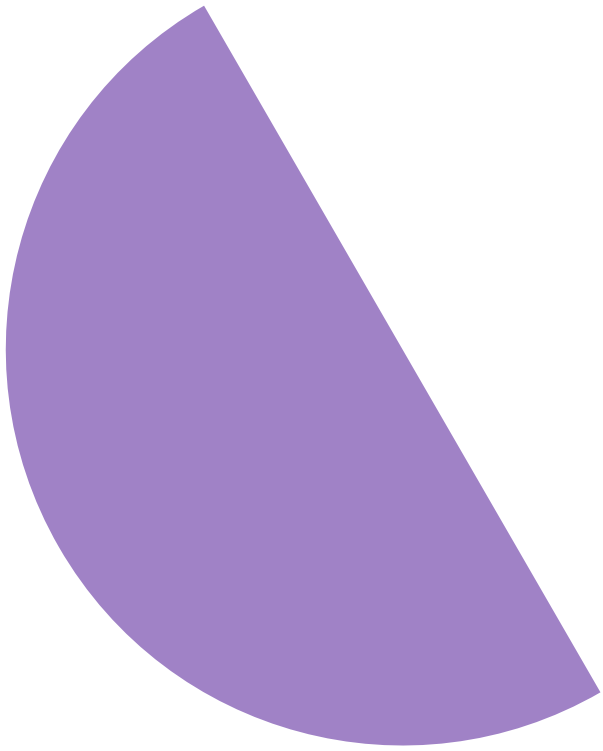
Paradox perspective has long list of beneficial effects when used. Greco (2024) sums them up as follows: the development of new strategies (Smith et al. 2013), achieving multiple goals at the same time (Smith & Besharov 2019), fastens innovation (Raisch & Zimmermann 2017), improves sustainability (Jay 2013) and is beneficial for the creatives process (Rubin et al. 2023). Important for this paper is the development of new strategies as that is the main point of this paper.

This method puts seemingly contrasting concepts and values together and compares them with each other. It differs from trade-offs in the sense that it is not an either-or question but acknowledging that the decision is multifaceted. Paradox perspectives do not magically solve the problems created by conflicting values, but it will give a better understanding of the problem at hand and what the unintended consequences will be if ignored (Greco & Long, 2022). That is the reason that finding missing values are important as with a missing value the value is per definition ignored.

The value of using paradox perspectives in relation with the 3P framework was already underlined by Hahn et al. (2014). Realising the conflicting values between the three domains of economic, environmental and social, they developed a framework on how to use paradox perspective within that framework. This framework will not be used in this thesis fully utilised as the framework is based on long term development of sustainable policy. It will be promoted as a possible way to further develop the valuation framework of this thesis in the future.

Within this thesis the paradox perspective will be used to find the conflict between different values and how these are tackled. It further is the main justification to look for missing values and possible blind spots within both the theoretical framework as in the case studies. For the expert panel the paradox perspective will be used as the basis for the discussion, values will be contrasted with each other to force

Results



4

4. Results

4.1 introduction results

In the following chapter the cases as mentioned in the methodology will be analysed using both the interviews and the provided documentation. This is to extrapolate the values that drive transformation for both non- and for-profit parties, thus answering RQ 2 & 3. The order of these cases will be: eerste Helmerstraat, Zoetelaars passage, District U and Hillside. Each case is divided into a case description and a rich description of each of the values based on the theoretical framework divided in the three domains of people, planet and profit. After which highlighting the values of the case studies in a short summary is added to each of the cases. To visualise the findings the values are put in a spider diagram as explained in paragraph 2.1.4 of the methodology.

Case 1

Eerste Helmersstraat

Amsterdam



Photo Timon Kuiters, 2025

transformation	School into social housing
GFA	970 m ²
housing units	23
size	18-30 m ² per house
party	Rochdale
year	ongoing

4.2 Eerste Helmerstraat

4.2.1 Case description

The Eerste Helmerstraat is a school building with monumental status within the municipality of Amsterdam. It dates from 1910 and was protestant Christian Kindergarten (Fröbel-school), primary-school and a M.U.L.O. school. The façade and interior are decorated and in the architecture current of rationalism and a very early example of 20th-century rationalism. Therefore, conservation of this heritage is an integral part of this project as the school ceased to function as a school in the 1970's.

The project Eerste Helmerstraat is part of a package deal with the municipality of Amsterdam and Rochdale. Where they transform a number of small monumental buildings into social housing to house youth (people younger than 23 years) and *statushouders* (immigrants with a (temporary) permit to stay in the Netherlands).

When the building was proposed to the housing association it was at first the idea to split the building in two parts. One part for the kindergarten and one part of the housing association. Unforeseen was that one of the existing tenants of the building had *kooprecht* (the right of procurement) and used it. Thus, the building will be split into three owners. Due to construction works at the foundation the kindergarten had to relocate, now the municipality of Amsterdam will be the third owner.

The school will be transformed into 23 small apartments, with apartments ranging between 21 and 32m². With relatively big hallways due to heritage related regulations. The complex will be all electrical without the use of natural gas.

The location is near the Vondelpark in Amsterdam. It is considered as a strong social-economic neighbourhood with almost no social housing in the area.

4.2.2 Analyse

4.2.2.1 People

- Heritage

As mentioned in the description of the case, this building is monument. It falls therefore under strict regulations. This restricts the freedom of design that is needed to come up with regulations. Therefore, in the interview's heritage is barely mentioned as a value. In accordance with the theoretical framework, it still is mentioned as a value. Mainly the indicators aesthetic and scientific are mentioned. It is mostly about preservation of the building as an archaeological site and for its architecture and maintaining it. But these values were mostly seen as values for the municipality of Amsterdam. The market value that is often related to heritage was not mentioned as the market value of the project was mostly due to its location. Neither was the heritage value seen as a specific value for the future users.

The historic and social value of the place was not really mentioned in the interviews and while the historic value was mentioned in the documentation of the project. It was just mentioned descriptively, not really highlighting it as a value. Social attachment to the place was not mentioned. Which is surprising as schools are usually places of social attachment (Pacheco et al., 2022).

Outside of the theoretical framework was the mention of the building quality of working with heritage. For example, the height of the floors was seen as luxury that you nowadays don't work with today. Of course, it contrasts with the expected risk of working with older buildings. Such as not properly documented renovations, the amount of asbestos and the high maintenance costs.

- Future user

The municipality of Amsterdam decided who would be the target group for this project. Namely *statushouders* (immigrants with a (temporary) permit to stay in the Netherlands) and youth (23 years and younger). According to the interviews this was seen as beneficial mix of target groups. Accessibility to housing for this project is fully regulated by Rochdale. They will select and introduce the future users with both the neighbourhood and themselves.

Affordability of the housing is ensured at the front-end by the use of target group-policy. Which determines the rent-prices beforehand, thus ensuring that rent-prices stay affordable. But as mentioned in the theory, affordability is also determined by the location. That is bit of a mixed bag. As on one hand a lot of facilities are near by either by cycle or public transport, thus lowering transport costs throughout the week. On the other hand, the neighbourhood the project is in, is not considered affordable. So, a lot of the aforementioned nearby facilities may not be affordable for the target groups.

The use value is considered good for the target group. As the small apartments have some creative design solutions. That required someone that is agile enough to make it workable. The usefulness of the housing was also compromised by the heritage regulations and the strange construction of owners of the old school. Because of that the hallways are lot broader than they need to be and there is neither a shared or a private building linked outdoor space.

- Neighbourhood

The neighbourhood is seen as a strong social-economic neighbourhood with a lack of social housing. The adding of social housing in the neighbourhood was strongly seen as value by the interviewees and within the documentation. As one participant noted during the interview when talking about affordability:

"A cup of coffee there for less than €4,50 you'll not find it. So that is indeed not always affordable for the social target group. That's right, but it doesn't mean that we therefore should heap them all up around the cheapest supermarket." -Participant 2 Rochdale

It is clear that from the perspective of Rochdale, that diversifying neighbourhoods is seen as a value that needs to be pursued.

The neighbourhood itself is seen by the interviewees as a neighbourhood with a relatively strong sense of community. A community that responded positively on this new development. This is also due to the housing association actively seeking the opinion and approval of the neighbouring residents by organising evenings with both the neighbourhood and the future users. This way the housing association is both mitigating risks regarding the redevelopment of the school and fostering connectiveness within the neighbourhood. But it is unclear if connectiveness with the rest of the neighbourhood is seen as a value by the housing association.

As mentioned before when talking about the use value for the user. There is no building linked outdoor space. Apart from the hallway there is no shared space, all the apartments stand on their own. Although this seems like Rochdale does not see connectiveness between households as a

value. But in both the interviews and documentation there are mentions regarding this topic. In the interviews it is highlighted that the target groups are usually a good match for each other and that they will naturally seek contact with each other. In the documentation it is noted that they're looking for a design solution to create a common space within the building as it would benefit the target groups.

4.2.2.2 Planet

- Circularity

Regarding circularity the project has to conserve as much as possible of the building. This interesting thing is that unlike with most transformations also big parts of the interior will be reused. Of course this was mostly due to the regulations regarding heritage. But that does not mean that it is not seen as a value by Rochdale. As one participant mentioned:

"We are stricter with that (demolitions)... we provide conditions to the demolition party. Like certifications of sustainability. So no, we don't let the demolition contractor decide everything." - Participant 1 Rochdale

The interviewee noted that reusing the demolished materials back into the project is also an option they look at but it has to be in balance with the feasibility of the project.

CO2 usage wasn't mentioned but the participants did mention how the project will be an all-electric complex with no natural gas usage.

- Energy consumption

That is directly a bridge to this part. The switch to all-electric is mainly a switch towards renewable energy. This has to be seen as a value of the housing association as the installations needed for the transition were expansive and took up a lot of space on the roof on the building which could have been used for a common outdoor space.

For energy consumption Rochdale was looking on how to minimise it. Due to the age and heritage regulations of the building the effect of insulating the building is minimal. As the old construction creates structural thermal bridges that will lead to fungi, water damage and wood-rot. Interesting to see is that Rochdale did not purely design towards a certain level of energy-label.

"We also steer on energy-consumption. That we find more important than the specific label that will hang from it" -Participant 1 Rochdale

- Ecological

The ecological value of this project was hard to accomplish. This is due to the fact that the ground floor is mostly in hand of municipality, the roof is filled with installations and there is due to the heritage regulations no possibility of adding nesting boxes on the façade. The one good thing was that they also did not remove any flora or fauna from the development site. It is also not clear from the interviews if Rochdale sees the ecology as a value to pursue. It is certainly not mentioned in the documentation provided.

Due to the fact that it is an urban redevelopment there was also no mention of nitrogen emissions as there is no nature nearby it could affect.

4.2.2.3 Profit

- Investment costs

The procurement price of this project is relatively high. This is mostly due to the combination of time delays and using residual value as a way of appraising the building. In the meantime, the value of the building for the housing association did not rise while the costs of the realisation did. Rochdale did not renegotiate the price of the building to keep a good relation with the municipality. As one participant noted:

“We can not only pick the pearls from what is available and sometimes you just have to take something as it is.” -Participant 2

In other words, if Rochdale would only take on the projects from the municipality that are easy and financially interesting than Rochdale might seem like a profiteer. Here is another value at play that is missing from the theoretical framework, namely the value of image or perception.

Building costs are high for this project. But due to the small size it is still manageable for Rochdale. The reason for the high building costs is due to regulation regarding the heritage of the building. Conserving much of the building requires a lot of specialised tradesmanship which is expensive. Furthermore, insulating the building while conserving it makes it hard to do properly as mentioned before. The design and planning costs are due to the time delay and the needed creative design also higher than normally.

When asked why even though the realisation costs are unfeasible this project is still getting developed the answer lies on one hand in pleasing the municipality as mentioned before and on the other hand because of the extraordinary location. Transformation is a good way to break into already existing neighbourhoods where the housing association is not active and that is also worth the costs.

- IRR & risk

Interesting on the approach of Rochdale is that the rent is determined beforehand so that it will fit the target group. Therefore, to make a project more financially viable, it is better to add units than create more living space per apartment. This is also what happened with this development, where Rochdale first intended to develop 22 apartments within the building but ended up with a design for 23 apartments. But in terms of financial feasibility when developing a property is mainly focused on the investment costs and not on the (potential) exploitation of the development.

Changing the design from 22 to 23 apartments was a risk as the zoning plan was already determined on 22 houses. This was risk Rochdale was willing to take due to the good relations with the municipality and the positive feedback they have had with the neighbouring residents. Apart from this risk, numerous other risks were discussed. But the risk that were due to the transformation are the risks of not precisely knowing what the state of the building is. Documentation on previous renovations are not trusted and deconstructive research on the state of the building can only take place after acquisition of the building. To mitigate this risk some money is put aside for unforeseen costs.

Apart from the age of the building, the heritage of the building was also seen as a risk. As mentioned before with the insulation, other factors were also hindered by it. Like the fire safety and the acoustics of the building were hard to realise. Another risk that was specific to this project was that one of the existing tenants had the right to procure his part of the building before the housing association and the tenant made use of that right. This was unexpected and reduced the size of the development.

Risk management is a significant part of the decision-making process but some of the risks come up later. And once the commitment for transformation was made, occurring risks were taken as part of the development.

- Market values

A big part of the financial accountability of this transformation project lies in its market value. The location of the building is in such a good location that, if need be, the building can always be sold and no loss would be incurred. But it is unsure if the project is marketable for the market price due to the assigned function within the zoning plan.

Otherwise, the market value did not really make an impact on the decision-making process of the project.

4.2.3 Summary case Eerste Helmerstraat

In the case of the Eerste Helmerstraat there are some clear values that are important for the realisation of it as can be seen in figure 4. These are the future user, neighbourhood, energy consumption and the investment costs. While the values that score low in importance to Rochdale are heritage, ecology and the market value.

Overall does it show an focus on the domain of people and a particular interest in the neighbourhood. Although the investment costs score even higher has to do within the context that almost every value is related to the investment costs. Therefore often the most impactful value as it can limit or expand the impact of the other values. Energy consumption can also be seen as part of the people domain, as Rochdale explicitly mentions that energy reduction is more important than an energy label. With the recent rise in energy costs, this can also be understood as part of the indicator affordability.

The lower scoring values of heritage, ecology and market value each have their different underlying reason. The heritage value is considered as low, not because heritage itself is seem as unimportant but because it increases the investment costs to such an extent that the project becomes unfeasible. The ecology value is mostly missing because there was no practical solution to implement ecology within the project. While the market value can be seen as a missing value. From the interviews it can be seen as an afterthought that does not get much, if any importance.

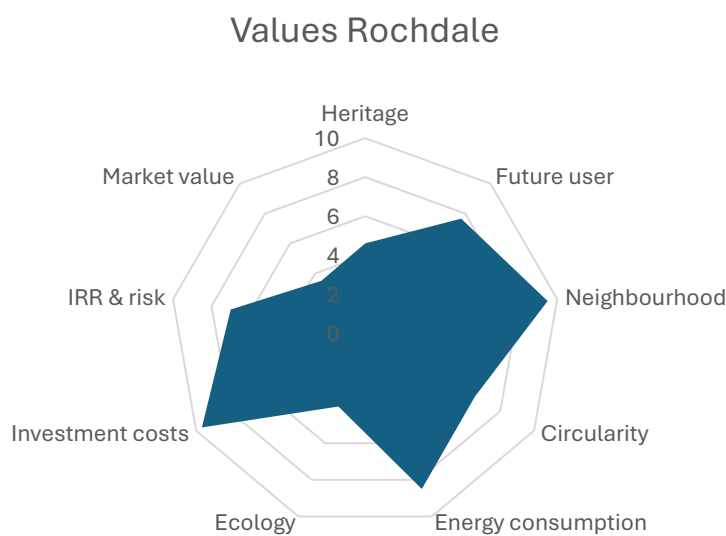


Figure 4: Spider diagram of the driving values of Rochdale, with 10 being very strongly driven by and 1 not at all; Own work (2025)

Case 2

Zoetelaarspassage

Almere



Photo Timon Kuiters, 2025

transformation	Offices into social housing
GFA	5.720 m ²
housing units	90
size	40-86 m ² per house
party	De Alliantie Ontwikkeling
year	2018

4.3 Zoetelaarspassage

4.3.1 Case description

The Zoetelaarspassage is located in Almere and is redeveloped by De Alliantie Ontwikkeling. It redeveloped offices above an indoor shopping centre. The original building comes from 1982 and never had any other function than offices. The transformation was realised in 2018.

Due to the vacancy within the offices a developer inquired on how to transform the building so that a housing association will buy it over. As only social housing was permitted by the municipality. They came into contact with the De Alliantie Ontwikkeling and they came to an agreement.

At first it was the idea that the building would get an extra floor for housing upon the roof but this was delayed. As of now also that extra floor is realised for mid-segment rental housing.

The offices were transformed into 90 units with a floor-area between 42 and 86 square meters, all social housing. They can be accessed via the gallery above the shops and above the hallway is a skylight. Interesting is that the transformation took place wholly inside the building and apart from adding some balconies, the façade was left in the original state.

4.3.2 Analyse

4.3.2.1 People

- Heritage

Due to the relatively young age of the building, there was no heritage value to speak of according to the participants from De Alliantie Ontwikkeling. Thus, in this case it was a missing value that did not occur while developing this project. None of the indicators (social, historic, scientific or aesthetic) were present and the reason for the conservation of the building lies mostly with the municipality and shopkeepers to keep the building as a whole intact.

When taking a broader scope for the heritage value at the Alliantie ontwikkeling. They do not look for heritage to redevelop. And when it is the case of transforming heritage it is mostly keeping in line with the rules and regulations of the municipality.

- Future user

The accessibility of this case is hard to determine as there was no specific target group set for this project. The reasoning behind this rationale is that there is such a big housing shortage that every house created helps with the housing crisis that plagues the Netherlands. With one participant noting about the housing above the transformation:

"I have talked with 5 (future residents) who said that it was living beneath the bridge or this house. So yea maybe a bit exaggerated but you see how much pressure lies on these things (finding housing). So, if we get the chance of something of which we think it can serve our target group than the decision is made very quickly." -participant 2 De Alliantie Ontwikkeling

Due to the size of apartments these houses were targeted mainly towards one and two person households. The future users were usually starters and people from the neighbourhood.

Affordability for the users is also ensured by taking into account the effect on the target group when assessing the product. But there are certain expectations regarding internal rate of return on the project. For this case the social impact was great enough to accept a lower rate of return.

Interesting to note was the focus of one of the participants on the installations of the building. The comments were twofold. On one hand it is good to look at the different types of installations and not only how they impact the investment costs but also the living costs of the future user. But this participant went further with declaring that affordability is more important than sustainability.

"It can be sometimes super sustainable, but for the tenant it doesn't make a difference. So those are more the parameters we look at." -participant 2 De Alliantie Ontwikkeling

The use value of the housing is mainly driven by the size of the housing. As for transformation the apartments have a sizable floorspace. They are single-story houses that can be accessed by broad hallways and with the use of elevators. It is also near a lot of utilities due to the fact that is placed above a shopping street.

But with regards to heat and noise there are some complaints from the users. The users experience that the walls are letting too much noise through from their next-door neighbour. Even though the walls do comply with the rules and regulations. The heat is also an issue, especially on the hallway's direct underneath the skylight. This is worsened by the lack of the possibility of some houses to effectively ventilate their homes using the windows. This problem was partially tackled by De Alliantie by placing some airco-units in the hallways.

- Neighbourhood

The neighbourhood was described by the participants as lacking in social-economic strength. So much so that De Alliantie Ontwikkeling delayed the development of the houses on the rooftop as if it was not certain if the facilities in the neighbourhood could handle the sudden increase of 124 houses in one go. By adding first the social housing the Alliantie did not take diversity into account, but this was also regulated by the municipality.

When later on it was decided that the neighbourhood could facilitate more housing, it was decided to add more houses on top. In this case the housing association added mid segment rental housing and therefor adding to the diversity of the neighbourhood. On participant did note that normally diversity within the project is also a target within de Alliantie but in this case both types of housing are segregated.

There was no mention about connecting the people of the neighbourhood with the people from the transformation within the interviews or documents. This probably due to the nature of the professions of the participants who are more focused on the financial side of the project.

But on the other side they did mention that the housing association plays an active role in connecting the households with each other. Especially with appointing housing to the future residents. But this is no different than in relation to other projects of the housing association.

4.3.2.2 Planet

- Circularity

Regarding circularity this project is not the most interesting. Circularity is seen is very recent development and this project was developed by another developer and came into the hands of the housing association turn key. In this project transformation was seen as sustainable enough and the demolition materials for the accountability of the contractor. When taking the circularity concept to other projects of de Alliantie Ontwikkeling it is seen as important but it was also stressed that it needs to be in balance with the other values.

CO2 usage wasn't mentioned but the participants did mention how the project is probably using natural gas for heating.

- Energy consumption

In regards for the energy usage the Zoeterlaarspassage was only marginally improved due to the relatively young age of the building. And because of lower regulations when this project was realised this project seems less sustainable than the other cases. So, for this case it has label B, but nowadays de Alliantie Ontwikkeling would strive for label A.

In this project they also still used natural gas as the way of heating the building. So, there was no transition towards renewable energy. Also, for this goes that in the past years this has changed and just like with the energy label the ambitions have become bigger.

- Ecological

There was no mention of increasing the ecological value in any way within this project. Neither any further mention of ecology in other projects. Arguing that De Alliantie doesn't look at this value at all is an argument from silence and this case in particular doesn't lent itself to add any ecological value.

Due to the fact that it is an urban redevelopment there was also no mention of nitrogen emissions as there is no nature nearby it could affect.

4.3.2.3 Profit

- Investment costs

Because of the turn key nature of this project there was only indirect steering of the project from the Alliantie Ontwikkeling. But it still influenced the overall investment costs. The biggest impact is the decision of not building the new floor on top of the roof. Apart from the worries about the impact on the neighbourhood it was also seen as a too expensive investment.

There was a decision to keep the apartments smaller and the hallways broader. This is due to the facts that hallways are cheaper to build and maintain and adding extra floorspace for the apartments wouldn't result in extra rental income.

Another interesting thing is that balconies were also added to apartments with a floorspace less than 50m². This is something that De Alliantie had to make an active decision about as this falls outside of the regulations required by *bouwbesluit* (Dutch building regulations).

In the experience of both participants transformations have higher building costs on average than newly build.

The ground costs of this project are higher, which is because of the following reasons:

- The building already got the new function in the zoning plans of the municipality therefore increasing the market value of the ground.
- The possibility of adding housing units to the roof. This was also taken into the zoning plans of the municipality.

The Alliantie Ontwikkeling usually tries to be proactive in searching for potential transformation projects. And by proactively searching for them it can try to procure offices before the zoning plan changes and therefore procuring the location for a lower price than what ground costs for housing would usually go for. It can do this as de Alliantie Ontwikkeling is a company and not a housing association after realisation the development is turned over to the housing association de Alliantie. Other housing associations that do not have their own separate companies like the Alliantie cannot take part in these kinds of investments due to rules and regulations that are meant to keep housing association financially responsible.

Even though the Alliantie Ontwikkeling is trying to be proactive in buying up offices for transformation. A lot of these endeavours break on the taxation of the office. While the Alliantie Ontwikkeling value the building by the physical condition and location, many potential sellers are valuing the property by the potential income of the office even though the office might be vacant. Because of this de Alliantie Ontwikkeling usually offers less than the potential seller was counting on and quite a lot of projects strand because of this.

- IRR & risk

The IRR is determined by the asset manager of the housing association and while it is not ignored it is not the main part of determining the feasibility of the project. The investment costs and the *BAR (Bruto aanvangs rendement; Gross initial yield)* are usually the indicators used to make a decision regarding the continuation of the project. That does not mean it is not used at all. Also, for the IRR there are requirements set up by de Alliantie. But this is less strict and usually not per project but bundled up with bunch of projects. This is also to make it possible to realise some

projects that have a great social and/or sustainable impact but on their own are financially unfeasible.

In this case the project did meet the required IRR.

Risks regarding this project were mostly fiscal risks. There was uncertainty how this project would have been seen by the tax authorities. They mitigated the risk by checking the project with a specialist and placing the risk with the developer. Due to the nature of a turn key project a lot of the construction risk and the like were the risk of the developer and not of the Alliantie Ontwikkeling.

With other projects of the Alliantie Ontwikkeling they try to prevent a lot of the construction risks by going for transformation projects that transform relatively young buildings. As older buildings are seen as more prone for unpleasant surprises. Further risks that are particular for transformations according to the participants are the logistics, fire safety and accessibility. The logistics because a lot of the projects are in urbanised areas and that adds complexity to the project. While fire safety and accessibility are harder to realise within an already existing building. As the floorplan of the existing building may not fit the new function of living.

Time was also mentioned in relation to transformation projects by de Alliantie Ontwikkeling. In two aspects time was mentioned. First of all transformations are often time efficient as usually there is still a tenant for a few years. So even though all the preparation work before construction may be as intensive as with newly built, you either do not have to finance the procurement yet or there is a temporary cash flow to offset the costs. The other aspect time and transformations work well is the possibility of a short construction phase.

- Market values

The market value is most important at the front end of the project. As the procurement of the building is one of the biggest parts of the total investment costs. The Alliantie Ontwikkeling values buildings as in their current state. This is also a form of mitigating risks. By buying the building for a realistic price it can be sold without loss even without transforming the building. For instance, because the municipality doesn't want to change the zoning plan.

Also, the market value is calculated after the realisation of the project, also with this case. But it was not mentioned as a deciding value of determining if the project is a success. Because as was seen within the documents, the liquidity of the project is limited. In other words, this given value is stuck and cannot be easily used. Especially during this realisation of this project, a higher value on the property meant also a higher fiscal burden. Nowadays housing associations in the Netherlands are exempt from this tax.

4.3.3 Summary case Zoetelaarspassage

In the case of the Zoetelaarspassage there are some clear values that are important for the realisation of it as can be seen in figure 5. These are the future user, circularity, the investment costs and the IRR & risk. While the values that score low in importance to de Alliantie are heritage, neighbourhood, ecology and the market value.

Overall it shows a focus on the financial side of the case. This is to be expected as both participants expressed their affinity with the business case and less so with the social side of the project as it part of another department. Even though the participants did state that, they also both strongly expressed the need for availability of affordable housing. Hence the high future user

value. Especially the indicator of affordability which was placed above the indicators of IRR, circularity and ecology. The IRR & risk and the investment costs are seen as tool to achieve the goal of creating affordable housing. That circularity scored so high on the spider diagram has to do with the time of the project. The project is a case from 2018, when circularity was not a standard part of investment assessment. Therefore this study took the present stance on circularity of de Alliantie into account.

The lower scoring values of heritage, ecology and market value have a very similar result and underlying reasoning as in the case of the Eerste Helmerstraat. Heritage, even though not a part of this case, is avoided in new transformations as to prevent increased investment costs, mainly the building costs. Ecology was also missing a practical application in this case. While the market value scored low because of the low usability of the value after the realisation of the project.

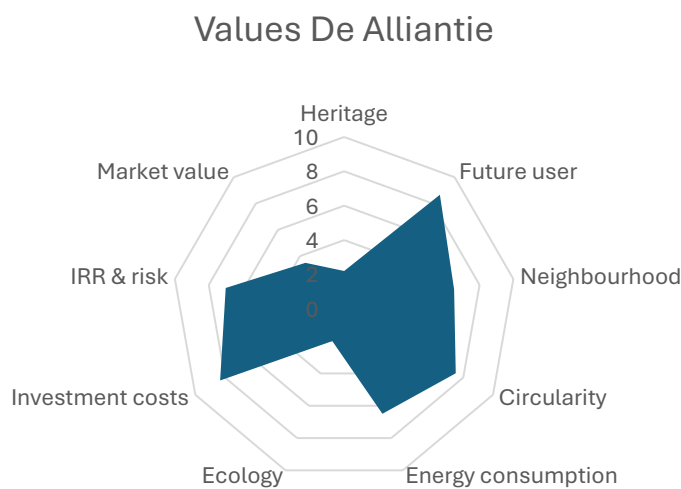


Figure 5: Spider diagram of the driving values of De Alliantie, with 10 being very strongly driven by and 1 not at all; Own work (2025)

Case 3

District U

Vlaardingen



Picture Studio for New Realities, 2025

transformation	Offices & laboratoria into housing
GFA	Area Redevelopment
housing units	700-800
size	60-160 m ² per house
party	Leyten & Studio for New Realities
year	ongoing

4.4 District U

4.4.1 Case description

District U is an area redevelopment of the old Unilever complex in Vlaardingen. The complex were mostly laboratories and offices from the 1960's. Unilever decided to concentrate all her laboratories in Wageningen near the university thus vacating their location in Vlaardingen. The Adrighem group as neighbours got the first possibility to buy up the area. To split the risk, they shared the investment with Leyten a developing investor.

The project is used by the municipality to create housing, a way to the river and to conserve the heritage of the place in which many citizens of Vlaardingen have worked.

Leyten and Adrighem developed a masterplan for the area and selected which buildings to keep and transform and which buildings to demolish and keep. For this thesis the most interesting cases within this project are:

- building A: A laboratory that is being transformed into mid segment rental houses and high-end housing. It is an iconic building that is seen as the entrance of the new District U, with a strong horizontal direction in its architecture.
- Building B: A laboratory in the shape of a U or V. It was first considered as good project to transform into housing. But it was later decided to still demolish the building.
- The auditorium: The entrance of the old Unilever complex. It has an interesting architecture and has a high heritage value but it is hard to transform into a sellable function. Still, it was decided to keep and transform the auditorium.

On the bigger scale: About 750 houses will be realised within the area development with a mixed functions within the neighbourhood, like education, cafés and workplaces. Two newly build apartment complexes will be social housing and sold to a housing association. They start construction in 2025.

Studio for new realities is one of the main advisors of this project and they have also been interviewed beside Leyten. They are a broad architecture/urbanism firm, beside design is the firm also often involved in research. In this case helping with their research the deciding factors for transforming or demolishing existing buildings. The indicators they have used were: usability of the building, architectonic quality and potential.

4.4.2 Analyse

4.4.2.1 People

- Heritage

The Unilever Complex does not enjoy any legal protection as it is not listed as a monument although the municipality still tries to ensure some conservation of the site due to the heritage value of the site for Vlaardingen. Mainly the social heritage is mentioned here and is also echoed by one of the participants.

“Unilever was a big employer and, in my youth, there were friends and family who had a job there”
-Participant 1 Leyten

Even though the heritage value is present within the development team the historic value of the place is not often mentioned. The historic value is seen mostly as what it can provide, mainly aesthetics and give character to the district.

“It also gives character to the place, so thinking from the transformation mindset. If you flatten a whole neighbourhood then you lose the soul of the place.” -participant 2 Leyten

This is also visible in the repeated mention of the value of the aesthetics of the heritage. This does not result in more conservation of the transformed buildings. The buildings may be adjusted to enhance their aesthetics and or other functionalities. This is seen with building A which, although it is being transformed gets a fully new façade with other materialisation than the old concrete. Another case which underlines the influences of the aesthetics on the value of the project is the mention that some of the buildings were not transformed because of their low architectural value.

There was no mention of scientific value of the place.

Adding to the heritage value is the added quality old buildings have. Mainly the example of the increased floor heights was used. As new development is mostly focussed on making the project as efficient as possible, therefore higher floor levels are not built anymore. While this does add value to the end product. The participants noted that heritage can therefore add quality that make the product more marketable.

- Future user

As it is an area development, the district is place for a mix of target groups and therefore the development team went for a broad approach in facilitating for a plethora of target groups. From social to free market and from young to old. It is the aim to make the neighbourhood as lively as possible and to that end a mix of functions and people are needed. But because of that accessibility of the case is hard to determine.

Affordability is also harder to determine on a bigger scale. Affordable is part of the plan, two apartment complexes will be social housing and a significant part of the new developed housing will be mid-segment housing. Further adding to the affordability of the area is the addition of facilities to the neighbourhood and the closeness of other facilities. Accessibility to the rest Vlaardingen will be improved and public transit is nearby making it possible to live there without the need of a car. One of the participants from Leyten mentioned it as one of the goals for this project.

As is the same as with the other indicators. The use value is harder to determine within an area development due to the diversity in buildings. Therefore, the focus lies on the three main buildings that were mentioned in the description.

For building A, the use value was determined to have both good qualities and parts with needed adjustment. The high floor heights were the most often mentioned quality of building A. Floor heights of four meters is not something that would be realised with new developments. Furthermore, the noise was seen as a quality. With the standard building regulations, the façade experiences too much noise. But after visiting the site Leyten decided that the noise was not that bad. On the contrary it gave the place character as it was mostly harbouring related noise and to hear that in combination with the wind is a greater quality then some closed in balcony.

Less so were the construction and the daylight exposure within the building. The construction of the building was quite massive and did not lend itself for housing. The construction therefore needed significant adjustments to be useable. The problem with daylight was that the building itself was too broad to have apartments with a through-room. Therefore, a central the apartments need to be connected with the use of a central hallway.

For building B, the usability was also not perfect. Mainly its placement of the escape routes was unusable and the overall state of the building was less than first thought. But it was not the main reason why building B was demolished.

The auditorium was expressed by the participants as unsellable because of its low use value. It is hard to make it fully usable to someone as the auditorium is only really usable as a conference room. To make the needed adjustments for a potential tenant Leyten first wants to know the tenant and what he wants. This way Leyten mitigates the risk of constructing something that nobody wants. The reason why it was kept was due to its heritage value as mentioned before and due to complications with its construction.

- Neighbourhood

Interesting to this project is that the whole neighbourhood is being constructed. As already mentioned, diversity is one of the indicators present within the project because of the goal of creating a lively neighbourhood. The project is promoted to people with a different social-economic background. It is present as an indicator but was not mentioned as value, it seems to be more of a byproduct of the value of diversifying the portfolio to create affordable housing. As illustrated with the following quotation:

"We want to make affordable housing, thus during the entire design process we have looked at the programming and the setup of the construction and which types of houses can be created therein and how big will they get? And you relate of course those to how affordable the housing will become and in which price segment they will fall and then you try to come to good mix." - Participant 2 Leyten

Interesting to note is that Leyten also diversifies within the different blocks. But the social housing is in separate complexes as to make it easier to manage for the housing association that procures them.

As the neighbourhood is still in development there is of yet not really a community. But that doesn't mean the values is missing. From the beginning on residents from Vlaardingen were involved with the project and could share their insights for the zoning plan. District U is also being promoted to the residents of Vlaardingen as to not create a neighbourhood that consist entirely of newcomers. In this way Leyten wants to keep the connection with the rest of Vlaardingen through community.

Furthermore, the neighbourhood will be designed in such a way that community building will be facilitated. For example, with the presence of public spaces for different target groups, shared entrances and the auditorium can be used by the public. Interesting to note is the role that heritage gets from the participants. The participants underline that giving character to the neighbourhood gives a place a feeling of belonging.

According to the participants the main reason to demolish building B was to create a connected neighbourhood. Mostly from an urbanism point of view. It is one of the main interventions to really connect District U with the rest of Vlaardingen. The other being the narrowing of the main road between the two districts.

For the connectedness within the different apartment complexes, it is different. That is mostly facilitated with the shared entrances and their own outdoor area. But otherwise, no real involvement.

4.4.2.2 Planet

- Circularity

Because the Unilever complex was still in use until it was sold, it was sold with all the office and laboratory equipment. These were sold to interested parties as Leyten could not use it. And this is the theme throughout the project. First seeing if something can be reused and then concluding that it is either unfeasible or not possible to use. The stelcon plates (concrete plates usually used during construction) will be used for the roads. But with the façade in building A, the concrete was not deemed of high enough quality to be used. Another case was in their words very beautiful staircase in building B that was to be demolished. They wanted to reuse the staircase but it did not fit in any of the other buildings. So Leyten left it to the contractor what to do with it.

To reduce waste from the demolished buildings Leyten selected the contractor also based on circularity. It also helped that the most sustainable option was also one of the more affordable ones. But most of the responsibility of the circularity during demolition and construction lies with the contractor. Who will need to make a report regarding the handling of the construction and demolished materials.

The MPG was mentioned in this case. According to one of the participants there were deliberate choices for sustainable materials. Together with the sustainability goals for energy usage the project was eligible for sustainability discounts on the financing. In contrast the architect did mention briefly that for some of the new constructions they wanted to use wood but they had to switch back to a more traditional way of constructing.

- Energy consumption

The architect then went on about the installations and how to implement solutions to reduce CO₂ output. The reasoning behind these kind of installations was the affordability of for the end-users. He further mentioned that the entire district will be heated without the use of natural gas. This was indirectly also mentioned by the other participants who talked about a WKO (thermal energy storage) being implemented for the whole district. Although they did have some doubts about the sustainability of it. As that depends on how renewable the electricity on the energy grid is.

About reducing the energy usage this thesis will focus back on building A as it being the main transformation of the project. The aim was to achieve an as high energy label as possible and this was done through insulation and looking at the installations of the building. The energy label and the connected financial value seemed to be the motivator behind this indicator.

- Ecological

Because of the scale of the project ecology is an integral part of District U. Required was a flora and fauna report. Wherein the fauna part has an influence on the project. As there is both a family of foxes and a bat colony. For the family of foxes, a new location is needed and for the bats nests will be implemented inside the façades. Other implementations regarding fauna are the adding of an insects hotel and a nesting place for a kestrel.

The area is connected to the Maaspark. The idea is to connect the greenery within District U to Maaspark. But the added greenery is mostly added of its use value. To provide shade in the public spaces and to combat the summer heat. Interesting is that the greenery is not used to retain water. Because District U is outside of the dikes there is no risk of flooding the streets during heavy rainfall as the water can easily escape to the river. Concerns for flooding from the river are low as the land is substantially higher than the river. There was also no mention of nitrogen emissions.

4.4.2.3 Profit

- Investment costs

The ground costs were taken as a whole. The total area was bought and the goal of the ground exploitation was to break even with each of the plots within District U. Even though this was a mostly internal exploitation different values were given to different plots. Plots where on the buildings needed to be demolished got a lower value then the plots where the building are going to be transformed. Because of the added value of the existing buildings.

For the building costs one of the participants was fervently stating that the building costs of transformation are significantly lower than newly build. Both participants from Leyten stated the importance of the business case and that while the building costs of transformation may be cheaper, but that is not always the case over the whole business case.

Of the specified buildings only for the auditorium did the participants specify certain aspects. Because of the low use value of the auditorium, as discussed earlier, expected was that the investment costs would also be low. But this was not the case. Due to the construction of an underlying cellar, it was less costly to maintain the current building as is. Only the ground floor will be transformed as of now as a restaurant while the upper level will be left as is. Because there is as of yet not a clear scope of what to do with that space.

For building A Leyten made some decisions that influenced the building costs. The façade will be constructed as new. This increased of course the building cost but it is better to maintain and made the building more marketable. Another decision that impacted the building cost was to keep one side of the apartments with a floorspace smaller than 50 square meters. This lowered the building costs as no apartment bound outdoor space, like a balcony is needed. But the lower costs also make it possible to offer affordable housing while still making a profit as a company.

There was no further mention of other costs, implicating that the main difference between transformations and newly build is centred around the ground costs and the construction costs.

- IRR & risk

As for-profit developers Leyten has a financial target to achieve. This goal is around the 10%. The reason for this percentage is to have some buffer when a project does not meet the target due to unforeseen circumstances. That is the risk a developer makes. Furthermore, this percentage is needed to make it competitive. As illustrated by one participant:

“If you take a return of 5% on your investment, well, then you are satisfied with too little. In that case you can better put it in the bank” -participant 2 Leyten

Risks that were mentioned in this case that were mostly related to transformation were the risk regarding unforeseen costs. Like the presence of asbestos or due too not properly documented renovations of the past. Even so that Leyten acknowledges these age-related risks, they do not see age as a risk in itself. As mentioned before, it gives some qualities that new buildings do not provide. Furthermore, as one participant stated that the façade is probably less durable than the underlying structure that is being reused.

Another aspect that was mentioned in this project is the phasing. Within an area development it is great to first have some existing buildings. If there are already some parts of the neighbourhood it is easier to sell the last few buildings. Therefore, start with the least risky project within the development and then work towards harder to achieve projects. This is seen in the case with the

auditorium because of its low use value and with changing the phasing of the tower to later on in the phasing. Building A is the first project that will be realised. This also underlines what the participants already mentioned about heritage that it gives a sense of belonging. Creating this sense through transformations is therefore also a way of risk mitigation.

- Market values

The market value of the already existing complex was done by group Adrighem and because no participants from Adrighem were interviewed this thesis cannot state how they were valued a priori.

The market value of the existing area was done via the use of ground costs and those were mostly done internally. As mentioned before the buildings were first assessed using the four criteria of: usability of the building, architectonic quality and potential. But throughout the interviews also other aspects came up that influenced the decision-making. Interesting is that one participant emphasized the sustainability value as being a value that may lessen the market value and or IRR. While the other participant emphasized the importance of creating a beautiful product for the future user.

Furthermore, since Leyten will also exploit the buildings, they develop the market value is less important than the investment costs and the internal rate of return.

4.4.3 Summary case District U

In the case of District U there are some clear values that are important for the realisation of it as can be seen in figure 6. These are the heritage, future user, investment costs and IRR & risk. While there is only one value that scores low in importance to Leyten. That is the value of ecology.

Interesting to see is that the score on the diagram spread pretty evenly between the three domains. Nonetheless there was a clear focus on the domain of profit. The IRR & risk scored highest and this has mostly to do with the emphasize of the participants of the importance of the yield of return and the business case. The investment costs were mostly mentioned in relation to the business case and less to improve other values with the exception of the future user. The indicators, accessibility, affordability and use value all scored high. The reasoning is threefold, on one side the marketability was mentioned as an underlying reason. The second reason was the willingness to create something to be proud of. The third reason was a shown intrinsic motivation to provide affordable housing. Although affordable housing does have another meaning than in the case of non-profit.

Heritage scores also high. The value of the heritage is mostly in its relation to three other indicators. These are the building costs, the marketability and the use value. The building costs as Leyten sees or only considers transformations with significantly lower building costs. The marketability as it would improve the character of the neighbourhood and thus increasing the market value & IRR of the project. Lastly heritage may provide specific qualities to the apartment. As certain aspects like heightened ceilings would not be implanted today anymore due to the ever increasing efficiency of construction nowadays.

The lower scoring value of ecology mostly has to do with the scale of the project. Because the project is an area redevelopment almost all values can be designed into at least part of the development. This is also one of the reasons why Leyten an overall high score. In that sense the ecology value is not a missing value but it more of an icing on the cake. Not the most important part of the development but definitely a part of it.

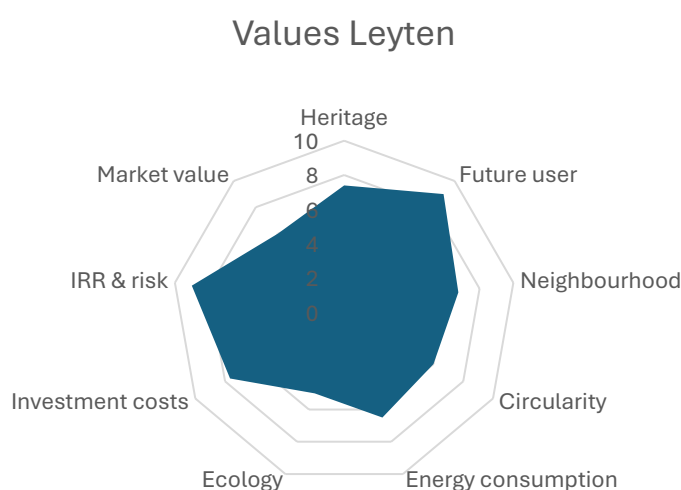


Figure 6: Spider diagram of the driving values of Leyten, with 10 being very strongly driven by and 1 not at all; Own work (2025)

Case 4

Hillside

Amsterdam



Photo Timon Kuiters, 2025

transformation	Offices into social housing
GFA	N.A.
housing units	233
size	23-48 m ² per house
party	B-Right
year	ongoing

4.5 Hillside

4.5.1 Case description

The development of hillside is a combination project of B-Right URBAN living. Where an existing office building was transformed into housing and a new apartment complex was realised. Hillside itself houses 233 apartments and facilitates parking via an elevator on top of the transformed office. It is situated in Amsterdam, near the hospital within an office neighbourhood that is slowly transforming into housing. Either by transformation or demolition and newly built.

B-Right URBAN living is a private company that specializes in micro living and provides affordable housing to all eligible target groups. They develop mostly for their own portfolio. They started off and still their main aim is the transformation of existing offices into housing even though they also started to do new developments nowadays.

4.5.2. Analyse

4.5.2.1 People

- Heritage

According to the participant there was no heritage value in this case due to the low age of the existing building. There was also no added value of its architectural state.

In other projects where there is a heritage 'like value, the participant mainly noted the possibilities of lower building regulation standards. This can benefit the building costs if implemented correctly.

- Future user

Accessibility of the building is selective as micro living is not way of living for everyone but B-Right does get mostly positive feedback from their own tenants. And due to the sheer diversity of tenants, it can also be said that they are easily accessible for everyone. This value is very much present as to attract as broad of a group to rent an apartment, thus mitigating the risk of vacancy. Although with the current housing crisis this is not really a risk.

Affordability was clearly mentioned as a value. To provide housing in otherwise too expensive locations is one of the goals. To make these possible decisions within the design have to be made. By making the housing small, in this case with an average of 27 square meters per apartment, building costs can be kept low. It gives people a possibility to live independently and nearby their work and/or study. Hillside is also good connected to public transport, the highway and to the hospital. Other facilities are located a bit further away as the neighbourhood is still mostly an office district, but this may change in the future.

The use-value of the complex is a bit more complex to determine. On one hand the participant mentioned the good reviews of their tenants. On the other due the tenants also do usually not stay longer than 6 months. So, it is very useful for these specific target groups that need affordable housing for a relatively short amount of time near a location that is usually too expensive.

- Neighbourhood

There was no specified target group for this development as B-Right URBAN living specifies in affordable micro living only certain groups can be tended to. These are mainly one person households, usually with a short stay. Expats, starters and international students make the bulk of the tenants. But also, a number is reserved for *statushouders* (immigrants with a (temporary) permit to stay in the Netherlands). B-Right actively intervenes in selecting the tenants when the internal social cohesion is too bad.

As the project is standing within an office district, lacking any functions that facilitate community building like churches or pubs etc. (Pacheco et al., 2022). this was not mentioned as a value of this project.

Connectiveness within the building was mentioned. It is seen as value and B-Right does make investments to create a save and open environment with the building. They have hired someone to keep an eye on the building and to be someone people can turn to when confronted with something hillside related. There are also shared facilities within the building like a laundry room. But due to short stay of the tenant's social cohesion is fairly low and is also depended on the type of tenant. Students work usually better to keep social cohesion while expats are usually less inclined to search for connectiveness within the complex. Because of this B-Right reduced its focus on expats and made room for other types of tenants. In other projects where the target group differs their social management has a bigger impact.

An interesting thing to note is the housing crisis within this domain of people. The participant had an illustrative quote that underlines the sheer need of housing and how it lowers the need to focus of the social aspect of housing.

"and the housing need is that big that the product that we have, that it has no vacancy. So also, not in a situation where such an apartment complex lies within an office district. That is poignant"

-Participant B-Right

4.5.2.2 Planet

- Circularity

The office that was being transformed was stripped to its load bearing structure which was used as the basis for the new housing. Regarding circularity this project lied mainly with the contractor on the re-use of the construction waste. The participant recognised the value of circularity as a value that is becoming more and more important, especially within the last few years. With more recent projects of B-Right it is a bigger topic.

CO2 usage wasn't mentioned but the participants did mention how the project will be an all-electric complex with no natural gas usage.

- Energy consumption

The transition to renewable energy was part of this project. The complex is connected to a heating network of which the participant questions on how environmentally friendly it actually is.

For the energy consumption the building has the energy label A (+). It was also built to get that label as to make the product more marketable and helps with financing the project. But once in discussing about the energy usage the participant was adamant that the energy label is unfair. As housing that is larger also uses more energy and is per definition less sustainable while they do get the same financial benefits from the label.

- Ecological

Ecological value was not really mentioned within the interview apart from catching rainwater. Which is regulated by the municipality of Amsterdam.

4.5.2.3 Profit

- Investment costs

Interesting is that the ground costs were not mentioned within the interview. This either means the participant thought there was no big difference between ground costs or that it came not to his mind when discussing the investments costs.

The big difference is with the building costs. As B-Right develops mostly transformations project this participant was adamant that the building cost are either comparable or higher than newly build. This may also have to do with the product they are making as smaller housing units are relatively high per square meter floorspace. The reason to transform buildings is not purely a financial consideration, but also a sustainability one. But when asked why this project was decided to be an be a transformation project instead of demolition and newly built the participant did not know an answer. The decision was made and that is what is what you stick with.

Specific building costs related aspects of this case were the parking lot, the noise- cancelling windows and the laundry room. The parking lot was a requirement from the municipality to also add the newly built complex beside it. This was fairly expensive as it needed to be placed on top of the transformed building with an elevator for cars. The infuriating side of this expense is that usually their tenants do not drive cars. So, the expensive parking lot stands mostly empty. Another thing is the need for noise-cancelling windows. These are an expensive design solution to make it possible to air the apartment without the noise from outside. Here it is again the municipality of Amsterdam that made this decision. The laundry room is an example on lowering the building costs using the concept of co-living. By creating one area for washing, B-Right did not need create one for every single apartment.

Regarding the age of the building. Usually B-Right sees transformation as a possibility when developing new housing as the rules and regulations are less strict. But they also see it as possible risk if the revision drawing is not reliable.

- IRR & risk

IRR is not often used due to the changing rules and regulations according to the participant. It would not give an accurate image of future cash flow. The participant mentioned the yearly indexing of the cash flow but also the yearly changes in the *WWS puntentelling*. This is a framework in which rental homes within the social sector are valued and based on the score the maximum rent is set.

In this case there was no IRR calculation of the project and the investment cost and the gross initial yield are mainly used to determine feasibility of the project in combination with the consent of the shareholders in the project. IRR is sometimes calculated for multiple projects at once but to give more of an image on how they are working on the whole.

Financing of the project is kept short term as to prevent that interest on the project is kept to a minimum. To achieve this B-Right works with other investors and sometimes sells existing stock to finance new developments. Although that last option is not the preferred option as the main business case of the company is the exploitation of the realised projects.

Risks that were affiliated with transformations were barely mentioned. The main risk the participant noted was that developers that expect lower building costs will eventually get an unfeasible project due to too optimistic expectations. Further risks due to either complexity or age of the building were not really mentioned and less strict rules and regulation make it often more of an opportunity to transform.

- Market values

The market value of the existing building was not mentioned in this interview. Which is to be expected as the ground costs were also not discussed.

The market value of the case was very briefly mentioned. And it was mainly depended on its location. As Amsterdam is one of the most affected municipalities of the housing crisis market values are high.

As mentioned before, some of the stock of B-Right is used for financing new developments. Therefore, it can be concluded that the market value definitely is an important value even though it was not mentioned within the interview.

4.5.3 Summary case Hillside

In the case of Hillside there are some clear values that are important for the realisation of it as can be seen in figure 7. These are the future user, energy consumption and the IRR & risk. While the values that score low in importance to B-right are heritage, neighbourhood and ecology.

The spider diagram is weighted mostly into the direction of the domain of profit. As IRR & risk as one of the highest scoring values and both market value and investment costs scoring above the average. Interesting in this case is that there is no clear hierarchy of the profit values and that the even though the IRR & risk scored high, the indicator of IRR was mentioned as unimportant. This has to do with the ever changing regulations with regards to social housing. Therefore the IRR cannot give a realistic picture of future yield. Regardless the business case is important as the investors need to be pleased.

The future user scores also high due to the fact that participants strongly underlines that these type of housing provide more and affordable housing on desired locations stating the indicators of affordability and accessibility as motivation to build these kind of transformations.

Energy consumption scored high both because the case itself had a high energy label but also the fact that the participant was adamant that small housing uses less energy and should therefore be considered more sustainable.

The lower scoring values of heritage and ecology. have a very similar result and underlying reasoning as in the case of the Eerste Helmerstraat and Zoetelaarspassage. Heritage, even though not a part of this case, is avoided in new transformations as to prevent increased investment costs, mainly the building costs. Ecology was also missing a practical application in this case. While the neighbourhood value scored low due to the placement of Hillside inside an office district and short stay of the tenants within the building (average of six months).

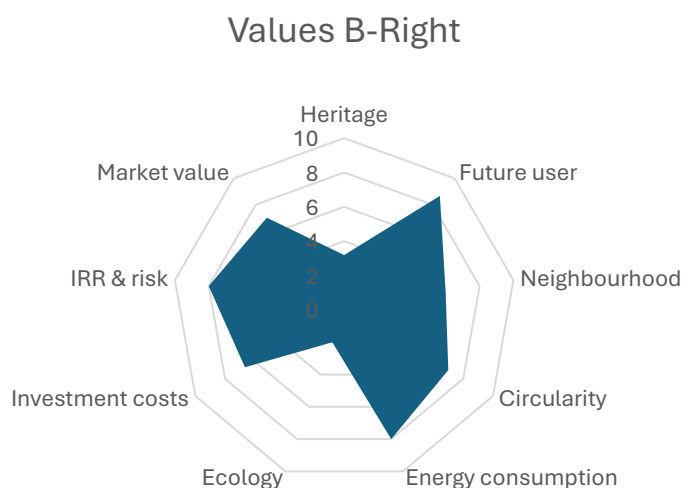


Figure 7: Spider diagram of the driving values of B-right, with 10 being very strongly driven by and 1 not at all; Own work (2025)

Cross case *analysis*



5

5. Cross case analysis

In the following chapter the findings of the analysis will be compared to each other for further findings to see what the differences are and if some underlying structure is visible. This will be done by first describing each case and then using the values of theoretical framework to go through each of the cases. Highlighting where they overlap, miss and conflict with the theoretical framework. This is to address RQ 4 and thus give a basis to implement the paradox perspective on the expert panel.

To make these insights visible, the qualitative data of the analyse is quantified. This quantification of the data is done with the use of applying values to the mentions of the indicators within the interviews. With a value of 2 given to not mentioned at all, a value of 4 to mentioned but not as a value, a value of 6 to mentioned as somewhat as a value a value of 8 to mentioned as a value and a value of 10 given to strongly mentioned as a value. The reason behind not having as lowest value zero is that there is a possibility that the indicator just did not come up during the interview, while it may still be a value of the party in question.

This method of quantifying the data does make the findings less reliable as both the bias of the interviewee and the researcher will affect the data. This will be combated in the next chapter wherein the findings of this chapter will be tested with the use of an expert panel.

The data will be cross analysed as follows. First an overview is given of the indicators mentioned in the interviews. This shows which indicators were often missing in the interviews. Following this are the indicators and values that came up from the transcripts of the interviews that were not part of the theoretical framework from chapter 3. This should answer the part of RQ 4 regarding the missing values. These will both be shortly discussed before continuing onto comparing the different parties. First the non-profit parties will be compared to each other. Then the for-profit parties with each other and lastly the for profit and non-profit findings will be compared with each other. This should give insight over the other part of RQ 4 regarding the overlapping and conflicting values. Resulting in some preliminary conclusions that will be tested by the expert panel.

Value Indicator		People											
		Heritage	Future User				Neighbourhood						
Case	Party		Social	Historic	Scientific	Aesthetic	Accessibility	Affordability	Use-value		Diversity	Community	Supportiveness
Eerste Helmerstraat	Rochdale												
Zoetelaars passage	DAO*												
District U	Leyten SFNR**												
Hillside	B-Right												
Value Indicator		Planet											
		Circularity	Energy consumption				Ecological						
Case	Party		Waste creation	CO2 Production		Energy usage	Energy transistion		Use values		Non use values		
Eerste Helmerstraat	Rochdale												
Zoetelaars passage	DAO*												
District U	Leyten SFNR**												
Hillside	B-Right												
Value Indicator		Profit											
		Investment costs	IRR & risk				Market values						
Case	Party		building costs	ground costs		IRR	Risk		LTV		Market value		
Eerste Helmerstraat	Rochdale												
Zoetelaars passage	DAO*												
District U	Leyten SFNR**												
Hillside	B-Right												

*De Alliantie Ontwikkeling
** Studio for new realities

value/indicator mentioned in the case
value/indicator mentioned by the company
not mentioned

Table 4: Table showing which indicators were mentioned in the interviews with which parties; own work 2025

5.1 Missing values

In this part the missing values of the analysis are discussed. The missing values are important to locate possible blind spots to use the paradox perspective on in the following expert panel, as to contrast them with the values that scored high in the case studies. None of the values were missing from the interviews, due to fact that questions were linked to the theoretical framework, only the missing indicators of the interviews will be discussed. These will be visualised within table 4 and the results will be discussed. Following this is a paragraph that will discuss the missing indicators and values that are not part of the theoretical framework but that came up during the interviews.

5.1.1 missing indicators within the interviews

In the table (4) above the missing indicators are visualised. First in the case and if it is no part of the case but is mentioned as a standard part of value assessment by the correlating party then it is also checked as being mentioned. This does not give the most accurate image, as sometimes some indicators just did not come up during the interview due to the nature of the project and the limited time of the interview. The table only shows which values and indicators that are in the

theoretical framework are either completely missing or only situationally present. The most interesting values with their correlating indicators are: heritage, circularity, ecology and market value due to their overall low score in the case analysis.

5.1.1.1 Indicators of heritage

Heritage is according to the analysis very much depended on the case. As not every building is seen as having any heritage value as in the case of Zoetelaarspassage and Hillside. Furthermore even in the cases where it is presents often many of the indicators in the theoretical framework are missing.

The historic and aesthetic indicators are most often mentioned. Both because of their marketability but also of their cultural significance. As awareness of the heritage makes people more appreciate it (Nyaupane & Timothy, 2009). While the scientific and social indicators were almost never mentioned. While the lack of the scientific value can be understood as most of the time archaeology in the Netherlands is seen as something underground. Illustrated by the fact that archaeology and landscape are strongly correlated in the Netherlands (Rensink et al, 2015). In the case of transformations usually no ground work is needed, thus no archaeological sites.

That the indicator of social is missing is the most surprising. Since this is not strictly bound to the age of the building and can be applicable to every building. Especially functions that facilitate community building e.g. schools (Pacheco et al., 2022). And can lead to unforeseen consequences when ignored as attachment to the building by local residents can lead to resistance.

5.1.1.2 Indicators of circularity

Circularity is seen as a new value and participants often mention that there is a lot of development within this value going on. The value is growing in importance as mentioned in the case of the Zoetelaarspassage (2018) where it was still not a part of the value assessment.

The indicator of waste creation was often mentioned and seen as one of the fields most advancements were made, even if mostly spearheaded by demolition companies and contractors, it has become standard policy when assessing contractors. But surprisingly CO2 production was almost never mentioned even though sustainability policies like MPG calculations are part of standard practise (Rijksdienst voor Ondernemend Nederland, 2025).

5.1.1.3 Indicators of ecology

Ecology is often not the case as most transformation projects take place within the urban fabric. Because of that both indicators the use and non-use value are not being mentioned. This was not expected. For example for combating overheating ,green roofs and façades are often mentioned as a solution which are a typical example of the indicator use value. While the non-use value would have been a part of the nitrogen emission crisis in the Netherlands. But apparently since the transformations are often outside of the range of nature reserves it rarely happens that the construction transformations is obstructed by the nitrogen crisis.

5.1.1.4 Indicators of market value

The market value was often on the low end of the valuation. This mostly had to do with the fact that the loan to value indicator was barely mentioned. A possible reason can be that since the participants are mostly connected to developing new projects and thus do not think of the LTV. While a participant that is more involved on the scale of the portfolio like an asset manager would be.

5.1.2 the missing values of the theoretical framework

There are also values and indicators that are not part of the theoretical framework. The indicators are time for the investment costs, the added use value of heritage and image.

5.1.2.1 added value heritage

The added use value of heritage was clearly mentioned in the cases that were transforming heritage. This will be defined in this thesis as: use value that is only present because it is inherited from the existing building. And therefore that the developer is motivated by this to transform a building instead of demolishing it.

5.1.2.2 Time

Time was mentioned in a few cases and most strongly within the case of the Zoetelaarspassage as mentioned above in the analysis. Time as value mostly has to do with the efficiency of time. It was mentioned as a driving value as delays are often costly and both non and for-profit parties mentioned the time in context to accessibility of housing. Time as driving values will be defined as it is within the project management triangle (iron triangle) as the duration of the project and the motivation to keep the duration of the project as short as possible.

5.1.2.3 Image

Image was often indirectly mentioned. Mainly visible through the mention of keeping promises with the municipality and building trust with the municipality. This was more often a value of the housing associations; the reason lies maybe by that a lot of for-profit have a bias against them as the participant of B-Right noted:

“That image that we are the geldwolven (money grubbers) and those housing associations the geitenwollensokkenbreiers (soft hearted folk). I think we won’t get rid of that, I am afraid.” - Participant B-Right, Dutch words are included as well to keep the original intonation of the words.

For this thesis the image value will be defined as follows: The driving motivation to improve one’s reputation with the use of the development.

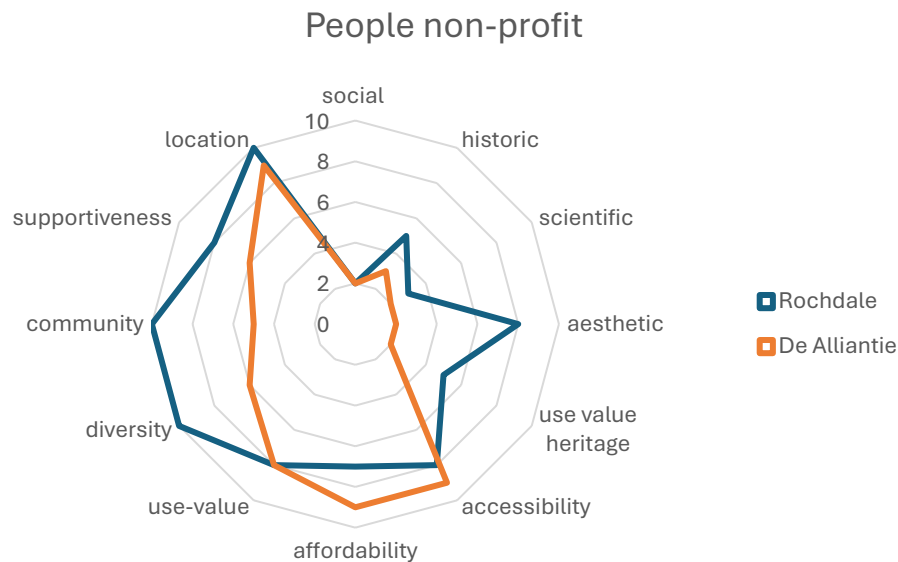
5.1.2.4 Location

The location of the transformation was also strongly mentioned by the nonprofit parties as an added value of transformation projects. The possibility to add housing within an existing neighbourhood is seen as a possibility to diversify and strengthen the neighbourhood. The value of the location will be defined by this thesis as willingness to develop transformations because of the location. The reasoning why the location is considered valuable is depended on the developer in question and is outside the scope of this thesis.

5.2 Case analysis non-profit

In the following part the non-profit parties will be compared to each other. First on the indicators of the three P's and later one comparing all the values of the 3P-framework of this thesis and with the added values and indicators that were found in the analysis.

5.2.1 People



Figures 8: Spider diagram of the indicators of the values of People, of both Rochdale and de Alliantie Ontwikkeling. Results based on interviews; own work, 2025

In the figure (8) above the indicators have been given values. The indicators are related to a specific value within the theoretical framework. For heritage the indicators are: social, historic, scientific, aesthetic and use value heritage. The latter one is an added indicator that came up during the interviews. For the future user the indicators are: accessibility, affordability and use value. Here there is no modification of the theoretical framework. Lastly for the value of the neighbourhood the indicators are: diversity, community, supportiveness and location. The indicator location is added to the theoretical framework as it was also mentioned in the interviews.

Heritage

Both parties do not value heritage highly. Only the historic value and the aesthetic value of are regarded as somewhat of a value by Rochdale. While at de Alliantie Ontwikkeling only the historic value as mentioned once. From the analysis it also becomes clear why their valuation of heritage is so low. It is due to the strict rules and regulations, that increase the building costs, the realisation time and make it hard to properly insulate the building. For these reasons de Alliantie Ontwikkeling actively does not choose to transform heritage and instead relies on offices to transform. Both parties also mention the wishes of the municipality as the main reason to still do heritage but due to strict rules and regulations they would rather not.

Future user

Both parties do value the future user highly when realising new development. Especially the accessibility indicator was often mentioned in light of the housing crisis within the Netherlands. It seems that de Alliantie Ontwikkeling values the future user slightly higher.

Neighbourhood

The value of the neighbourhood is more strongly present at Rochdale than at de Alliantie Ontwikkeling. The reason behind this is probably that at de Alliantie the housing association and the developing branch are separate entities while at Rochdale there is no separate company that does the development. Interestingly, even so both score high for the indicator of location. The location was also mentioned by both parties to be the main reason to transform existing buildings into housing. As it would allow them to intervene within either neighbourhood where there is still no social housing present. As is the case with the Eerste Helmerstraat. But also, to add a more housing without having to displace existing residents. Two other indicators are also part of this. This is the wish to diversify the make-up of the neighbourhood, without displacement and to provide new housing accessibility.

5.2.2 Planet

The

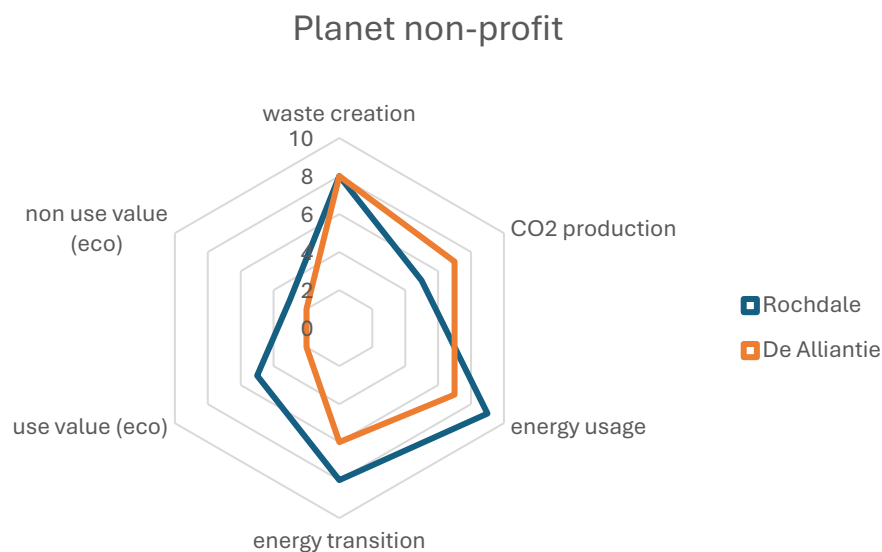


Figure 9: spider diagrams of the indicators regarding the values under the domain of planet by the non-profit parties Rochdale and de Alliantie Ontwikkeling; own work, 2025

indicators of planet are not adjusted to the findings of the analysis. For circularity the indicators are waste creation and CO2 production. For energy consumption the indicators are energy usage and energy transition. For the ecological value the indicators are the use- and non-use value of the ecology. They are visualised in figure 9.

Circularity

Circularity is seen by both parties as one of the main reasons of why transformation projects are important. Furthermore, they see a recent increase in importance of reducing waste and doing more with circular demolition. Even so, to both parties the CO₂ production is fairly low. This is most probably the result of the nature of transformation projects. As transformation projects are sustainable enough on their own and it is not further mentioned why it is sustainable.

Energy consumption

As seen in figure 9 Rochdale lies a bigger importance on the energy consumption of the realised product. This difference is in the different approaches towards energy consumption. While for de Alliantie Ontwikkeling affordability is more important than sustainability (at least that is what one participant noted as seen in the analysis) and energy mostly a thing is wherefor there are set regulations and labels to adhere to. For Rochdale the focus shifts to not focus solely on the energy labels but more towards a desired amount of energy usage by the future user.

Regarding the energy transition the difference is mostly in the timeframe of the case. The case of the Zoetelaarspassage is from 2018, a time wherein it was less common to construct housing that is not connected to natural gas.

Ecology

Both parties do not really mention ecology as a value. This has a few reasons. First and foremost, both cases were cases where it was not really possible to add greenery. In the case of the Zoetelaarspassage ecology was added when they added a green roof together with the new floor on top. Another reason that ecology is not really mentioned is the scale and location of the project. Both projects are within the city and offer little space to add greenery. In the case of the eerste Helmerstraat played also heritage a role in even taking the possibility to add greenery away. The non-use values did not play a role for the same reason as there is for transformation projects often no link to nature as they are usually situated within the urban fabric.

5.2.3 Profit

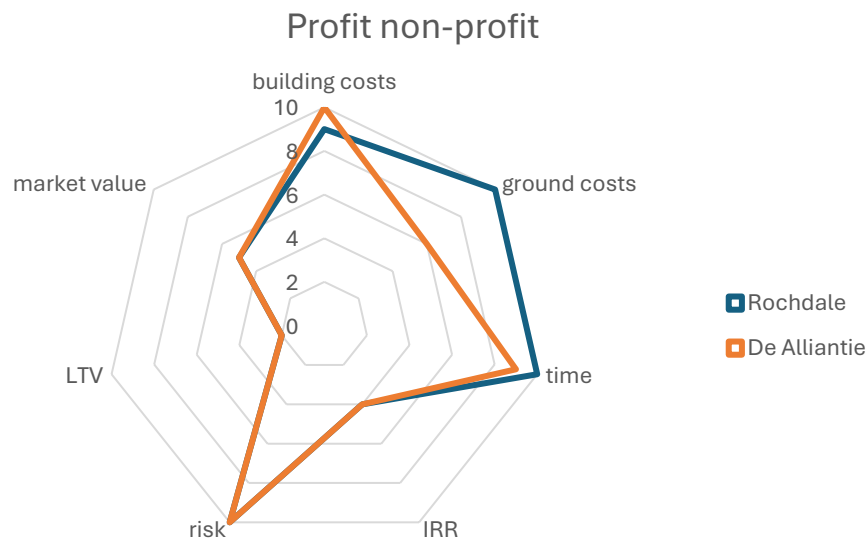


Figure 10: spider diagrams of the indicators regarding the values under the domain of profit by the non-profit parties Rochdale and de Alliantie Ontwikkeling; own work, 2025

The indicators of the domain profit are adjusted; the indicator time is added to the spider diagram. For the investments costs the indicators are building costs, ground costs and time. For the IRR & risks the indicators are IRR and risk. For the market value the indicators are the LTV and market value. They are visualised in figure 10.

Investment costs

Both parties find the investment costs the most important part of the profit domain. This has most likely to do with the participants being part of the developing side of the business. As became clear in the interviews on the development side people are mostly interested in the costs and less so about the potential cashflow or marketability of the project as will become clearer further on.

Building costs are seen as very important by both parties. The reason being that the building costs are seen as a risk if not managed and controlled. Both parties think the building costs of transformations are generally either comparable or higher than newly build. And usually not seen as a reason for transforming instead of newly built.

Ground costs or procurement cost as they were often called in the interviews are seen by both parties as important. The reason for the lower value for ground costs of de Alliantie Ontwikkeling is that one participant did not mention it while the other mentioned it very strongly.

Time is seen by both as important. But due to the difference in cases based on different grounds. The case of the Eerste Helmerstraat faced great delays that made the project unfeasible. While de Alliantie Ontwikkeling mentioned the possibility of time efficiency of transformation projects. As construction time may be shorter and preparation time can be done while the building is still used for its original function.

IRR is not seen as an important part. This has mostly to do with that the rent is either predetermined and/or the task of the asset manager and not of the developer. More often as discussed in the analysis the gross initial yield is used to determine the feasibility of a project.

Risk management is seen as important by both parties as risk management can mitigate risks. Risk related findings are mentioned in the analysis.

Loan to value (LTV) was not mentioned by either party. Most probably as the participants were not asset managers and this is not part of their field.

Market value was mentioned. Though not very strongly by both parties. The market value is not a driving factor for transformation projects.

5.2.4 Driving values

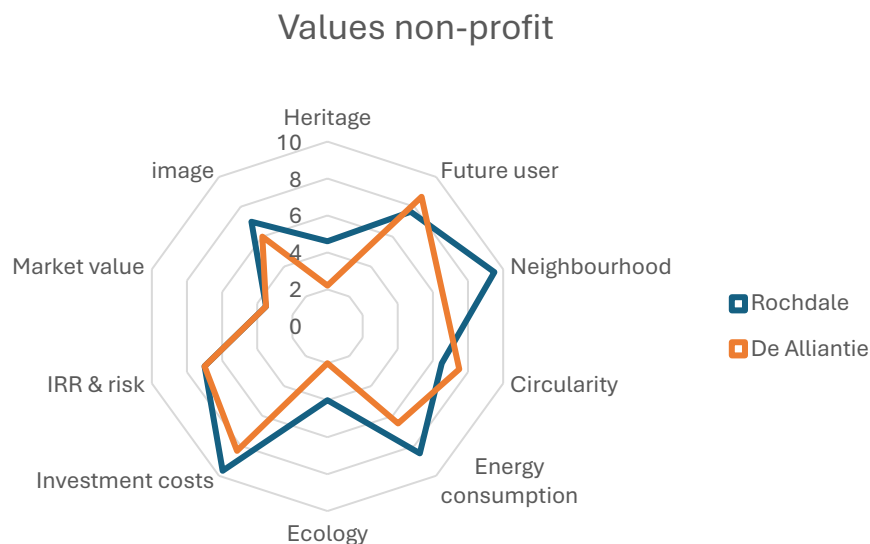


Figure 11: spider diagrams on the importance of values of Rochdale and de Alliantie Ontwikkeling based on the interviews; own work, 2025

Concludingly all the values of the theoretical framework (see figure 11) with the added value of image as was discussed in the analysis. Even though there are differences noticeable on the whole the parties have more values in common than not. The spider diagram makes a kind of butterfly with two big wings on either side and pointing strongly to each of the corners of the diagram.

It is easily visible that the market values, ecological values and heritage are not seen as important. While the future user, neighbourhood, energy consumption, investment costs, IRR & risk and image are more strongly present in the interviews.

Both of the parties mentioned at least somewhat image as a value even though the interview questions did not ask towards it. Image was also solely mentioned in relation to the municipality by both parties.

5.3 Cross case analysis for profit

In the following part the for-profit parties will be compared to each other. First on the indicators of the three P's and later one comparing all the values of the 3P-framework of this thesis and with the added values and indicators that were found in the analysis. The architect of the case of District U is not included in this comparison as too often values within the theoretical framework were not mentioned. E.g. for the domain of profit only the indicators building costs and risk were mentioned. The architect will therefore be compared on its own in relation to the developers when the architect deviates from the consensus of the developers.

5.3.1 People

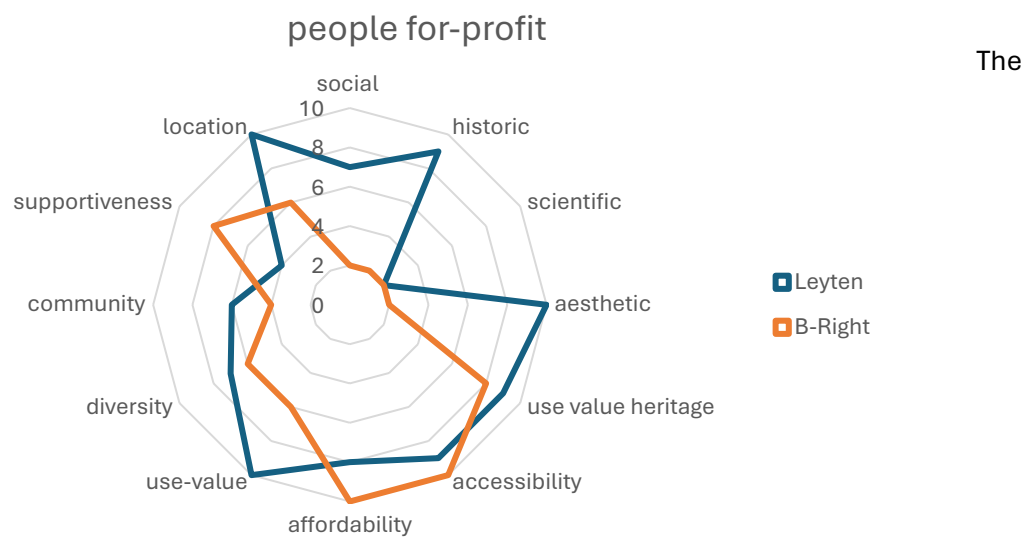


Figure 12: spider diagrams of the indicators regarding the values under the domain of people by the for-profit parties Leyten and B-Right; own work, 2025

indicators are the same as the non-profit group for comparability. It is clear that the values of both parties vary wildly. Though both are also very heavily future user focused.

Heritage

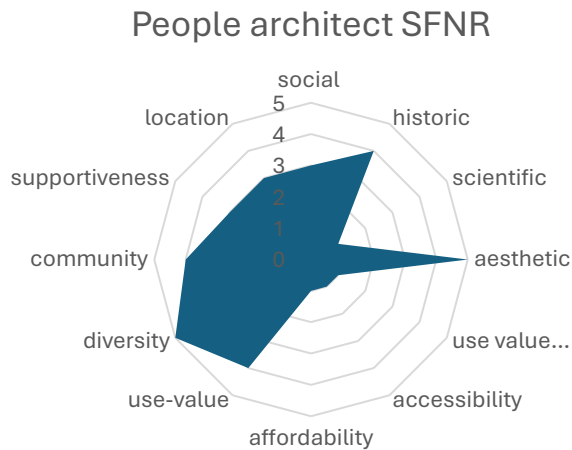
Leyten finds heritage an important value. Heritage give character to the project, makes the project beautiful and adds use value to the housing. While the participant may agree with the latter, mostly because it is possible that the regulations are less strict. The participant does not see any added value because a project is heritage. As heritage is usually a monument and monuments have strict regulations.

Future user

Both parties find the future user the most important part within the domain of people. Where B-right has more the focus on accessibility and Leyten more its focus on the use value of the product.

Neighbourhood

Interesting to see is that the neighbourhood is not so much of a concern for both parties. B-Right is involved with the social cohesion within their stock but it is limited as discussed in the analysis. Both parties at least find location somewhat of a value, but this has more to do with the



marketability of the location than with the social fabric of the place. Diversity is mostly the product of diversifying the portfolio. As is the case with the focus of the architect. Which was mostly relegated to what was designed. And how these ideas would benefit the future user and or neighbourhood.

Figure 13: spider diagram of the indicators regarding the values under the domain of people by the architect of Studio of New Realities; own work, 2025

5.3.2 Planet

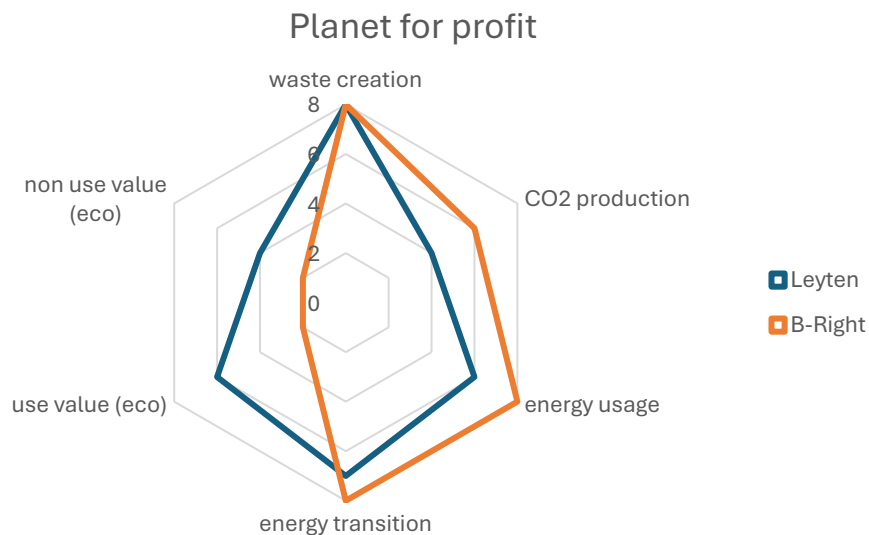


Figure 14: spider diagrams of the indicators regarding the values under the domain of planet by the for-profit parties Leyten and B-Right; own work, 2025

Comparing the two main parties on the value framework of the theory (see figure 14). The main difference between the two parties is the ecological value. While this was not a topic by B-Right, at Leyten at least some value was given to it. The main reason for this also lies in the case. District U is an area redevelopment, therefore at least some measure of ecological interventions are to be expected. Both parties mentioned how being sustainable helped with the financing of their projects. So there is also an underlying profit value within the planet domain.

Regarding energy usage the participant of B-Right was adamant about how smaller housing is also more energy efficient and therefore should be regarded as more sustainable.

The architects spider diagram is very much like the one from Leyten and because comparing them would not give any new insights is not included in this part.

5.3.3 Profit

In
15,
is

figure
what

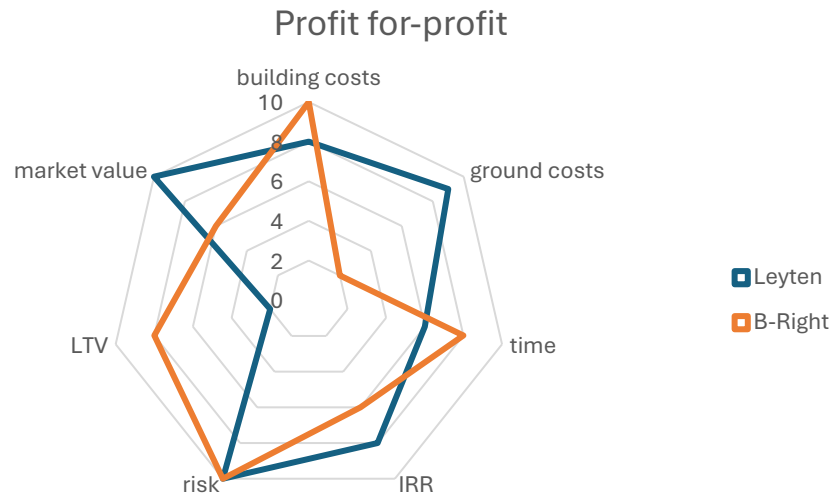


Figure 15: spider diagrams of the indicators regarding the values under the domain of profit by the for-profit parties Leyten and B-Right; own work, 2025

mainly visible are the subjects not mentioned. In the case of B-Right the ground costs and market value and in the case of Leyten time and the LTV. Apart from that there are some interesting findings in comparing the two.

IRR and the market value or as Leyten called it the marketability score very high while for B-Right IRR is not seen as very important. Sure the cashflow is important but setting an IRR is unreliable. The reason may lie in the different products the parties make. Leyten develops mostly mid segment housing of an average size while B-Right creates social housing within small housing. The product of B-Right is more volatile as it reacts to changes within rules and regulations. Which according to the participant happen quite often.

Even though both parties value the building costs. They have conflicting views on the building costs regarding transformation projects. According to B-Right transformation is almost always more expensive while Leyten is very adamant that transformation is cheaper than newly built and by quite some margin even. The reason for this difference is hard to determine. Possible reason may be that Leyten only transforms buildings that are easy to transform, while B-Right has more complex buildings within the urban fabric where it is harder to construct.

Another interesting note is that B-Right is the only party to mention LTV. This may also have to do with how the B-Right is more integrated with more relation to asset management while the other parties are more or solely focussed on development.

As mentioned before the architect of Studio for New Realities only mentioned two indicators. Therefore his spider diagram will not be shown. Nevertheless the indicators that he did mention relate to construction. The building costs and risk management, with the risks going about risks within construction.

5.3.4 Values

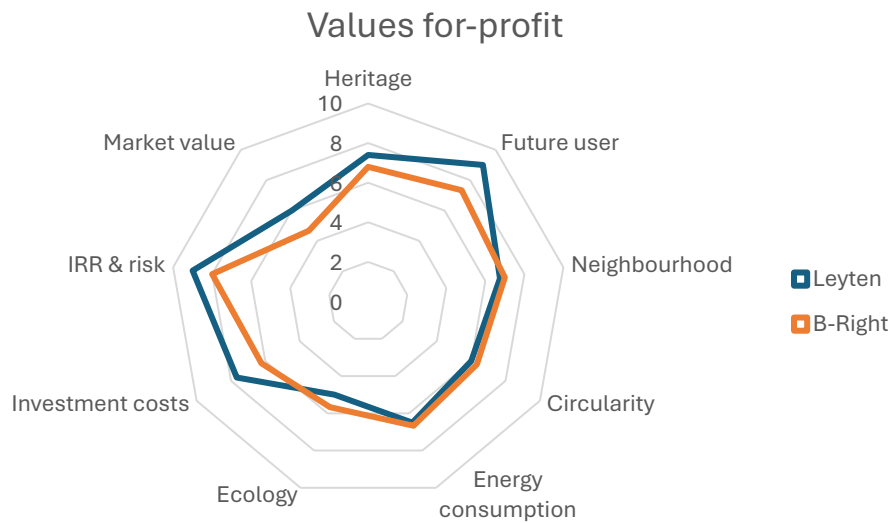


Figure 16: spider diagrams on the importance of values of Leyten and B-Right based on the interviews; own work, 2025

When looking at the values as a whole in within the figure (16) above, it becomes clear that B-Right makes clear choices in which values to pursue while Leyten looks at almost everything. This difference may partially be based on the difference in the cases. It seems fairly logical that in an area redevelopment more aspects surface during design and construction than when only transforming a single building.

Image is comes up as a value for Leyten while not for B-Right. The reason for the low score of B-Right was already mentioned in the analysis. According to the participant of B-Right there seems to be a bias against for-profit developers. For Leyten image was clearly present in their interviews. They are trying to please both the people and the municipality of Vlaardingen. The difference may again lie in the difference in their product. As the B-Right participant mentioned:

“We often get criticism and especially from the authorities and housing associations that our houses are too small or that they demand minimal metrages.” -Participant B-Right

So it may also be the product that influences the image.

5.4 Comparing non-profit & for-profit

In the following part the values of both the non-profit parties and those of the for profit parties will be compared to each other. First the values will be compared and following that the P3 will be compared.

5.4.1 Driving values non-profit vs. for profit

The

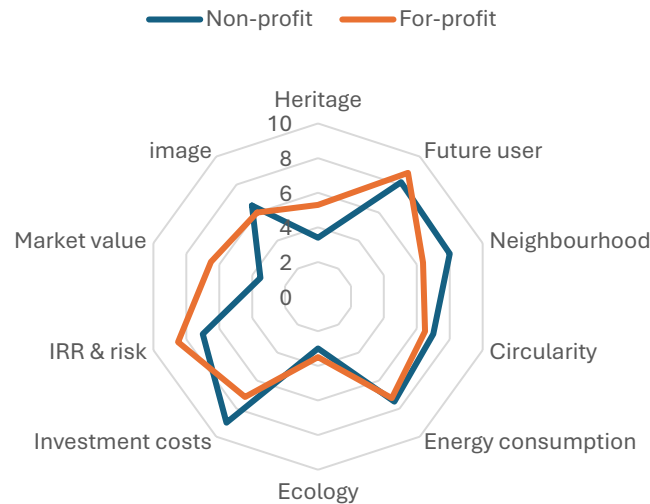


Figure 17: spider diagrams on the importance of values of non-profit and for profit based on the interviews; own work, 2025

values of the non-profit and the for profit are comparable for the most part as can be seen in figure 17 & 18. Especially regarding the domain of planet is no significant disparity visible. For the domain of the people there is also more overlap than conflict. The biggest disparity therein lies in the value of the neighbourhood. Wherein the value of the neighbourhood for the for the non-profit is clearly higher and the reasoning behind it is also more people driven.

The biggest change is visible in the profit domain. Wherein the focus on the revenues for the for profit is visibly higher than for the non-profit parties. This was to be expected. Especially because the participant of B-Right said:

“The solution of commercial developers is to develop affordable housing that must built less meters, that is what it costs. (...) and I think [housing] associations have missed the mark in the past” -Participant B-Right

The value of image is slightly higher for the non-profit organisations. But the difference is not remarkable. But the difference lies mostly in that both non-profit mentioned it positively and that one of the for profit parties mentioned it negatively.

These valuations are also visible if they are simplified even further into just the three domains of people planet and profit (figure 18). As seen in the spider diagrams below. Interesting to see is that in that case the for profit parties also score higher within the domain people. Though is mostly due to the heritage value. Which had mostly a higher value at District U/Leyten because there were no strict rules or regulations. While this is usually the case and the main reason why the other parties do not prefer heritage.

3P comparison

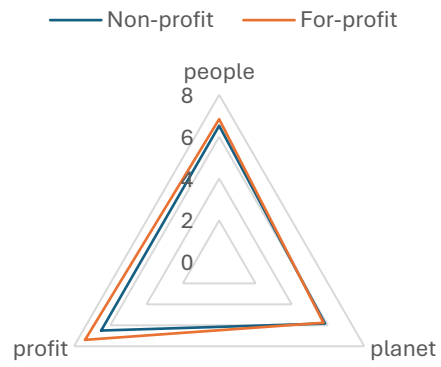


Figure 18: 3P spider diagrams for both the non-profit and the for profit parties; Own work, 2025

Findings expert panel



6

6. Findings expert panel

For the expert panel the findings of the cross case analysis were used. These findings were written as statements and presented and clarified with the use of a list of definitions and a presentation. These statements were discussed between the participants. Both from an independent point of view and from a non-profit point of view. Not all findings of the cross case analysis were used for the expert panel due to time restrictions and the choice was mainly based on the notability of the finding and are created to create conflict with other values to implement the paradox perspective within the discussion.

6.1 Location

During the cross case analysis the value of location was often mentioned by the participants of the interviews. Sometimes even mentioned as the deciding value to transform the building. Underlying reason given by the participants were the market value of the location by the for profit side, the possibility to intervene in (new) neighbourhoods by the non-profit side and providing housing on desired locations to new locations by both. As such the following statement was put forward to the expert panel:

- The location is the most important reason for housing associations to develop transformations.

This statement was widely rejected by the expert panel. Mostly because the location is often more seen as a condition rather than a driving value. Although there was definitely a mention of the location being an driving value, as the location can be a way to improve the neighbourhood. Furthermore two participants from both the non-profit and the independent consultant side noted that transformations are a tool to provide housing and it should be seen as such that transformations on their own are not the motivation but the underlying motivation is to provide affordable housing.

6.2 Heritage

In the cross case analysis heritage was consistently valued lower than the other values within the domain of people. The reoccurring reason given in the interviews were the strict rules and regulations given to monumental buildings. In addition in the case of district U where heritage was seen as a driving value of the development, it was stated that the buildings were not regulated by regulations given to monumental buildings. Because of this it seemed like the value of heritage was solely depended upon the surrounding rules and regulations. As such the following statement was put forward to the expert panel:

- Heritage is only valued without strict rules and regulations.

In this statement all participants were overall agreeing with the statement. The reasoning being that heritage is becoming too costly in comparison to other transformations and that the transformations of offices are therefore preferred. As buildings with heritage often have monumental status and have very strict rules and regulations that make the redevelopment of these buildings expensive. Building upon that transformations are a tool to create new housing, heritage is not on the priority list of housing associations. Furthermore one of the participants from the housing associations mentions that in the case of heritage that the municipality is asking more than is needed, making another barrier to redevelop heritage.

The independent consultants added two other aspects to the statement. First and foremost heritage is not only more costly in terms of building costs. It is also less efficient in its usage of floorspace. The ratio between usable and gross floor area is almost always worse than in the case of newly build. Illustrating this with a case of their own wherein right beside the transformed building a newly built apartment complex with twice the volume of the transformed part was needed to make the project feasible. The other aspect that was added is the difference between already owned buildings with monumental status within the stock of the housing association and yet to be acquired buildings with monumental status.

6.3 Ecology

Within the cross case analysis the ecology value was low both with the for- and non-profit parties. This is also due to the fact that the ecology value could not really be implemented within most of these projects. On the other side because it was barely mentioned as a value it also could imply a lack thereof. As such it was put up for debate with the following statement:

- Ecology is not seen as a value by the housing associations.

The participants strongly disagreed with this statement. With one of the independent consultants stating that there is a noticeable shift from housing associations to include more sustainable aspects like ecology and circularity within their investments. And this participants also notes that it seems to be an internal motivation from within the housing association to include it more. But the participant also acknowledges that the implementation of these ambitions are under pressure due to the affiliated financial costs. This sentiment was also shared by the participants of the housing association. One noting that in their pursuit that their housing association have made notable steps into making circularity and ecology a standard part of their developments even though the financial pressure is high. Implementing ecology is indeed raising the building costs but it is a cost the housing associations are willing to make.

6.4 Sustainability

Within the interviews it was repeated by several participants from both non- and for-profit parties that when transforming a building the development is already sustainable. Giving the impression that transformations were seen as sustainable on its own. Building upon this in the interviews there was one participant that stated the following statement: From a purely sustainability point of view, housing associations are not the best party to realise transformations. The participant stated this while the participant was not directly asked on the competence of housing associations regarding sustainability. Herein the term sustainability is about circularity, energy and ecology. Not for example about social sustainability. From this two statements were put forward to the participants one already mentioned and the following statement:

- Transformations are sustainable enough, further considerations regarding sustainability are not needed.

Interesting to note is that the independent consultant did not add to the discussion on this statement. The participants from the housing association disagreed with the statement to a certain extent. The transformations are seen by housing associations as sustainable endeavours but that does not mean that no further sustainability measures are implemented. Though because transformations are seen as expensive developments, it is often the case that there are some budget cuts for other sustainable implementations. Nonetheless because of the exploitation period of the building housing associations are willing to invest more when

developing a new project to cut down maintenance or renovation costs in the future. E.g. with already replacing the existing installations to prevent a large renovation in the near future because of it. Lastly housing associations have certain sustainability conditions, if these are not met the project is not deemed suitable for the housing association.

- From a purely sustainability point of view, housing associations are not the best party to realise transformations.

As stated previously this is a statement straight from the interviews. The participants all agreed with this statement. Restating that transformations are a tool and not a goal on their own. Because affordable housing is their main goal also sustainability does not have priority over that goal. An independent consultant further notes that housing associations can be used as political tool to achieve the sustainability goals of the government. As the government has the most influence directly on the housing associations by stating clear policy and providing capital to make it possible for housing association to transform more buildings. While the other independent consultant repeats the difference between own stock and yet to be acquired buildings. The participants disagree with the statement for the already owned stock of the housing association. As when the buildings are already in their possession it is in the participants opinion that housing associations are the best parties to realise them.

6.5 Small housing

During the interviews the participant from Hillside was adamant that there is a market for smaller housing and that housing associations were missing the boat by not creating more small housing. According to this participant it is the only way to create feasible affordable and plentiful housing on desirable locations. Furthermore smaller housing should also be more sustainable as smaller housing uses less energy. From this the following statement was presented to the expert panel:

- Housing associations need to make smaller housing ($\pm 30m^2$ usable area) when realising transformations.

Overall the participants agree that there is a trend of more smaller housing within new developments. That even the housing associations that are active in the Amsterdam have created apartments smaller than $30m^2$. That being said the participants noted a few objections to fully commit to only small housing. First and foremost is there the risk that small housing does not stay marketable over a longer period of time as there is a real possibility that the demand of such small housing may plummet while larger housing will keep their value. Furthermore apartment complexes with larger homes are easier to maintain. This is for two reasons, complexes with only studios usually have an abysmal social cohesion and active social management is needed and larger apartments are easier to renovate in the future.

More specifically on transformations there are several reasons why these redevelopments are usually done with only a limited amount of studio's. Investment costs are one reason, while the cost per studio may be lower, the cost per gross floor area (GFA) is higher. This combined with the already rising building costs of transformations makes it harder to justify. Adding to this, is the fact that it is easier to redesign a transformation project with larger housing. Thus making the participants question the validity that smaller housing is more feasible to begin with. Another reason is that for housing associations it often happens that a developer/entrepreneur/municipality comes to them and offers a transformation project. This project is then often already as much parcelled out as possible.

Lastly one of the independent consultants also questioned the claim that smaller housing is more sustainable because it would use less energy. The participant notes that maybe on housing level it may use less energy but that on building level it usage it is even greater.

6.6 Investment costs vs. market value & IRR

During the interviews and from the cross case analysis it became clear that the aspect within the profit domain that got the most attention were the investment costs. Occasionally participants also stated that other aspects like IRR were less important when deciding if a project would be realised. It therefore seems to give the picture that as long as the investment costs are favourable, the project would be feasible. As such the following statement was presented to the expert panel:

- Investment costs are the most important value within the domain of profit for housing associations.

In this discussion only the participants from the housing association took part. There was some slight disagreement between the two participants. One of the participants first wholeheartedly agreed with the statement, to later on nuance the response based on the response of the other participant. The other participant notes that definitely other financial values are taken into account, like the vacancy value of the building and the IRR. The IRR and the investment costs together need to decide if a project is feasible and the vacancy value is used as a condition. The vacancy value may not be greater than the total sum of the investment costs. The reason that the housing association uses the vacancy value lies in the fact that the vacancy value of the building is greater than the market value of the building due to the relative to the free market low rents the housing associations sets. The other responded that IRR is less important for their feasibility test. This is because the rent is predetermined and therefore the amount of rental compartments is of greater importance. Beside that the projected maintenance costs of the building are also taken into account of the building. Nonetheless both participants do agree that most of the focus lies on the investment costs and how to curtail them.

6.7 Building costs

The reason for this topic were the multitude of different views that were given during the interviews. There was strong trend between most of the cases and interviewees that within transformation building costs are usually at least as expensive or more expensive than newly built. With one outlier of the District U case where it was stated that the building costs of transformation projects are significantly lower in comparison to newly built. Due to this sharp contrast the following statement was put forward to the expert panel:

- For the construction of transformations are the building costs not a driver for housing associations in comparison to demolition-newly built.

The topic was already mentioned a number of times during the panel. Wherein the overall opinion was shared that building costs are usually higher. One participant of the housing association mentioned on how due to the rising building costs more and more projects were projected to become demolished and newly built because otherwise the business case would fail. One of the independent consultants mentioned that building costs were a driver in the past. As transformations became more common first the buildings with just the right volume, location and technical qualities were transformed. And these buildings were easy to transform, nowadays the

buildings that are left are harder to transform. Thus increasing the building costs to at least comparable to newly built.

Another reason was also given. Especially on desired locations and with lower building costs, it happens quite often that the building still gets demolished due to the fact that with newly built more GFA can be realised and therefore more housing and revenue.

6.8 Time

From the interviews the value of time was mentioned by several parties. One participant noted that transformations are sometimes interesting because they can be time efficient. These are usually that the previous tenants still rent the building during the design phase of the projects, thus having already some monetary benefit from the building. Another point the participant mentioned was that the construction time can be significantly shorter than when demolishing and building anew. Therefore the following statement was presented to the expert panel:

- The realisation of transformations are time efficient

From all participants the overall opinion was that transformations should theoretically be more time efficient but in practice it is not. Although the participants differed on the reason why. The reason the participants did agree with was that in the preparation phase of transformations often face appeals from local residents. These often delay the project significantly and this happens more often than in the case of new developments. This is also not to be expected, as the building keeps its proportions and it is often in agreement with the municipality nonetheless it is the case that this happens. In the case of transformations with a monumental status the municipality can even be a delaying factor due to all the regulations.

On the notion that the construction of transformations should be more time efficient there was some disagreement. The participants agreed that not needing to construct the loadbearing structure is time saving but often the level of complexity is higher. Because of the often many adjustments that need to be made and because the object is located within the urban fabric making it harder to supply and place the construction site.

One of the participants did agree with the notion that it is handy that there are still tenants in the building before transformations. It gives a cashflow when in the preparation phase that helps with the feasibility of the building. But this is only possible as a separate company working for the housing association and not the housing association itself. As the housing association is limited by legislation.

6.9 Image

During the cross case analysis it became clear that image was sometimes mentioned directly or indirectly by the participants. Often in relation to the municipality but as it was not a regular topic within the interviews further research is needed. That is why the following statement is included within the expert panel.

- Maintaining and/or improving the image is a driver for housing association for realising transformations.

The participants strongly disagreed with this statement. Noting that image is often either forgotten, an afterthought or part of risk management. One of the independent consultants mentioned that even though housing associations are almost not conscious about their image, they should do more to improve their image as housing association often still have a bad

reputation as: “greedy people that sit on their pocket money”. Furthermore it was mentioned that image can be used as a tool and should not be a goal of the housing association.

6.10 Municipality

Within the case of the Eerste Helmerstraat it was mentioned by the participants that even though the project was not feasible it was still pursued both because of the location but also due to the fact it was part of package of different projects from the municipality and it would reflect bad on Rochdale if they would only cherry pick which projects work for them. In the interviews with De Alliantie Ontwikkeling trust between the housing association and the municipality was mentioned as vital for new developments. Therefore this topic has been chosen and has been presented to the expert panel with the following statement:

- A good relation with the municipality may costs the housing association something.

The participants struggle with the statement. Mostly because of the shared notion between the participants that the relation between the municipality and the housing association is seen as a natural one, a symbiotic one. Where the municipality struggles with improving the liveability of certain neighbourhoods, the housing associations struggles with finding new positions. And herein they can help each other. Though the participants concede that it can sometimes happen that the housing association is making extra investments in a project to please the municipality. On the other side it can also happen that there are disagreement with the municipality, though these are mostly seen as constructive.

6.11 Decision making

During the interviews it became apparent that several of the interviewees could not substantiate the reason why a building was being transformed and why it was not just demolished and newly built or even stopped. Even if it was sometimes clear that it was not feasible. Usually the decision was already made and the person in question did not challenge it. The reason for this statement is to see how fixed these decisions are and to justify the reason why this thesis focusses on the decision making at the front-end. Therefore the following statement was being presented to the expert panel:

- When the decision for transformation is made, then it won't be changed.

For this statement only the participants of the housing associations participated and they mostly agreed with the statement. Because most if not all of the transformations of their own stock are already done and for new transformations the housing associations first need to procure the building. This is such a costly endeavour that a priori researching the feasibility of the project from all points of views is needed. One of the participants noted that they have a list of conditions of a building to be even considered as an potential transformation project. Therefore when that decision is made it is often final, as a significant amount of time and funds are already invested into the project when the project is procured.

6.12 Overall driving values non-profit & theoretical framework

Driving values non-profit

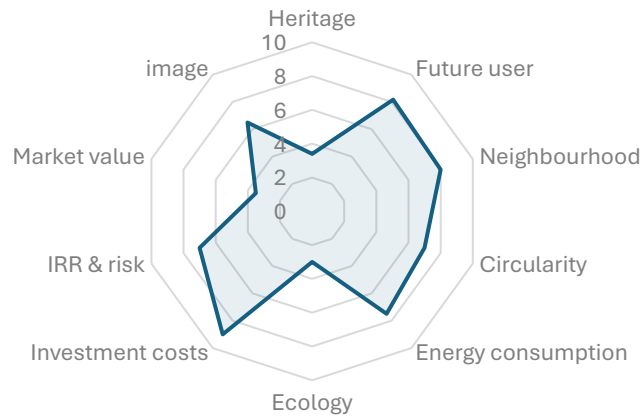


Figure19: spider diagram of the driving values of the non-profit parties, based on the interviews; own work (2025)

The spider diagram (figure 19) above is one of the concluding figures of the cross case analysis. Stating the driving values of the housing associations to do transformations. This diagram is mostly based on a double bias first from the interviewees and from the researcher. Testing it with the expert panel is needed if it resonates with their experience. Therefore this spider diagram was presented to the participants of the expert panel.

Overall the participants agree with the spider diagram. It also resonates with the participants as a recognisable way of measuring values. One of the participants of the housing associations notes that they focus mostly on their three domains of affordability, investment costs & IRR and sustainability. Especially the notion of energy usage as a driving value finds resonance as decreasing the energy usage does not only improve the sustainability of the project but also the affordability of the housing for the user. The heritage value also needs to be low unless it is for already owned stock of housing associations. This is an important distinction that needs to be taken into account while researching this topic.

There are also some points that the participants do not agree with the spider diagram, which were already mentioned during some of the previous discussion points. First and foremost ecology as a driving value needs to be greater. As was mentioned before. Secondly the image as driving value must be lower. Especially one of the independent consultants notes that it should be near zero as the housing associations often just forget their image and certainly not as an driving value. Lastly the participants notes that in the diagram there is a great value given to the investment costs and the IRR. This may give a misleading picture of what motivates housing associations as the participant declares that almost everything the housing association develops is unfeasible and this also needs to be mentioned.

Regarding the market value the participants agreed that it is indeed not a driving value now for housing associations. But on portfolio level the market value becomes more important especially when taking the LTV into account. Usually housing association take the policy value of the building which is even lower than the market value. Would any of the indicators at the portfolio level falter

like LTV or the ICR (interest coverage ratio). In that case new projects will come under enormous pressure as suddenly there is no financing anymore. In that sense the market value is important and this is something that certainly plays a role in several housing associations. Especially transformations are vulnerable to this as these kind of projects usually even more unfeasible than normal buildings.

When taken into account the suggestions of the previous paragraphs the following spider diagram (see figure 20) will emerge. The Image value is dropped, while the ecology value is risen. This image is purely indicative of the values. Further research with a greater and more quantitative scope is needed to better pinpoint the hierarchy. Nonetheless since most of figure 19 seem to overlap with the results from the expert panel it can be reasonable assumed that figure 20 closely resembles hat the driving values of housing associations are when developing transformations.

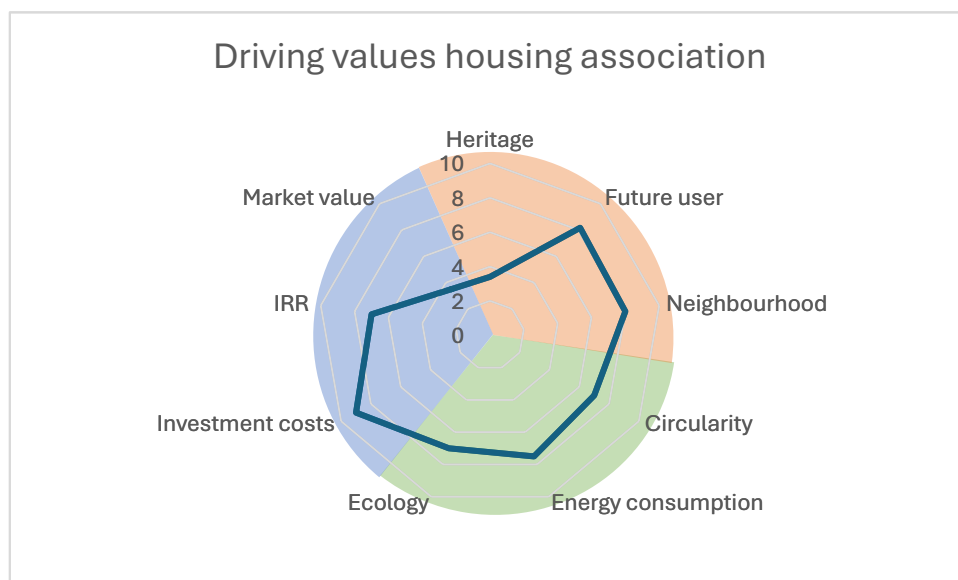


Figure 20: The driving values of the housing associations when developing new housing. The greater the number the greater importance was given to that value in the interviews and in the expert panel. The values are indicative and have no further meaning. The domains are people (orange), planet (green) and profit (blue); own work (2025)

Discussion



7. Discussion

In the following chapter the findings of this thesis will be discussed. This is divided in the subsequent parts. The first subsection will give a summary of the findings. The second part will discuss the possible interpretations of the findings in relation to existing literature. This will be followed by what the implications of the findings mean and its societal relevance. The results will be nuanced by the following subsection where the limitations of this thesis will be discussed, which will result in recommendations for further research.

7.1 Summary of findings

During the research no great differences between standard development and transformation in regards to assessing the project were seen. Both profit and non-profit parties seem to assess the different types of development roughly the same. Furthermore the usability of the spider diagram was also noted as practical and recognisable by both housing associations.

Further findings are on the values of the framework itself. It has become clear that both non and for-profit parties regard transformations as having higher building costs with the exception of the case of District U. In general the feasibility of a transformation are harder to achieve as both the investment costs and the rate of return are under pressure when transforming a building. A trend is showing wherein it is becoming more likely for housing associations to decide to demolish and newly build when procuring a new building. Adding to this is that transformations are not seen by housing associations as being more time efficient than to demolish and newly built. Being time efficient would be a motivation, because they notice and want to address the housing crisis as fast as possible. Furthermore, lower investment costs can be a motivation for transformations, as the procurement costs of new office buildings are often too high.

The market value is often overlooked as an important value by housing associations. This is because of the fact that housing associations generally are not depended upon the market value of their stock and especially in single business cases it rarely comes up. This is because it not the intention of housing associations to sell their stock, but to operate it. When developing new housing, the market value is only considered as a hard condition. Since the vacant value needs to be greater than the total sum of the investment costs. Disregarding the market value comes with a big risk if the housing market declines, it would put both the LTV and possibly the ICR at risk (Conijn, 2023). If this happens it is probably first the transformations that will be hit in such a scenario, as transformations are in most cases less financially feasible than demolished and newly built.

The domain Planet from the 3P-framework has grown strongly in importance over the last few years. Circularity and ecology have become driving values and are integrated within policy. While in the case of the Zoetelaarspassage (2018) the domain of Planet was still mostly concentrated around the value of the energy transition, this is in stark contrast to the more recent cases. Especially the values of ecology and circularity have grown strongly in the last few years. Illustrative of this is the normalisation of circular demolition. The growing importance of circularity directly translates into a greater appreciation of transformations by both for-profit and non-profit parties.

The focus is shifting within the housing associations in regards to energy consumption. As of now the energy label is still often used to determine if a project is energy-efficient when assessing it. This does not say anything about the actual energy usage of the building (Kwh/m²/year). Housing associations are trending towards using the energy usage as a metric. This would not only improve the sustainability of the building but also the affordability of the tenant.

Housing associations value most strongly the domain People within the 3P framework. This is to be expected as housing associations are usually founded with social goal in mind or came to acquire it over time (Bratt, 2012). Within the formulated theoretical framework there is one exception, that of the heritage value.

Heritage is often not seen as a driving value to develop transformations. This is because buildings with a strong heritage value often have a monumental status in the Netherlands. This comes with a scala of rules & regulations and it restricts the design process and decreases the feasibility of the business case. A nuance needs to be added here. If a building with a monument status is already owned by the housing association. In that case the housing association is driven by the heritage value to transform and maintain it.

No significant absence of values was observed within the cases, with the exception of the market values as addressed before. On the other hand certain values and indicators did surface during the interviews that were not part of the theoretical framework. These are heritage use value, time, image and location. These values were noted during the interviews as important values or indicators and defined in chapter 4. The implication of this is that housing associations are often well aware of the different values and how they relate to each other. On the other hand there were some missing indicators. Most notably the indicator of social as part of the heritage value. This indicator shows the social attachment of the local residents to the building. The absence of this indicator is surprising, since this value is almost always present even in the case of an ugly but familiar office (Remøy, 2024).

It does not seem that there is often a clear difference between assessing new developments and transformations. Neither in the documentations, interviews nor in the expert panel great significance was given to the distinction between assessing the two types of construction. As both are seen as tools to achieve their main goal of providing affordable housing.

7.2 Scientific relevance

In this part the data is compared to the theory that this research is based on and critically examined, starting by comparing the findings with the scientific relevance of this study.

No clear difference between for-profit and non-profit was seen. This was not expected as the parties suggest a strong differences on the profit domain of the 3P framework, since the 3P framework is about finding a balance between the three domains. Nonetheless the findings mostly show an overall overlap of driving values between the parties. In this case there seems to be no conflict with the existing literature as Hoomans (2019) describes the values of the housing association as follows:

“Dutch housing associations take values as affordability, financial continuity, quantity and location of houses, quality of houses and housing environment into account when making strategic choices.” (Hoomans, 2019, p.11)

Even so, differences were found when discussing the indicators. A critical problem lies with the indicators of the values. The values in the results are based on indicators, which are based on the recommendations of CES (2014). Even though an indicator is present it may not support the correlated value. For example the indicator of diversity -that different social-economic groups are part of the neighbourhood- is clearly present in the case of District U. The reasoning for this diversification is not to support the value of the neighbourhood, but to lower the risk of vacancy by diversifying the portfolio. As such, the case of District U scores high on the indicator of diversity and thus on the value neighbourhood within the framework. Therefore the findings of the cross-case analysis can be questioned on their reliability. Nonetheless overall the indicators did show what the underlying motivating values are, as was the point of this study.

Furthermore it fills in, at least partially, the knowledge gap of transformations and housing associations as discussed in the introduction of this thesis. Even though the findings of this research are not spectacular, nonetheless it can give justification for both further research (as will be discussed later in this chapter) but also due to the comparability between the different types of development existing research on e.g. decision making process new developments housing associations, can be applied to transformation projects.

This thesis uses the 3P-framework of Elkington (1998) dividing the values within three domains. During the interviews and expert panels it became clear that there are values that are either not confined to one domain or even stand outside of the whole framework. Energy usage for example was used as being solely confined to the domain Planet but during the expert panel its inclusion was also seen as being part of People. Lower energy usage would also benefit the affordability of the housing for its occupant, a strong value of the housing association. Furthermore the values image and time are outside of the 3-P framework altogether. These values impact each of the three domains in their own way and are hard to confine to one of the domains. E.g. time in this thesis was used as part of the profit domain but during the expert panel it was also often used in conjunction with accessibility of new housing. There seems to be an internal motivation from housing associations & municipalities to realise new housing in timely manner as seen both in the interviews and especially in the expert panel. Therefore the findings seem to imply that a 3P-framework on its own is not sufficient to properly balance and showcase values that influence multiple domains. More on this in the paragraph with recommendations for further research.

7.3 Societal relevance

The main implication of the findings of this thesis is rather bleak for the future of transformations. If the findings of this thesis represent reality the amount of transformations will most probably decrease in the following years. Restrictive policy, rules and regulations, rising costs, lower rates of return and appeals from local residents all seem to hamper the business cases of transformations. While transformations are only seen as a tool to provide affordable housing, not as goal by itself by housing associations. Even though the driving value of circularity is on the rise, the weight of one value cannot outweigh several other values. Furthermore the financial space of housing associations is shrinking. Transformations are usually one of the more expensive solutions, therefore the expectation is that these developments will be the first to cut back on. Specifically the same reasons already apply to buildings with a monumental status. Housing associations within this study actively try to avoid these kind of transformations.

Nonetheless this study can help provide grounds for new transformation projects, as it gives insights into the motivation for transformations by housing associations. These findings can be instrumental when developing policy, both within housing associations and governments to promote the development of transformations. These policy changes can be effective tools. This is visible when looking at the scrapping of the landlord tax (verhuurdersheffing), this resulted in greater investments to make existing housing more affordable and more sustainable (Kraniotis & Kraniotis, 2024), while at the same time an increase in housing production was seen.

7.4 Limitations

Notable limitations of this thesis will be discussed here and their implications on the findings.

One of the major limitations of this thesis is the lack of access to documentation regarding the for-profit cases. This hindered the possibility to confirm their claims and assess whether they were intrinsically or extrinsically motivated. The interviews with the for-profit parties were overall more optimistic than those with the housing associations who sometimes also reflected on themselves for shortcomings (for example in the case of the Zoetelaarspassage, there was a lack of cooling in the hallways). This made it harder to confirm the strong claims from the for-profit parties. Namely of the significantly lower building costs (District U) or the overall positive feedback from the tenants of Hillside even though municipalities and housing associations critic the liveability of these type of housing. For the cross-case analysis the findings were taken on face value but there is a possibility of response bias.

The for-profit parties were all developing investors. This makes it easier to compare with the housing associations but also narrows the narrative of this thesis of what a for-profit party is., thereby limiting the results of this thesis.

At the same time only large housing associations were used for this study. Therefore the same problem can be found about the non-profit side of this research. Nevertheless this can be defended, as this thesis also underlines, transformations are seen as complex projects that are often less feasible than other types of development. Therefore only housing associations with enough fiscal space can be included in research as other housing association may have the willingness but not the capabilities.

The two previous paragraphs describe an underlying limitation: the small sample size of the case studies. This makes it harder to achieve external validity, as bias will have a greater impact on the findings. The respondent bias and the bias of researcher are very impactful. The bias of the researcher was impactful in visualising the qualitative data from the interviews, determining based on the participants responses how important certain indicators were. To negate the biases and to achieve external validity the expert panel was used, but this is also limited as an expert panel is not exempt from respondent bias.

Limitations regarding the data also arose due to the differences between the cases. One of the cases is an area redevelopment, while the other is a school roughly a hundredth of the size of District U. There are also differences in the type of building, target group and exploitation time of the buildings. Therefore it can be concluded that the prerequisite of comparability was not met and stricter criteria need to be set, because it makes it harder to generalise the findings of this study. Nonetheless it also mirrors reality that each transformation case is different and other a different balance of values was made. Different transformations will have different driving values, as in one case the building costs may be low and in another the community value high.

7.5 Further research recommendations

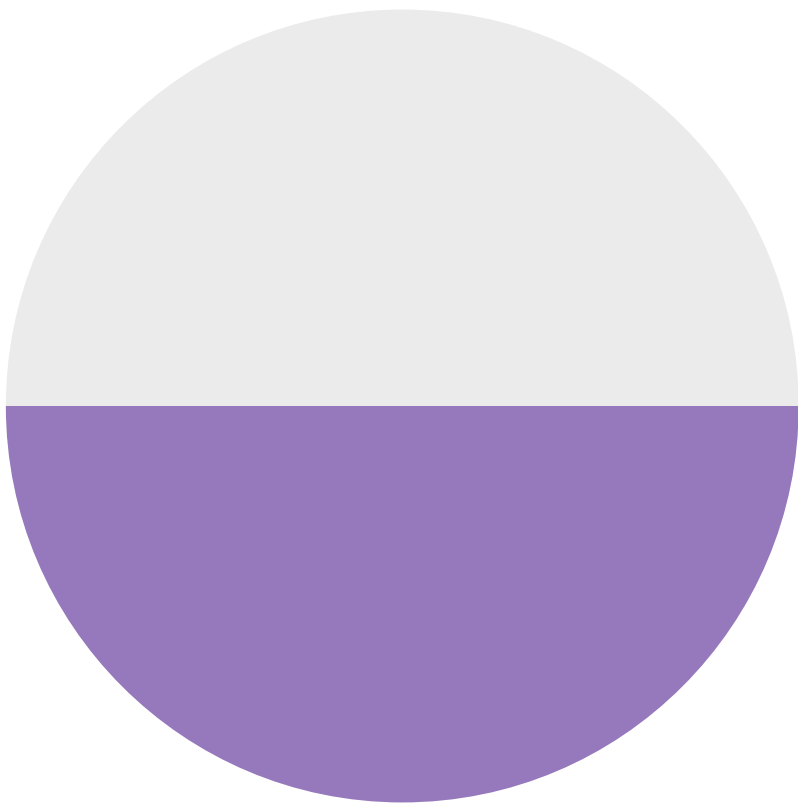
This study recommends further research into the creation of a standardised valuation tool for transformation projects. The findings of this study have created clear insights in what drives a housing association to commit to transformations. Further research is needed to better define the driving values and the underlying indicators, since this study does not cover fully if values are intrinsically or extrinsically motivated. Knowing if a value is extrinsically motivated is especially interesting for policymakers as these are the drivers they can influence directly.

The findings indicate housing associations are generally passive developers in the case of transformations. Often another developer or a municipality contacts them about a potential transformation project. De Alliantie Ontwikkeling noted that because they are a separate company connected to the housing association, they are more pro-active in searching for new transformation projects. Further research is needed into why and when a housing association is passive or pro-active in regards to new transformations.

Within the findings the participants mentioned that the amount of appeals by local residents is greater than in the case of newly built developments. This often delays transformation projects. The reason why this is the case or if this is just a case of response bias is unclear. Further research into this could be valuable for developers, policymakers and house hunters.

In the book *Transformatie naar woningen*, the chapter *de markt voor transformaties* (the market for transformations) by Remøy & Boelhouwer (2024) the office market was described as a replacement market. The demand is saturated and new developed offices replace the existing stock, thus creating a constant flow of vacant office stock. Naturally the market value of these office should drop, as vacancy hurts the bottom-line. This is in stark contrast with the findings. Participants noted that the market value of the offices is often still determined by the NPV as if the office is not structurally vacant. Therefore there is often a mismatch between the procurement price of the housing association and the one selling the office. As of present this is a clear barrier for transformations. The chapter is not wrong in calling the office market in the Netherlands a replacement market. Nonetheless the phenomenon is peculiar and further research into this is recommended as it one of the main, if not the greatest barrier mentioned within this thesis.

Conclusion & Recommendations



8. Conclusion and recommendations

In the following chapter the research questions will be answered and recommendations will be given. First the sub research questions will be answered concisely, since these are already answered in the chapters before. RQ 1 is answered in chapter three, RQ 2 & 3 answered in chapter four, RQ 4 in chapter five and RQ 5 in chapter six. This chapter will end with answering the main research question together with the recommendations that resulted from this research.

8.1 sub-research questions

1. What are the values within assessment criteria as seen in existing literature for real estate developments?

This question was answered in chapter 1. The basis for choosing the underlying values for the topic of this thesis within existing assessment criteria is the quadruple bottom line of Bratt (2012). From this the values as they are summarised in table 3 (chapter 3) came forward. These were combined in the theoretical framework with the use of a spider diagram as seen in figure 3 (chapter 3). The theoretical framework is based on the 3P-framework of Elkington (1998). This framework divides the values in three domains of People, Planet and Profit. This makes it easier to understand to group the different values. To determine the presence of these values, indicators were identified with the use of literature and with the use of the recommendations of CES (2014). Lastly, because these are the values that determine the feasibility of the project, these values are seen as driving values. When these values are present within a project it will drive the development of the project, just like the drivers from Bullen & Love (2011).

2. What are the values used by for-profit parties to assess transformation projects?

In the interviews the theoretical framework of the first chapter was used to find the driving values of two for-profit cases. The overall driving values were found within the domain of Profit but the parties differed for their justification to use transformation to develop new housing. For one party the driving values were found mostly within circularity and the possibility of less restrictive rules and regulations, while in the case of District U the driving values lay with lower building costs and the added value to the rest of the neighbourhood. Transformations can give a project added qualities that are not possible with newly built developments. Sustainability was also mentioned but not strongly as a driving value. The only comparable value between the two cases is the need to have a feasible business case.

3. What are the values used by non-profit parties to assess transformation projects?

In the interviews the theoretical framework of the first chapter was used to find the driving values of two non-profit cases. The overall driving value for both cases was to provide affordable housing, though there were some stark differences between the two cases. In the case of the Eerste Helmerstraat the other significant reason to transform the building was from a motivation to improve the neighbourhood. Interesting is that both cases do not seem to give much value to buildings with a monument status -the buildings that usually have the greatest heritage value- the reasoning behind this being the strict rules and regulations attached to them. Furthermore heritage does not add value towards the goal of providing affordable housing and thus is not a driver for housing associations to do transformations. For the domain Planet it was clear from the interviews that still most attention still goes to the energy usage of the building, though circularity and ecology are gaining importance and can be seen as growing driving values. In regards to the financial feasibility of the cases both parties emphasised the importance of lowering the

investment cost as much as possible. When the return on investment was discussed, a lesser importance was given to it, while the market value of the finalised transformation was often not even mentioned. Thus a strong hierarchy is present of first investment cost, then the return on investments and lastly the market value. This gives the impression that housing associations are mainly concerned with the investment costs.

4. Where do the values of for-profit and non-profit organisations overlap, where do they conflict and what are the missing values?

Overall both types of organisations seem to overlap on most driving values though the underlying reasoning may differ quite a bit. E.g. the value given of a certain location may be based on the financial added value to the transformed product but may also be based on the possibility of strengthening a neighbourhood by improving the diversity without having to displace existing residents. Furthermore a driving value like affordability is seen differently, for one party it is the maximum social rent, while for the other party it is about 70% of the legal maximum price of social rent. Nonetheless overall the driving values between non-profit and for-profit are comparable.

The driving values conflict mostly in relation to the market value and the neighbourhood value. The market value is important for the for-profit parties, not only as part of risk mitigation -as is seen with the housing associations-, but also as a part of the return of investment in the case of District U and as a part of financing future projects as it was the case with Hillside. Herein the for-profit and not for profit conflict on two points. One is the exploitation, the non-profit the cases the buildings would be exploited over a long period of time (+/-50 years) while in the for-profit case parts of the building were sold directly (Hillside). When the developer expects to exploit the building over a longer period of time the market value becomes less relevant as a driver. On the other side owned stock is used as collateral but because housing associations can already finance their project with low interest it becomes less relevant as a driver to achieve a high market value. In the case of Hillside the owned stock is used to also finance future projects by selling existing stock, as such the market value does become a driving value when developing new housing.

The neighbourhood value is significantly lower for the for-profit side than for the housing association. While the for-profit parties were not totally disinterested by the neighbourhood as a driving value as it could impact the liveability of the project significantly, they tended within this interview to only focus on certain indicators. The non-profit side did at least mention them all even when in the case of the Zoetelaarspassage the participants were mostly involved with the financial side of the project and developments as a whole. This is something that can result in unforeseen consequences as was also illustrated in the interviews of Hillside and some examples of projects from expert panel. Where the social cohesion within the projects were not properly valued and intervention was needed from the exploiting party to keep the building sufficiently liveable.

All values from the theoretical framework were present in the interviews. While certain values were not mentioned by specific interviewees, they were often either mentioned by another participant from the same organisation or were part of their risk management. With the exception of the LTV, as this was never noted as a driving value except in the case of Hillside. Because the market value is such a blind spot of the housing associations, it can result in unforeseen consequences as became clear during the expert panel.

Certain values and indicators did come up during the interviews that were not part of the theoretical framework. Most important of these are *heritage use value*, *time*, *image* and *location*. These values and indicators were noted during the interviews as important values and defined in chapter 4.

5. How to balance/harmonise conflicting values and add missing values for transformation projects of housing associations?

During the interviews and the expert panel it became clear that housing associations are already used to thinking within a broad framework wherein the values can be in conflict with each other. Values that were not incorporated into their evaluation frameworks were often part of the risk management. Therefore there was no real instance within this thesis wherein there were stark conflicts between the driving values. There was always a balancing mechanism between the different values.

This made it easy to use the paradox perspective as this seems to be already in use with the housing associations. A clear example of balancing the different values came up during the expert panel with regards to whether transformation projects are seen as sustainable enough. Herein the housing associations clearly stated that the other aspects of circularity and sustainability as a whole will not be ignored but that the ambitions are often lowered, as to keep the project financially feasible. Herein a clear balance of the values is made, while not ignoring the other values. Demonstrating that while sometimes certain values get more weight within a specific project the other values will not be ignored.

Derivable from this, is that it is important not to use a strict hierarchy of values with the paradox perspective. As it can lead to blind spots with unintended consequences when developing transformations. Though this is something even the participants from the expert panel sometimes struggle with. For example, the importance of the investment costs is usually seen as the most important, but during the dialogue it became clear that it has to be seen in relation to the return on investment. Furthermore the market value of a new development is often undervalued by the developer. This can lead to an increase in the overall LTV and ICR of the housing association. The worse the financial health of a housing association is the greater the chance that transformation projects will be halted, since transformation projects are overall more expensive in comparison to newly built.

Even though the participants mentioned time and again the importance that it is a network of overlapping values. They still set up a certain way of hierarchy within the spider diagram on how the driving values for developments were seen within the housing associations. Therefore, there still seems to be a need of or a bias towards certain priorities as on how to tackle developments.

To prevent that other values are dismissed outright internal policy is needed that certain conditions need to be met. These conditions hit all the three domains to ensure the values of the housing association, thus preventing that only projects with certain values will be realised with the possibility of unintended consequences.

Interesting to note was the increasing importance of the domain of Planet over the last few years. It showcases which missing values are implanted within the assessment over a relatively short period of time. E.g. when comparing the values in the case of the Zoetelaarspassage (2018) with the case of the Eerste Helmerstraat (2025) the starkest contrast is within the Planet domain and this shift was confirmed by the expert panel. According to the expert panel there has been an internal motivation to move more into that direction.

8.2 Main research question, conclusions & recommendations

In the following paragraphs the main research question is answered and recommendations that follow from it are discussed. Beginning with the main research question.

8.2.1 Main research question & conclusions

- How can the transformation of buildings into housing be valued/evaluated within housing associations in the Netherlands at the front-end?

The valuation of transformations should not be any different from other types of developments to keep a fair comparison. This is related to with keeping things understandable, as keeping two different standards needlessly complicates things. During the interviews when the participants were asked about comparing the business case of transformations with that of demolition & newly built developments, they answered that most if not all the aspects were the same, although differently valued.

An assessment method should be broad and include not only values as already present in the building but also potential indicators of future driving values. The reasoning behind this broad approach is to prevent unforeseen consequences later on in the project but also to make sure that values inside the Planet and People domain are directly taken into account. At the same time the assessment tool needs to be comprehensible. Therefore not all values can be taken into account, but they can be incorporated as hard conditions and/or part of the risk mitigation. This thesis would recommend the use of about nine values, three for each of the three domains. The reasoning is goes as follows: the three domains are comparable to what is used in practise but if only three domains are used it is hard to visualise the differences as can be seen in chapter five when the findings were simplified to the three domains. Or in other words, combining values may muddy the water. The justification for using the nine values is that the participants from the interviews -in which also just these nine values were used- said that they covered all the bases of the project. Thus incorporating a paradox perspective within the valuation of transformation project. It will prevent blind spots that may occur during development. Resulting in a decrease of unintended consequences of the transformation. Furthermore this way the benefits of the paradox perspective as stated in the literature review. Keeping it with the nine values allows it to still be comprehensible when visualised as it was easily explained during the expert panel with ten given values within a spider diagram.

The nine driving values are overall the same ones as the values used in the theoretical framework. Some reasoning needs to be given to support some of these values.

Firstly, the value of image can be dropped, but should still be part of the risk assessment of each project. It is not in the nature of housing associations to strive for a good image but to provide affordable housing. Implementing image as a driving value can dilute from that mission.

Heritage as a value still needs to be included even though both the housing associations and the independent consultants would rather not use buildings with a monumental status unless it is already in possession of the housing association. The main argument for still implementing is twofold. Firstly, the heritage value is not the same as a building with monumental status, as can be seen in the case of District U. In the case of District U it became clear that heritage can add to both the character of the neighbourhood, give a sense of belonging and might also provide unexpected qualities that improve the liveability (e.g. higher ceilings). Secondly, it is in the nature of transformations that one is working with something that is already there. It could be blind spot

to automatically dismiss the heritage value of an old office as the existing residents of the neighbourhood may value it. And, noting from the expert panel that transformations are often more the subject of appeals by local residents, this might also be a way of risk mitigation. Understanding the heritage of the building, it may help with understanding its position within the neighbourhood.

The market value is often not a driving value on the level of a single development. The vacancy value of the building is often seen as more important by the housing association as it is often used as a hard condition for new developments. On the portfolio level the market value is important for a healthy LTV & ICR. Therefore increasing the importance of the market value is needed to keep investments possible into the future. An alternative reason why market value -especially in regards to transformations- needs to be more of a driving value is because procurement is in most cases the deciding moment if a building will be transformed. Avoiding overpaying for the building and having the possibility to sell the building for roughly the same price as it was bought should lower the risk of procurement.

Risk and IRR should be split from one other, as it muddles the water. The IRR, according to the literature, should be depended on the risks of the projects. In the case of the housing association this often not the case as profitability is not their main concern. This may create a blind spot for housing associations and can result in unfeasible portfolios. Therefore this thesis does support risk based IRR goals.

Nonetheless the risk assessment should be seen a separate valuation of the project and not part of the value framework, since it is more common to have a risk assessment beside the evaluation. And is therefore more practical for implantation in practice. As a separate document by keeping the data as qualitative data it can better protect against blind spots. As risks are correlated not only to IRR but also to the other values of the spider diagram. Furthermore risks are depended on both impact and probability, something that can't be shown on the spider diagram.

Which weight is given to each of the values is up to the housing associations themselves to determine. Different circumstances will result in other priorities, but it is the recommendation of this thesis to use indicators to indicate the presence of certain values. Especially in the case where the value can still be significantly adjusted at the front-end of the project.

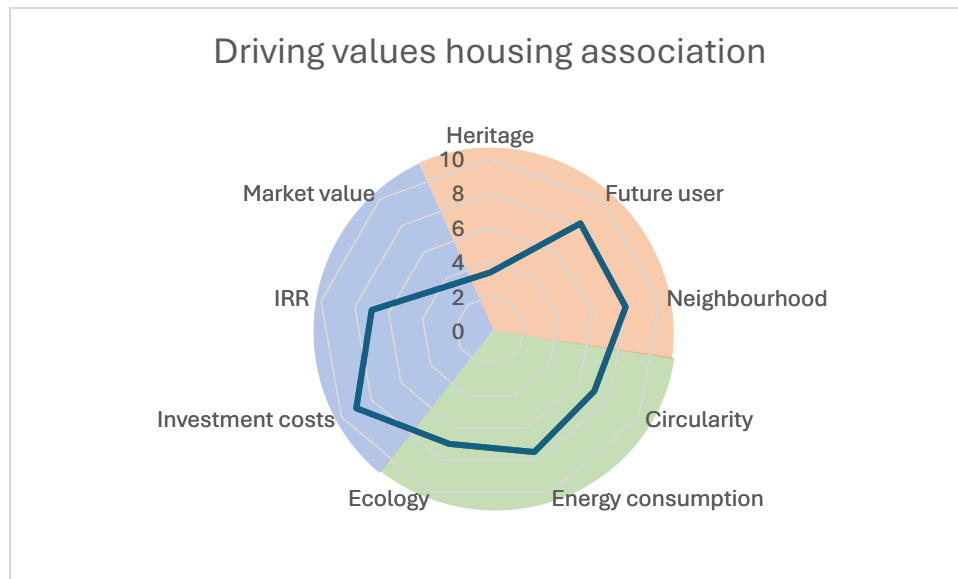


Figure 21: The driving values of the housing associations when developing new housing. The greater the number the greater importance was given to that value in the interviews and in the expert panel. The values are indicative and have no further meaning. The domains are people in orange, planet in green and profit in blue; Own work (2025)

8.2.2 Policy recommendations

Even though it is not the main scope of this thesis some recommendations towards policy makers both on national and local level came up during this research.

Heritage.

Current heritage policy is making housing associations actively try to avoid buildings with monumental status. This is not of a lack of willingness to work with the buildings with a monumental status but due to the hassle of conforming both to the wishes of the municipality and trying to change a buildings function. In the case of transforming a building it is near impossible to conserve the building while changing its function. The recommendation is to balance conserving the heritage with giving the building a new life. Since vacancy of non-use of the building can lead to unawareness and therefore depreciation of the heritage (Nyaupane & Timothy, 2009), the use value of the building should be considered as instrumental to heritage reservation.

A way to balance these two aspects is seen in the case of District U, Wherein the dialogue between the municipality, local residents and the developing party together with a report evaluating the buildings within the Unilever complex resulted in balance that worked for the stakeholders involved. While in the case of the Eerste Helmerstraat Rochdale had to comply with the rules a regulations of the municipality. Here there is no case of searching for the balance but of ignoring the needs of the developing party that is needed for the conservation of the building. Resulting in the problem that developing parties are actively avoiding buildings with heritage regulations.

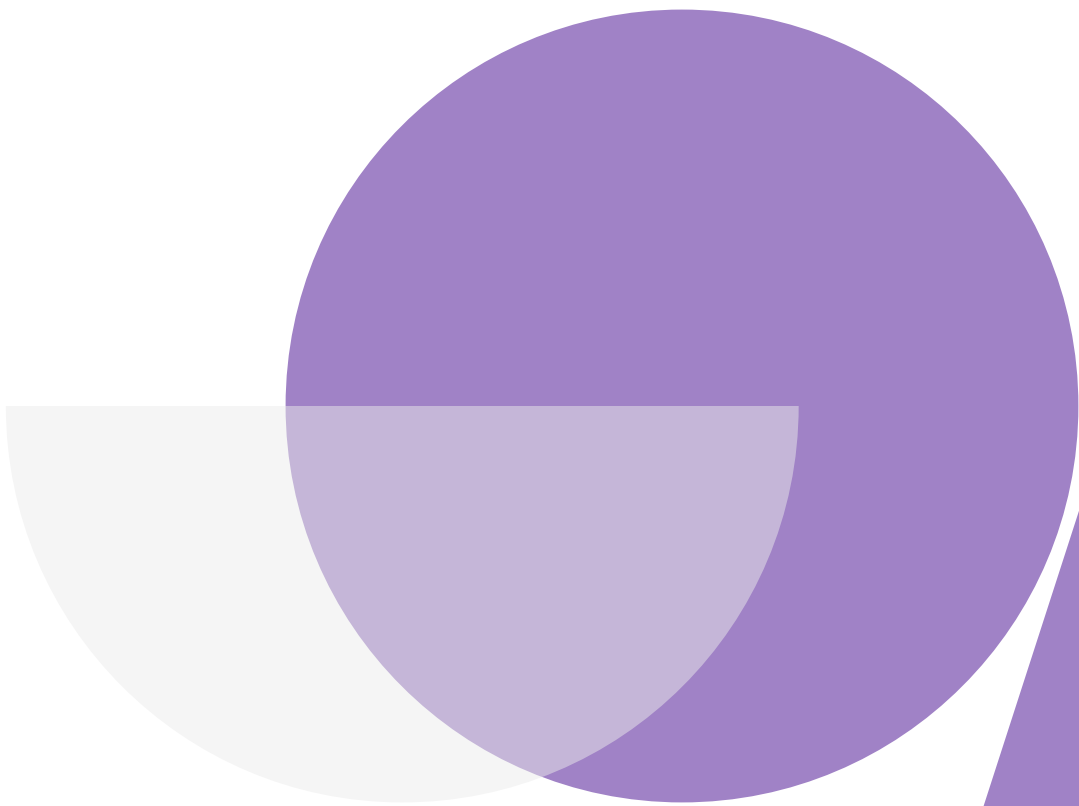
The recommendation is therefore for the policy makers to include a paradox perspective mindset, wherein not only the heritage value is valued. This way when other values like circularity, energy transition, affordability etc. are implemented some of the strict heritage regulations may be dropped in dialogue with the stakeholders. This should give all developing parties a greater incentive to transform heritage buildings into housing, while preserving the heritage within reasonable expectations.

Procurement

It is as of now harder for housing associations to procure buildings that have no DAEB (Services of General and Economic Interest) function in comparison to other developers. Some housing association have made a sister company to be able to do this more easily. This hinders housing associations to be pro-active in transformation projects. Procurement of the new building is one of the biggest parts of the investment costs. Lowering these costs in exchange for some risk has precedent and with success. Housing association De Alliantie, with her sister company De Alliantie Ontwikkeling has developed several transformations over the years while taking the initiative.

The recommendation for policy makers is to drop these restrictions. Since it provides an opportunity for housing associations to procure offices for transformation more easily and more affordable. Since the housing association in the Netherlands are already under financial stress, free market parties should not be concerned with unfair competition as this only levels the playing field. It may be possible that in the far future the investment capability of the housing associations may improve. In that case the policy may be revised but as of now this is not the case and both the housing and environmental crisis need immediate relieve.

Reflection



9. Reflection

9.1 Introduction

This thesis is part of the wider discussion about circularity within real estate and construction management. Even though circularity is not the main topic of this study the implications directly impact the prospect of the circularity and sustainability of the construction sector in the Netherlands. Alongside this is, of course, the discussion of balancing values. This is even more important in the case of housing associations as choosing circularity means often having to lessen either their social or fiscal ambitions. Striking this balance is the main aim of this thesis and in this chapter the research will be reflected upon. First discussing the methodology, followed by the process and personal reflection on the process. Lastly a small part looking towards the defence of this thesis and the seven questions that need to be answered according to the graduation plan.

9.2 Method

This thesis is a qualitative study based on a literature analysis. The analysis was based on three different aspects: framework, the driving values in the three domains people, planet & profit and the use of the paradox perspective. The fundament of the theoretical framework lies in the analysis of what the baseline principles are within housing associations. Based upon that the three domains of people, planet and profit framework of Elkington (1998) was chosen. While further values within those domains were also backed by the recommendations of CES (2014) to not only define the values but also give indicators to those values as to be able to identify them within the case-studies. This part of the literature was also the basis for the first theoretical framework that would be used to analyse the case studies, as can be seen in the figure (22) beside. By depending upon a rather outdated basis for the framework as the 3P-framework has been a choice because of limitations. As more contemporary (e.g. the one of Carvajal et al. (2025)) usually expand upon the 3P framework. This might have influenced the outcome of this thesis as certain aspects of sustainable development and governance are not included. Nonetheless using the simplistic triple bottom line of Elkington (1998) made it adjustable to the inputs from the participants of the empirical part of this study. Lastly, in the literature review the paradox perspective was used, as to give insight during the expert panel what the consequences of disregarding a value can be when developing transformations. In hindsight, the use of paradox perspectives was less applicable than assumed at first. Housing associations in the cases covered in this study rarely show blind spots and have an understanding of the implications of each of the values that were part in this thesis.

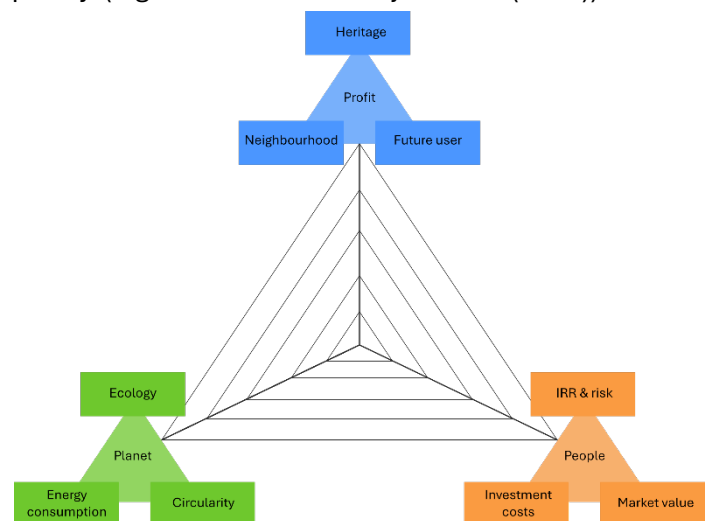


Figure 22: theoretical framework displaying the driving values for developing transformations using the 3P-framework of Elkington as basis; own work, 2026

The empirical part of this thesis consists of case studies based on interviews and an expert panel. The interviews were based on the theoretical framework of the literature and gave substance to the interviews. The interviews were bound to a case to contextualise the values. Choosing the case studies was challenging. This mostly had to do with finding comparable case studies. Since transformations are unique and complex projects with a great scala of design solutions. Although conditions were set, finding case studies that met them and with a party that responded was impractical. The comparability of the case studies was therefore compromised. And still, of the eight possible case studies only four responded positively.

The interviews were divided into for-profit and non-profit cases. Under the assumption that this will provide insight in the difference between the two parties in regards to transformations and thus give reason to further research the knowledge gap as described in the beginning of this thesis. The interviews were analysed and visualised. For the visualisation of the values mentions of indicators were used to quantify the findings. Herein lie three problems. First and foremost is the double bias at play. As the bias of the participant and the bias of the researcher together decide the valuation. Secondly because of the limited number of participants and cases a single participant will have significant influence on the findings. Both of these shortcomings were counteracted by the use of the expert panel. As the expert panel would test the findings of the case studies.

But the last problem is the most significant. The indicators were only tested in the interviews upon presence and the significance given to them by the participants without taking into account the different interpretations of those indicators. E.g. affordability for a non-profit may have a different meaning than for a for-profit, even though both mention it and find it an important driving value when developing transformations. Because of this, there was no substantial difference between the findings of the for-profit and the non-profit on the whole. This was mostly counteracted with the use of a rich description of the interviews and thus contextualising the findings. Another counter-measure to this problem would have been the use of documentation of the cases, to mirror the interviews with the documents. Unfortunately, only the non-profit parties would provide sufficient documentation to substantiate the interviews. Reflecting on this, documentation would significantly enhance the viability of the findings from the interviews.

The last empirical part of this study is the use of an expert panel. The panel consisted of two previous non-profit party participants from the interviews and two independent consultants. The participants were shown the findings of the interviews with the use of statements which they could debate. These statements were based on the findings but could have been better adjusted to provide more relevant findings to the main research question. The choice of re-employing the participants from the interviews was made due to a combination of time limitations and a lack of interest from other housing associations. This most probably has impacted the outcome of the findings as their bias again influenced it. To balance this, the two independent consultants would also provide their insights. Most probably it would have been better to invite other experts from housing associations.

The findings of both the interviews and the expert panel changed the theoretical framework from the literature analysis. The interviews showcased certain missing values and indicators within the framework. These were tested within the expert panel to finalise the theoretical framework. Reflecting on this, it went considerably well. It gave way to an expended, but still clearly based upon, triple bottom line.

9.3 Process and personal reflections

Reflecting on the process I look back with a feeling of accomplishment. It is in my nature to look both widely and in detail to try to understand underlying processes and this was the crux of this thesis. It also provided the possibility to use my professional experience as a building cost consultant while broadening my horizon. The inclusion of the housing association was not personally motivated by the knowledge gap but by an intrinsic desire to understand how to combine practical applicability with idealism. The choice for transformations was based upon my idealism. As I have both a bias towards preserving history and have inherited a certain level of frugality. Due to both aspects I have been a strong opponent of demolition.

It's in this way that I came into contact with my first mentor Hilde. Together with her and Gerard the scope was defined, and they led me when developing the methodology. Especially Gerard helped me with breaking up the thesis and making it comprehensible for me, as in the beginning of this study I was overwhelmed by the assignment. The reason for this lies probably within my autism. Since with autism information is processed differently and, in this case, made it harder to comprehend and limit the scope. Herein both Gerard and study advisor Milka helped me to steer through this process.

Before starting the empirical research, I was uncertain on how to approach external parties. Together with the guidance of Skaal and Gerard this challenge too was tackled. Without the help of these external parties this research could not have taken place. I'm therefore also grateful of the following participating parties: De Alliantie Ontwikkeling, Rochdale, Leyten, B-right and Republiq.

Between the P2 and the P4 there were some other obstacles. It was sometimes hard to convey my ideas towards my mentors. This has to do with assumptions on both sides, resulting in miscommunication. But these were often cleared up with the help of the mentors during the counselling sessions in between the different stages of the thesis. Their help was mostly in helping to clarify the methodology and underlying ideas underneath. Helping to shape my chaotic thinking into a comprehensive structured whole. As well as assuring me when I was on the right track.

When working towards the finalisation of the thesis the findings impacted my understanding of value driven development. The findings have shown the complex nature of the development of transformations as well as the delicate balance housing associations need to make. It has increased my appreciation of housing associations and invigorates me to also better include in my professional career sustainable and social values.

Lastly the research was done according to ethical standards. All the participants were well informed and gave consent for the usage of their data. They have been given the chance to withdraw or correct data from the interviews. Furthermore this research has both internal and external validity. Internal as the aim of this research and the output are nearly the same, with the exception of the added conclusion regarding policy recommendations. These followed naturally from the findings. And this thesis has external validity from testing the results to the expert panel.

10. References

- Aedes (2021, 6 September) *Standaard en Streefwaarden*. <https://aedes.nl/verduurzaming/standaard-en-streefwaarden> consulted on 1-4-2025
- Almahmoud, E., & Dolo, H. K. (2020). Identifying the key factors in construction projects that affect neighbourhood social sustainability. *Facilities*, 38(11/12), 765–782. <https://doi.org/10.1108/f-11-2019-0121>
- Arge, K., & Hjelmbrække, H. (2012). Value enhancing processes in building and real estate. In *DELIVERING VALUE TO THE COMMUNITY* (pp. 122–135). <https://sintef.brage.unit.no/sintef-xmlui/handle/11250/2425161>
- Australia ICOMOS. (2013). *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*. Burwood: Australia ICOMOS. <https://australia.icomos.org/publications/burra-charter-practice-notes/>
- Blaikie, N., & Priest, J. (2019). *Designing Social Research: The Logic of Anticipation*. Polity.
- Brand, S. (1994). *How Buildings Learn*. New York: Viking
- Bratt, R. G. (2012). The Quadruple Bottom Line and Nonprofit Housing Organizations in the United States. *Housing Studies*, 27(4), 438–456. <https://doi.org/10.1080/02673037.2012.677016>
- Buijtendijk, R., & Buijs, M. (2023, 5 October). FactCheck | In Nederland sta je eindelijk op de wachtlijst voor een sociale huurwoning. Colliers. Consulted on 17 January 2025, van <https://www.colliers.com/nl-nl/research/factcheck-in-nederland-sta-je-eindelijk-op-de-wachtlijst-voor-een-sociale-huurwoning>
- Bullen, P., & Love, P. (2011). Factors influencing the adaptive re-use of buildings. *Journal Of Engineering Design And Technology*, 9(1), 32–46. <https://doi.org/10.1108/1726053111121459>
- Carvajal, A. L., Matias, E., Sario, J., & Bondoc, B. (2025). International Journal of Open-access, Interdisciplinary and New Educational Discoveries of ETCOR Educational Research Center (iJOINED ETCOR). *International Journal Of Open-access Interdisciplinary And New Educational Discoveries Of ETCOR Educational Research Center (iJOINED ETCOR)*, 4(1), 611–632. <https://doi.org/10.63498/nxz2st241>
- Centraal Bureau voor de Statistiek. (2024, 27 May). Relatieve woonlasten in Nederland hoger dan in meeste EU-landen. *Centraal Bureau Voor de Statistiek*. <https://www.cbs.nl/nl-nl/nieuws/2024/22/relatieve-woonlasten-in-nederland-hoger-dan-in-meeste-eu-landen>
- Centraal Bureau voor de Statistiek. (2024, 11 November). 8 procent minder woningen ontstaan uit transformaties in 2023. *Centraal Bureau Voor de Statistiek*. <https://www.cbs.nl/nl-nl/nieuws/2024/45/8-procent-minder-woningen-ontstaan-uit-transformaties-in-2023>
- Centraal Bureau voor de Statistiek. (2025, 4 November). 10 procent minder woningen ontstaan uit transformaties in 2024. *Centraal Bureau Voor de Statistiek*. <https://www.cbs.nl/nl-nl/nieuws/2025/45/10-procent-minder-woningen-ontstaan-uit-transformaties-in-2024>
- Centraal Bureau voor de Statistiek. (2023, 9 October). *Brede welvaart*. Centraal Bureau Voor de Statistiek. <https://www.cbs.nl/nl-nl/dossier/brede-welvaart-en-de-sustainable-development-goals/monitor-brede-welvaart-en-de-sustainable-development-goals-2023/brede-welvaart>

- CES. (2014). *Conference of European Statisticians Recommendations on Measuring Sustainable Development*. Conference Of European Statisticians, New York & Geneva.
<https://digitallibrary.un.org/record/787789>
- Chegut, A., Eichholtz, P., & Holtermans, R. (2016). Energy efficiency and economic value in affordable housing. *Energy Policy*, 97, 39–49. <https://doi.org/10.1016/j.enpol.2016.06.043>
- Conijn, J. (2023, 4 september). *DrieCompartimentenModel 2.0*- Finance Ideas. Finance Ideas.
<https://finance-ideas.nl/driecompartimentenmodel-2-0/>
- Elkington, J. (1998). Partnerships from cannibals with forks: The triple bottom line of 21st-century business. *Environmental Quality Management*, 8(1), 37–51.
<https://doi.org/10.1002/tqem.3310080106>
- Eibach, J. & Historisches Institut der Universität Bern. (2014, april). *Doing house and neighbourhood*. <https://doi.org/10.48350/66673>
- Feddes, F. (2025). *Beter dan Sloop* (1st edition). <https://trancity.nl/publicaties/beter-dan-sloop>
- Fianchini, M., & Ferrucci, F. (2018). TURNING EMPTY OFFICE BUILDINGS INTO SUSTAINABLE SOCIAL HOUSING. *The Housing For The Dignity Of Mankind*, 1–10. <https://re.public.polimi.it/bitstream/11311/1053285/1/ID117.pdf>
- Filippidou, F., Nieboer, N., & Visser, H. (2017). Are we moving fast enough? The energy renovation rate of the Dutch non-profit housing using the national energy labelling database. *Energy policy*, 52, 628-638. <https://doi.org/10.1016/j.enpol.2017.07.025>
- Fisher, L. M., Pollakowski, H. O., & Zabel, J. (2009). Amenity-Based Housing Affordability Indexes. *Real Estate Economics*, 37(4), 705–746. <https://doi.org/10.1111/j.1540-6229.2009.00261.x>
- Fraanje, P. J., Ewijk, H., Godoi Bizarro, D., Keijzer, E., Kraaijenbrink, R., Leeuwen, M. V., & Opdrachtgever Stichting, N. M. D. (2021). Onderzoek nadere duiding van de baten en lasten in module D van de Bepalingsmethode milieuprestatie bouwwerken.
- Galster, G. C., & Friedrichs, J. (2015). The Dialectic of Neighborhood Social Mix: Editors' Introduction to the Special Issue. *Housing Studies*, 30(2), 175–191.
<https://doi.org/10.1080/02673037.2015.1035926>
- Glumac, B., & Islam, N. (2020). Housing preferences for adaptive re-use of office and industrial buildings: Demand side. *Sustainable Cities And Society*, 62, 102379.
<https://doi.org/10.1016/j.scs.2020.102379>
- Greco, A. (2024). Energietransities verenigen van tegengestelde eisen met het paradoxperspectief. In *Transformatie naar woningen* (1st edition, p. 219–229). TU Delft Open.
<https://doi.org/10.47982/b9dqze71>
- Greco, A., & Long, T. B. (2022). Towards Sustainable Cities and Communities: Paradoxes of Inclusive Social Housing Strategies. In *WORLD SCIENTIFIC eBooks* (pp. 113–135).
https://doi.org/10.1142/9789811248870_0006
- Gruis, V. (2001). *Financieel-economische grondslagen voor woningcorporaties - Het bepalen van de bedrijfswaarde, risico's en het voorraadbeleid*.
<http://repository.tudelft.nl/islandora/object/uuid%3AAbfef4b3b-e046-485b-9898-30a7362d2953/datastream/OBJ/download>

- Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2014). Tensions in Corporate Sustainability: towards an Integrative framework. *Journal of Business Ethics*, 127(2), 297–316.
<https://doi.org/10.1007/s10551-014-2047-5>
- Hoomans, S. (2019). Elephants in the Boardroom? Sustainable values-based strategic decision-making in a Dutch housing association. [Dissertation (TU Delft), Delft University of Technology]. <https://doi.org/10.4233/uuid:bf0d3c09-5b31-403e-af75-daf9c1fb2b96>
- Jay, J. (2013). Navigating paradox as a mechanism of change and innovation in hybrid organizations. *Academy of management Journal*, 56(1), 137-159.
<https://doi.org/10.5465/AMJ.2010.0772>
- Jiang, L., Hagen-Zanker, A., Kumar, P., & Pritchard, J. (2020). Equity in job accessibility and environmental quality in a segmented housing market: The case of Greater London. *Journal Of Transport Geography*, 90, 102908. <https://doi.org/10.1016/j.jtrangeo.2020.102908>
- Johnston, C. 1994. What is Social Value? A discussion paper. Canberra: Australian Government Publishing Service.
- Jones, S. (2016). Wrestling with the Social Value of Heritage: Problems, Dilemmas and Opportunities. *Journal Of Community Archaeology & Heritage*, 4(1), 21–37.
<https://doi.org/10.1080/20518196.2016.1193996>
- Kaufman, S., Elliott, M., & Shmueli, D. (2003). Frames, Framing and Reframing. *Beyond Intractability*.
- Kendall, S. (1999). Open Building: An Approach to Sustainable Architecture. *Journal Of Urban Technology*, 6(3), 1–16. <https://doi.org/10.1080/10630739983551>
- Khadim, N., Agliata, R., Thaheem, M. J., & Mollo, L. (2023). Whole building circularity indicator: A circular economy assessment framework for promoting circularity and sustainability in buildings and construction. *Building And Environment*, 241, 110498.
<https://doi.org/10.1016/j.buildenv.2023.110498>
- Koolma, H. M., & Veenstra, J. (2014). Het effect van schaal en fusie bij woningcorporaties. In J. Veuger (editor), *Barometer Maatschappelijk Vastgoed Maatschappelijk Verantwoord Ondernemen* (blz. 295-300). Van Gorcum. <http://www.abcnova.nl/wp-content/uploads/2014/11/Boek-Maatschappelijk-Vastgoed-2014.pdf>
- Kowaltowski, D. C., & Granja, A. D. (2011). The concept of desired value as a stimulus for change in social housing in Brazil. *Habitat International*, 35(3), 435–446.
<https://doi.org/10.1016/j.habitatint.2010.12.002>
- Kramers, B. (2018). *Living at the office: A study on the external effects of the transformation of office space into housing on local housing markets* [master thesis, Rijksuniversiteit Groningen].
<https://frw.studenttheses.ub.rug.nl/1080/>
- Kraniotis, L., & Kraniotis, L. (2024, 21 November). *Corporaties gaven 10,5 miljard uit aan verduurzaming en onderhoud woningen*. NOS. <https://nos.nl/artikel/2545313-corporaties-gaven-10-5-miljard-uit-aan-verduurzaming-en-onderhoud-woningen>
- Kurul, E. (2007). A qualitative approach to exploring adaptive re-use processes. *Facilities*, 25(13/14), 554–570. <https://doi.org/10.1108/02632770710822634>

- Lakhani, A., Zeeman, H., Wright, C. J., Watling, D. P., Smith, D., & Islam, R. (2019). Stakeholder priorities for inclusive accessible housing: A systematic review and multicriteria decision analysis. *Journal Of Multi-Criteria Decision Analysis*, 27(1–2), 5–19.
<https://doi.org/10.1002/mcda.1689>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. In. Newbury Park, CA: Sage Publications.
- Luffman, J. (2006). *Measuring housing affordability* (pp. 75-001). Statistics Canada.
- Mackay, R. (2019). Values-based management and the Burra Charter: 1979, 1999, 2013. In *values in heritage management: emerging approaches and research directions* (1st edition, p 110-126) The Getty conservation institute.
<https://www.getty.edu/publications/heritagemanagement/part-two/8/>
- Ministerie van Infrastructuur en Waterstaat. (2024, January 16). *Bouwen en verwerven maatschappelijk en bedrijfsmatig vastgoed*. *Vastgoed* | Inspectie Leefomgeving en Transport (ILT). <https://www.ilent.nl/onderwerpen/vastgoed/bouwen-en-verwerven-maatschappelijk-en-bedrijfsmatig-vastgoed>
- Ministerie van Infrastructuur en Waterstaat. (2024b, 26 February). *Nederland circulair in 2050*. Circulaire Economie | Rijksoverheid.nl. <https://www.rijksoverheid.nl/onderwerpen/circulaire-economie/nederland-circulair-in-2050>
- Ministerie van Volkshuisvesting en Ruimtelijke Ordening. (2024, 11 December). *Woontop: concrete afspraken voor 100.000 nieuwe woningen per jaar*. Nieuwsbericht | Rijksoverheid.nl. <https://www.rijksoverheid.nl/actueel/nieuws/2024/12/11/woontop-concrete-afspraken-voor-100.000-nieuwe-woningen-per-jaar>
- Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2022). *Transformatie in cijfers: heden, verleden en perspectief*. Rapport | Rijksoverheid.nl. <https://www.rijksoverheid.nl/documenten/rapporten/2022/06/10/transformatie-in-cijfers-heden-verleden-en-perspectief>
- NOS. (2024a, 1 March). Al jaren voorspeld, maar nu pas zichtbaar: meer kantoren staan leeg. <https://nos.nl/artikel/2510939-al-jaren-voorspeld-maar-nu-pas-zichtbaar-meer-kantoren-staan-leeg>
- NOS. (2024b, 17 December). *Kamer gaat in tegen plan Keijzer: toch nestkastjes in nieuwbouwhuizen*. <https://nos.nl/artikel/2548687-kamer-gaat-in-tegen-plan-keijzer-toch-nestkastjes-in-nieuwbouwhuizen>
- Nyaupane, G. P., & Timothy, D. J. (2009). Heritage awareness and appreciation among community residents: perspectives from Arizona, USA. *International Journal Of Heritage Studies*, 16(3), 225–239. <https://doi.org/10.1080/13527251003620776>
- Nypan, T. (2006). Cultural heritage monuments and historic buildings as value generators in a post-industrial economy. With emphasis on exploring the role of the sector as economic driver. https://ra.braze.unit.no/ra-xmlui/bitstream/handle/11250/175613/nypan_cultural_heritage.pdf?sequence=1
- Pacheco, E., Parrott, E., Oktari, R. S., & Joffe, H. (2022). How schools can aid children’s resilience in disaster settings: The contribution of place attachment, sense of place and social

representations theories. *Frontiers in Psychology*, 13.

<https://doi.org/10.3389/fpsyg.2022.1004022>

- Pape, R., Wierikx, A., Nijnsens, J., Alblas, A. A., & Raassens, N. (2025). *Staat van Circulair Ondernemen*.
- Power, A. (2008). Does demolition or refurbishment of old and inefficient homes help to increase our environmental, social and economic viability? *Energy Policy*, 36(12), 4487–4501. <https://doi.org/10.1016/j.enpol.2008.09.022>
- Raisch, S., & Zimmermann, A. (2017). A process perspective on the exploration-exploitation paradox. In W.K. Smith, M.W. Lewis, P. Jarzabkowski & A. Langley (eds.), *The Oxford handbook of organizational paradox* (p. 315). Oxford University Press <https://doi.org/10.1093/oxfordhb/9780198754428.013.17>
- Remøy, H., & Boelhouwer, P. (2024). De markt voor transformatie naar woningen. In *transformatie naar woningen* (1st edition, Vol. 1, p. 11–20).
- Remøy, H., van Bortel, G., Heurkens, E., & van Venrooij, R. (Eds.) (2024). *Transformatie naar Woningen*. Delft University of Technology, Faculteit Bouwkunde. <https://doi.org/10.47982/b9dqze71>
- Remøy, H., & Van Der Voordt, T. (2014). Adaptive reuse of office buildings into housing: opportunities and risks. *Building Research & Information*, 42(3), 381–390. <https://doi.org/10.1080/09613218.2014.865922>
- Rensink, E., Weerts, H., Kosian, M., Feiken, H., Smit, B., van Doesburg, J., Groenewoudt, B.J., Lascaris, M., Lauwerier, R.C.G.M., Brounen, F.T.S., Cohen, K.M., van der Heiden, M., Jansen, D., Maas, G.J., Theunissen, E.M., Vreenegoor, E. (2015). *Archeologische Landschappenkaart van Nederland*. Rijksdienst voor het Cultureel Erfgoed.
- Rijksdienst voor Ondernemend Nederland. (2025, 17 July). MilieuPrestatie Gebouwen - MPG. RVO.nl. consulted on 3 December 2025, from <https://www.rvo.nl/onderwerpen/wetten-en-regels-gebouwen/milieuprestatie-gebouwen-mpg>
- Rodrigues, C., & Freire, F. (2021). Environmental impacts and costs of residential building retrofits – What matters? *Sustainable Cities And Society*, 67, 102733. <https://doi.org/10.1016/j.scs.2021.102733>
- Rubin, M., Miron-Spektor, E., & Keller, J. (2023). Unlocking creative tensions with a paradox approach. In R. Reither-Palon & H. Hunter (eds.), *Handbook of organizational Creativity* (pp. 125-145). Cambridge: Academic Press. <https://doi.org/10.1016/B978-0-323-91840-4.00006-2>
- Rumrill, Jr., P. D., & Fitzgerald, S. M. (2001). Using narrative literature reviews to build a scientific knowledge base. *WORK*, 16(2), 165-170. <https://doi.org/10.3233/WOR-2001-00173>
- RVO (2022). RVO.nl. <https://www.rvo.nl/onderwerpen/trl>
- RVO (2024). RVO.nl. <https://www.rvo.nl/onderwerpen/wetten-en-regels-gebouwen/milieuprestatie-gebouwen-mpg> consulted on 1-4-2025
- Salas, E., Rosen, M. A., & DiazGranados, D. (2009). Expertise-Based Intuition and Decision Making in Organizations. *Journal Of Management*, 36(4), 941–973. <https://doi.org/10.1177/0149206309350084>

- Savelli, I., & Morstyn, T. (2021). Better together: Harnessing social relationships in smart energy communities. *Energy Research & Social Science*, 78, 102125.
<https://doi.org/10.1016/j.erss.2021.102125>
- Smith, W.k., & Besharov M.L. (2019). Bowing before dual gods: How structured flexibility sustains organizational hybridity. *Administrative science Quarterly*, 64(1), 1-44.
<https://doi.org/10.1177/0001839217750826>
- Smith, W.K., Gonin, M. & Besharov, M.L. (2013). Managing social-business tensions: A review and research agenda for social enterprise. *Business Ethics Quarterly*, 23(3), 407-442
<https://doi.org/10.5840/beq201323327>
- Tencer, T., Malyková, D., & Milo, P. (2024). Geophysical Survey as Part of Rescue Archaeological Excavation on Large Construction Projects—Case Study: Road I/16 Slaný–Velvary (Czech Republic). *Remote Sensing*, 16(11), 1959. <https://doi.org/10.3390/rs16111959>
- Van Bortel, G. (2024). De rol van woning-corporaties bij de transformatie naar woningen. In *Transformatie naar woningen* (1st edition, p. 293–304). TU Delft Open.
<https://doi.org/10.47982/b9dqze71>
- Vugts, Y., Ockhuijsen, R., Vugts, Y., & Ockhuijsen, R. (2023, 24 april). *Kabinet vreest nieuwe natuurplannen van EU, bouw mogelijk nog meer 'op slot'*. NOS.
<https://nos.nl/nieuwsuur/collectie/13901/artikel/2472674-kabinet-vreest-nieuwe-natuurplannen-van-eu-bouw-mogelijk-nog-meer-op-slot>
- Yan, R., & Zhang, Y. (2022). The Introduction of NPV and IRR. *Advances in Economics, Business And Management Research/Advances in Economics, Business And Management Research*.
<https://doi.org/10.2991/aebmr.k.220307.241>
- Zeeuw, W. (2018). *Zo werkt gebiedsontwikkeling: handboek voor studie en praktijk*.

Appendices

Appendix 1. longlist cases

Longlist transformation projects for profit

Project	Developer	City	Transformed from:	Layers re-used	GFA	Type housing	Target group	access
Metamorfose	Steenvlinders	Rijswijk	Office	2	<10.000m ²	80-195m ²	Middle/high income	High chance
De Kroon	Dura Vermeer	Zoetermeer	Office	3	<5.000m ²	80-220m ²	High income	t.b.d.
Hillside	B-right	Amsterdam	Office	2	<5.000m ²	<50m ²	social	t.b.d.
Narita	Maarsen groep	Amsterdam	Office	1,5?	20.000m ²	50-120m ²	30/40/30	High chance
Parkstaete	Van Wijnen	Leerdam	Office	4	<5.000m ²	20-52m ²	Middle income	t.b.d.
't Goylaan 125	Van Wijnen	Utrecht	Office	2,5	<5.000m ²	82-92m ²	Middle/high income	t.b.d.
Gele Scheikunde	Amvest	Delft	Faculty/lab	2	>20.000m ²		mix	High chance
Rotterdamsche school	Vorm	Rotterdam	School	3	<5.000m ²		High income	t.b.d.
De Entree	BAM wonen	Leiderdorp	Office/lab	2,5	6.910m ²		Social & care	t.b.d.
Witbautstraat	BAM wonen	Amsterdam	Office	2	16.100m ²	35-88m ²	mix	t.b.d.
Het oude belastingkantoor	explorius	Apeldoorn	Office	3	<10.000m ²		High income & care	t.b.d.
Voormalig hudsonbay pand	3w real estate	Haarlem	Shop	3	18.000m ²		High income	t.b.d.
De Baronie	Green real estate	Alphen aan de Rijn	Factory	3	>20.000m ²		Middle/high income	t.b.d.
Marktpllein	Segesta group	Hoofddorp	Office	3?	<5.000m ²		Middle/high income	t.b.d.
groenhof	Segesta group	Amstelveen	Office	3?	<5.000m ²		high income	t.b.d.

Hof in de Egelantier	Lingotto	Haarlem	hospital	3	<10.000m ²		High income/hotel	t.b.d.
Het museumkwartier	BPD	Vlaardingen	Fishing centre	3	>20.000m ²	45-144m ²	Middle/high income	t.b.d.
Karzernekwartier Crailo	BPD	Gooise meren	barracks	3	>20.000m ²		33/28/39	t.b.d.
De Kerverij	Ingenious group	Veenendaal	factory	2,5	<5.000m ²		unknown	t.b.d.
Seahorse	vanwonen	Hengelo	factory	2	<10.000m ²		unknown	t.b.d.

Longlist transformation projects non-profit

Project	Developer	City	Transformed from:	Layers re-used	GFA	Type housing	Target group	access
Helmerstraat	Rochdale	Amsterdam	School	3	<1.000m ²	20-25m ²	social	yes
Zoetelaarspassage	De Alliantie ontwikkeling	Almere	Shopping centre	3	~5.000m ²	40-50m ²	social	yes
Lucentterrein	De alliantie ontwikkeling	Hilversum	Office	2	<10.000m ²	m ²	social	High chance
De Gravin	Woonstad	Rotterdam	Office	2	<5.000m ²	m ²	social	t.b.d.
Europalaan	Stichting Woonbedrijf SWS.Hhvl	Eindhoven	Office	3	<5.000m ²		social	t.b.d.
De Cajuit	Woonbedrijf	Helmond	School	3	<5.000m ²		Social	t.b.d.
Kootwijkstraat	Woonbedrijf	Eindhoven	School	3	<5.000m ²		care	t.b.d.
Barrierweg	Woonbedrijf	Eindhoven	School	3	<5.000m ²		Social	t.b.d.

Appendix 2. Data management plan

A Data Management Plan created using DMPonline

Title: Master thesis MBE transforming buildings into housing for housing associations in the Netherlands with interviews and expert panel

Creator: Peter Pápai

Affiliation: Delft University of Technology

Template: TU Delft Data Management Plan template (2025)

Project abstract:

Even though there is a housing shortage in the Netherlands one of the possible solutions, the transformations of non-residential buildings into housing, is on the decline (Centraal Bureau voor de Statistiek 2023). Even when the office market is oversaturated (Remøy et al. 2024). At the same time the government is looking to housing associations to create the much-needed affordable housing, but they find it hard to find land to develop (Remøy et al. 2024). Transformations of already existing building can be sustainable solution to that problem. Surprisingly there is a research gap on the role of housing associations regarding transformations. There is literature on both housing associations and literature, but not much that combines these two concepts. In the literature transformations are realised by developers. But there are differences between housing associations and other developers. This is mostly reflected in their valuation of projects (Hoomans, 2019).

Therefore, this research proposal will focus on the differences in values between nonprofit organisations and for-profit organisations and how they compare. This research proposal will propose a qualitative research method. The instruments in this research used are interviews and focus group discussions. The interviews are used to create an understanding of both the assessment process and the prioritisation of different values regarding transformation projects. While focus group discussion with a heterogeneous group will set the values of the housing associations in regards to transformations.

Thus, making it possible to create a valuation tool for housing associations when considering a transformation project. This would in turn possibly increase the number of transformations by housing associations, but also give housing associations a better grip on what transformations entail so that they can make a balanced decision.

ID: 179262

Start date: 11-06-2025

End date: 07-11-2025

Last modified: 30-05-2025

Master thesis MBE transforming buildings into housing for housing associations in the Netherlands with interviews and expert panel

0. Administrative questions

1. Provide the name of the data management support staff consulted during the preparation of this plan and the date of consultation. Please also mention if you consulted any other support staff.

Janine, Strandberg, Data Steward at the Faculty of Architecture and the Built Environment, has

2. Is TU Delft the lead institution for this project?

Yes, the only institution involved

I. Data/code description and collection or re-use

3. Provide a general description of the types of data/code you will be working with, including any re-used data/code.

Type of data/code	File format(s)	How will data/code be collected/generated? <i>For re-used data/code: what are the sources and terms of use?</i>	Purpose of processing	Storage location	Who will have access to the data/code?
Anonymised transcripts of the semi structured interviews	.mp3	Case study	to understand the scope of the case study and the underlying decision-making process	TU Delft One Drive	Peter Pápai, Gerard van Bortel & Hilde Remøy
Documentation of projects containing: assessment tools & investment proposals	PDF .xlsx	Case study	to understand the scope of the case study and the underlying decision-making process	TU Delft One Drive	Peter Pápai, Gerard van Bortel & Hilde Remøy
Anonymised transcriptions of the focus group discussions	.mp3	focus group discussion/expert panel	validating earlier findings, to capture the expert's opinion regarding decision making and their experiences and attitudes regarding transformations into housing	External recording device (temporary storage) + TU Delft (primary storage)	Peter Pápai, Gerard van Bortel & Hilde Remøy

II. Storage and backup during the research process

4. How much data/code storage will you require during the project lifetime?

- < 250 GB

5. Where will the data/code be stored and backed-up during the project lifetime? (Select all that apply.)

- TU Delft OneDrive

III. Data/code documentation

6. What documentation will accompany data/code? (Select all that apply.)

- Data – Methodology of data collection
- Metadata – I will adhere to the metadata standards used by the data repository where the data will be shared (see section V)

IV. Legal and ethical requirements, code of conducts

7. Does your research involve human subjects or third-party datasets collected from human participants?

If you are working with a human subject(s), you will need to obtain the HREC approval for your research project.

- Yes – please provide details in the additional information box below

I intend to apply for ethical approval from the Human Research Ethics Committee, but have not yet done so.

8. Will you work with personal data? (This is information about an identified or identifiable natural person, either for research or project administration purposes.)

- Yes

Participants may be connected to the research because they can be connected to the case studies with which they are affiliated with.

9. Will you work with any other types of confidential or classified data or code as listed below? (Select all that apply and provide additional details below.)

If you are not sure which option to select, ask your [Faculty Data Steward](#) for advice.

- Yes, data which could lead to reputation/brand damage (for example, animal research, climate change)
- Yes, confidential data received from commercial, or other external partners

10. How will ownership of the data and intellectual property rights to the data be managed?

For projects involving commercially-sensitive research or research involving third parties, seek advice of your [Faculty Contract Manager](#) when answering this question.

This is an internal TUD MSc thesis project.

11. Which personal data or data from human participants do you work with? (Select all that apply.)

- Other types of personal data or other data from human participants – please provide details below
- Proof of consent (such as signed consent materials which contain name and signature)
- Audio recordings
- Telephone number, email addresses and/or other addresses as contact details for administrative purposes
- Names as contact details for administrative purposes

Because of the nature of semi structured interviews, it is possible that participants will share personal information unintentionally during 'free text fields' during the interview.

12. Please list the categories of data subjects and their geographical location.

The interview participants are professionals in the domain of transforming existing real estate into housing. All participants are located in the Netherlands.

The participants of the focus group are professionals in the domain of transforming existing real estate into housing. All participants are located in the Netherlands.

13. Will you be receiving personal data from or transferring personal data to third parties (groups of individuals or organisations)?

- No

16. What are the legal grounds for personal data processing?

- Informed consent

17. Please describe the informed consent procedure you will follow below.

The researcher will inform the potential participants about the goals and procedures of the research project. The researcher will also inform them about the personal data that are being processed and for what purpose. This information will be provided to the potential participants by providing a digital copy of the information will be emailed to the participants before the interview and/or focus group discussion.

All participants will be asked for their consent for taking part in the study and for data processing by signing a digital informed consent form before the start of the interview and the focus group discussion.

18. Where will you store the physical/digital signed consent forms or other types of proof of consent (such as recording of verbal consent)?

Same storage solutions as explained in question 5

19. Does the processing of the personal data result in a high risk to the data subjects? (Select all that apply.)

If the processing of the personal data results in a high risk to the data subjects, it is required to perform a [Data Protection Impact Assessment \(DPIA\)](#). In order to determine if there is a high risk for the data subjects, please check if any of the options below that are applicable to the processing of the personal data in your research project.

- ☒ None of the above apply

23. What will happen with the personal data used in the research after the end of the research project?

- ☒ Anonymised or aggregated data will be shared with others

24. For how long will personal research data (including pseudonymised data) be stored?

- Personal data will be deleted at the end of the research project
- 10 years, in accordance with the TU Delft Research Data Framework Policy

25. How will your study participants be asked for their consent for data sharing?

- In the informed consent form: participants are informed that their personal data will be anonymised and that the anonymised dataset is shared publicly

V. Data sharing and long-term preservation

27. Apart from personal data mentioned in question 23, will any other data be publicly shared?

Please provide a list of data/code you are going to share under 'Additional Information'.

- No other data/code can be publicly shared – please explain below why data/code cannot be publicly shared

The documentation that the researcher may receive regarding the case studies will be highly sensitive information of the case studies. These may not be shared with the public as it may harm the image/position of the participants and/or affiliated organisations.

VI. Data management responsibilities and resources

33. If you leave TU Delft (or are unavailable), who is going to be responsible for the data/code resulting from this project?

My supervisor Gerard, van Bortel, tutor, Architecture/Management in the build environment/ Real estate management, with email address g.a.vanbortel@tudelft.nl.

34. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

4TU.ResearchData is able to archive 1TB of data/code per researcher per year free of charge for all TU Delft researchers. We do not expect to exceed this and therefore there are no additional costs of long-term preservation.

35. Which faculty do you belong to?

- Faculty of Architecture and the Built Environment (ABE)

Appendix 3. Consent form interviews

You are being invited to participate in a research study titled: *Finding the balance; Transformations for housing associations in the Netherlands*. This study is being done by Péter János Pápai from the TU Delft for the Master thesis of the master program Management of the Built Environment.

The purpose of this research study is to come up with a concept to standardise a valuation method of transformation of buildings into housing for housing associations in the Netherlands, and will take you approximately 60 minutes to complete. The data will be used for research publication. We will be asked to discuss the importance of different values in the realisation of transformation projects and how to find a balance between these values.

As with any collection of data the risk of a breach is always possible. To the best of our ability your answers in this study will remain confidential. We will minimize any risks by **translating** the recordings of the focus group discussion into anonymous transcripts and eliminating any personal information from documents that are filled in by hand during the discussion. Audio recordings will be deleted and handwritten documents are destroyed after anonymization. Data that is collected will be stored anonymously on the secured TU Delft project storage.

Your participation in this study is entirely voluntary **and you can withdraw at any time**. You are free to omit any questions. Submitted data can be removed within 40 days, if requested by the participant or legal representative of the participant.

In case of questions or comments, you can contact the researcher:

Péter Pápai
ppapai@tudelft.nl

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
A: GENERAL AGREEMENT – RESEARCH GOALS, PARTICIPANT TASKS AND VOLUNTARY PARTICIPATION		
1. I have read and understood the study information dated 04/06/2025, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	☐	☐
2. I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.	☐	☐
3. I understand that taking part in the study involves: An interview being audio-recorded. The recordings will be transferred into an anonymized transcript that will be used for publication. Any possible personal data on those cards will be made unrecognisable	☐	☐
4. I understand that the study will end after the research is published	☐	☐
B: POTENTIAL RISKS OF PARTICIPATING (INCLUDING DATA PROTECTION)		
5. I understand that taking part in the study involves the following risk of mental discomfort.	☐	☐
6. I understand that taking part in the study also involves collecting specific personally identifiable information (PII): name, position with my respective field and affiliated housing; and associated personally identifiable research data (PIRD): quotes from the transcripts with the potential risk of my identity being revealed.	☐	☐
7. I understand that the following steps will be taken to minimise the threat of a data breach, and protect my identity in the event of such a breach by secure data storage and anonymization of the transcripts of the discussions.	☐	☐
8. I understand that personal information collected about me that can identify me, such as my name, gender and position that will not be shared beyond the study team.	☐	☐
9. I understand that the (identifiable) personal data I provide will be destroyed after the research has been published	☐	☐
C: RESEARCH PUBLICATION, DISSEMINATION AND APPLICATION		
10. I understand that after the research study the de-identified information I provide will be used for publications and the use of quotations within those publications.	☐	☐
11. I agree that my responses, views or other input can be quoted anonymously in research outputs	☐	☐
D: (LONGTERM) DATA STORAGE, ACCESS AND REUSE		
13. I give permission for the de-identified transcript that I provide to be archived in TU.ResearchData repository so it can be used for future research and learning.	☐	☐

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
14. I understand that access to this repository is restricted and may only be used when credited under the same licence. The data in the repository will be deleted after 10 years.	☐	☐

Signatures

Name of participant [printed] Signature Date

I, as researcher, have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

Researcher name [printed] Signature Date

Study contact details for further information:

Péter Pápai

ppapai@tudelft.nl

Appendix 4. Consent form expert panel

You are being invited to participate in a research study titled: *Finding the balance; Transformations for housing associations in the Netherlands* . This study is being done by Péter János Pápai from the TU Delft for the Master thesis of the master program Management of the Built Environment.

The purpose of this research study is to come up with a concept to standardise a valuation method of transformation of buildings into housing for housing associations in the Netherlands, and will take you approximately 120 minutes to complete. The data will be used for research publication. We will be asked to discuss the importance of different values in the realisation of transformation projects and how to find a balance between these values.

As with any collection of data the risk of a breach is always possible. To the best of our ability your answers in this study will remain confidential. We will minimize any risks by translating the recordings of the focus group discussion into anonymous transcripts and eliminating any personal information from documents that are filled in by hand during the discussion. Audio recordings will be deleted and handwritten documents are destroyed after anonymization. Data that is collected will be stored anonymously on the secured TU Delft project storage.

Your participation in this study is entirely voluntary **and you can withdraw at any time**. You are free to omit any questions. Submitted data can be removed within 40 days, if requested by the participant or legal representative of the participant.

In case of questions or comments, you can contact the researcher:

Péter Pápai
ppapai@tudelft.nl

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
A: GENERAL AGREEMENT – RESEARCH GOALS, PARTICIPANT TASKS AND VOLUNTARY PARTICIPATION		
1. I have read and understood the study information dated 04/06/2025, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	☐	☐
2. I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.	☐	☐
3. I understand that taking part in the study involves: An expert panel that is being audio-recorded. The recordings will be transferred into an anonymized transcript that will be used for publication. Any possible personal data on those cards will be made unrecognisable	☐	☐
4. I understand that the study will end after the research is published	☐	☐
B: POTENTIAL RISKS OF PARTICIPATING (INCLUDING DATA PROTECTION)		
5. I understand that taking part in the study involves the following risk of mental discomfort.	☐	☐
6. I understand that taking part in the study also involves collecting specific personally identifiable information (PII): name, position with my respective field and affiliated housing; and associated personally identifiable research data (PIRD): quotes from the transcripts with the potential risk of my identity being revealed.	☐	☐
7. I understand that the following steps will be taken to minimise the threat of a data breach, and protect my identity in the event of such a breach by secure data storage and anonymization of the transcripts of the discussions.	☐	☐
8. I understand that personal information collected about me that can identify me, such as my name, gender and position that will not be shared beyond the study team.	☐	☐
9. I understand that the (identifiable) personal data I provide will be destroyed after the research has been published	☐	☐
C: RESEARCH PUBLICATION, DISSEMINATION AND APPLICATION		
10. I understand that after the research study the de-identified information I provide will be used for publications and the use of quotations within those publications.	☐	☐
11. I agree that my responses, views or other input can be quoted anonymously in research outputs	☐	☐
12. I agree that my real name can be used for quotes in research outputs	☐	☐
D: (LONGTERM) DATA STORAGE, ACCESS AND REUSE		

PLEASE TICK THE APPROPRIATE BOXES	Yes	No
13. I give permission for the de-identified transcript that I provide to be archived in TU.ResearchData repository so it can be used for future research and learning.	☐	☐
14. I understand that access to this repository is restricted and may only be used when credited under the same licence. The data in the repository will be deleted after 10 years.	☐	☐

Signatures

Name of participant [printed]

Signature

Date

I, as researcher, have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

Researcher name [printed]

Signature

Date

Study contact details for further information:

Péter Pápai

ppapai@tudelft.nl

Appendix 5. Interview protocol

Protocol interview

Introduction and Overview:

- Greet the participant and introduce yourself.
- Provide a brief explanation of the research project and its purpose
- Ask for informed consent by explaining the confidentiality and anonymity of the interview and requesting permission to record the session.
- Explain the semi-structured format, where you will ask open-ended questions to allow them to share their experiences and insights freely.
- Begin with some basic background questions to ease into the conversation.

Introduction interview script:

Hallo [**Participants name**], bedankt dat je/u wilt participeren voor dit onderzoek. Ik ga een aantal vragen stellen over het transformeren naar woningen in relatie tot [**case study**]. Het aantal vragen heb ik voor mezelf logisch verdeeld over verschillende onderwerpen. Maar daaraan hoeven we ons niet aan te houden. Vertel vooral over de aspecten die voor jou van belang waren en mogelijk zal ik daarover dan verder doorvragen. Ik zal beginnen met een paar introducerende vragen over het project en dan gaan we langzaam dieper in tot de stof. Ik ga ook proberen het binnen een uur te houden maar ik ga er niet het gesprek stopzetten als daar de ruimte voor is want ik heb waarschijnlijk meer vragen dan zal passen in een uur.

Introduction questions: +/-10min

- Vertel eens wat over het bedrijf en hoe jullie bij transformaties betrokken zijn?
- Hoe zijn jullie bij [**case study**] betrokken geraakt?
- Was transformatie van het pand altijd het plan of waren er ook plannen om het volledig/deels te slopen?
- Welke significante ontwerpkeuzes zijn gemaakt tijdens het realiseren van het project?
- Hebben jullie het project ontworpen voor bepaalde doelgroepen?

Questions about people +/-15min

- Was erfgoed een belangrijk onderdeel van dit project en hoe zijn jullie ermee omgegaan?
- Welke waarde gaven jullie aan het erfgoed?
- Hoe paste jullie het ontwerp aan voor bepaalde doelgroepen?
- Hoe past het [**case study**] in de buurt?/hoe relateert het project zich tot de rest van de stad?
- Hoe is het project ontsloten met de rest van de stad?
- Hoe promoten hebben jullie

Questions about planet +/-15min

- Was het reguleren van het (bouw)afval onderdeel van het project? Emvi score
- Hoeveel van het gebouw was hergebruikt?

- Was het project gestuurd op energiegebruik van de woning of werd er ontworpen naar een gewenst energie label? A(+)
- Heeft stikstof/hebben stikstof emissies invloed gehad op het verloop van het project?
- Hoe heeft dit project bijgedragen aan de ecologische waarde van de stad? -familie Vossen!
- Zijn er maatregelen genomen voor bijzondere omstandigheden zoals bijvoorbeeld hittestress, geluidsoverlast of overstromingsgevaar? En hoe is daarmee omgegaan? Nestgeluid

Questions about profit +/-15min

- In hoeverre zijn de stichtingskosten anders bij een transformatie project dan bij nieuwbouw?
- In hoeverre zijn de bouwkosten anders dan bij nieuwbouw? 1700/1900€/m2BVO bouwkosten!
- Welke risico's kwamen op bij **[case study]**?
- Welke mitigerende maatregelen
- Hoe werden de financiële ijkpunten bepaald? En hoe werden deze behaald? Grex vs opstal/kavelontwikkeling (opbrengstenniveau) Stiko en bar,

Questions about missing values +/-10min

Script concluding questions: We gaan het interview afsluiten met nog een paar afsluitende vragen.

- Ik heb naar verschillende waarden gevraagd, zijn er waarden die aan bod kwamen tijdens het project maar nu tijdens het interview niet naar voren zijn gekomen?
- Ik heb nu vooral vragen gesteld die passen in het bekende raamwerk van people, planet and profit. Zijn er waarden voor vastgoed waarvan jij/u denkt dat die niet binnen deze drie domeinen vallen?
- Wilt u iets vertellen over het project dat nog niet aan bod is gekomen?

Script for concluding the interview: Dat brengt ons aan het einde van dit interview. Dank u/je voor het delen van je bevindingen binnen deze casus en het bijdragen aan mijn thesis. Heb je/heeft u nog vragen en of opmerkingen voor mij of het onderzoek?

Appendix 6. expert panel protocol

Protocol expertpanel

Beste mensen. Ik ben blij dat jullie tijd hebben kunnen vrijmaken voor dit expert panel t.b.v. mijn afstuderen. Voor sommige onder jullie is mijn thesis al bekend maar ik benoem het alsnog even. Mijn afstuderen gaat over de verschillende waardes die woningcorporaties ertoe zetten om transformatiebouw te ontwikkelen. Ik heb in een vorige fase van het onderzoek enkele experts geïnterviewd en daaruit enige bevindingen uit gehaald. Voor het expertpanel heb ik sommige stellingen uit de interviews genomen. Welke ik jullie laat beoordelen om te toetsen of mijn voorgaand onderzoek ook nog enig hout snijdt.

Nu nog wat algemene opmerkingen, deze vergadering wordt opgenomen zodat ik het terug kan kijken. Tevens heb ik dit expertpanel ingedeeld in 4 delen. Deel één is de introductie ronde zodat de verschillende participanten elkaar kunnen leren kennen. In de delen twee tot en met vier gaan over de drie verschillende domeinen van people, planet en profit. Afhankelijk hoelang we zullen spreken over de verschillende domeinen zullen we ergens tussendoor een pauze hebben. Ik hou me zoveel mogelijk afzijdig van het gesprek en tracht vooral voor te zitten.

Als geen verdere vragen zijn dan wil ik graag beginnen met de introductie ronde. We maken een rondje op alfabetische volgorde van het des betreffende bedrijf. Dus we beginnen met de alliantie, dan Republiq, Rochdale en als laatste SkaaL. In de introductie wil ik voornamelijk wat je werkzaamheden zijn en eventuele ervaringen met transformatiebouw zowel academisch als professioneel.

Deel één People

Het domein people gaat er vooral over hoe bouwen voor een bepaalde doelgroep of mensen in het algemeen een drijfveer kan zijn in de realisatie van nieuwe ontwikkelingen, waaronder transformatiebouw. Ik ga een stelling noemen en daaronder een maar redenen, benoem gerust of je het eens bent met de stelling en of de reden en voeg gerust zelf ook redenen toe. Dit mag in overleg met elkaar.

- Locatie is de voornaamste reden voor woningcorporaties om te transformeren, omdat:
 - o Transformaties geven toegang tot nieuwe wijken (wijken waarin de woningcorporatie nog niet actief is)
 - o Het woningcorporaties de mogelijkheid geeft om de samenstelling van de buurt te verbeteren zonder bestaande bewoners te moeten verhuizen
- Erfgoed wordt enkel gewaardeerd zonder strikte regelgeving, want:
 - o Het verhoogd alleen maar de bouwkosten
 - o Maakt het onmogelijk om een gebouw goed te isoleren
 - o De regelgeving werkt vertragend

Deel twee Planet

Het domein planet gaat er vooral over hoe bouwen met een zo veel mogelijk ingeperkte impact op het milieu een drijfveer kan zijn in de realisatie van nieuwe ontwikkelingen, waaronder transformatiebouw. We vervolgen netzoals bij People

- Ecologie wordt door woningcorporaties niet gezien als een waarde.
 - o Drijft alleen maar de bouwkosten op
 - o Voegt over het algemeen geen gebruikswaarde toe voor de bewoners
- Uit een puur duurzaamheidsperspectief gezien zijn woningcorporaties niet de beste partij om te transformeren.
 - o Woningcorporaties hebben al te veel taken
 - o Transformaties zijn duur en er is geen kapitaal ervoor
- Transformatiebouw op zichzelf is duurzaam genoeg verdere duurzaamheidsoverwegingen zijn niet nodig.
- Woningcorporaties moeten kleinere woningen (+/- 30m² GO) gaan bouwen wanneer ze transformeren
 - o Kleinere vloeroppervlakte betekend ook minder bouwkosten per woning
 - o Kleinere huizen zijn duurzamer omdat energieverbruik lager is
 - o Kleinere woningen zijn betaalbaarder voor de huurder
 - o Zo kunnen veel woningen gerealiseerd worden op een begeerde locatie

Pauze

Deel drie profit

Het domein profit gaat er vooral over hoe winstmaximalisatie een drijfveer kan zijn in de realisatie van nieuwe ontwikkelingen, waaronder transformatiebouw. We vervolgen netzoals voorheen.

- Stichtingskosten is de belangrijkste waarde binnen het domein profit voor nieuwe ontwikkelingen van woningcorporaties.
 - o Huuropbrengsten staan meestal al op voorhand vast
 - o In de stichtingskosten valt het meest te sturen
- Voor transformatiebouw zijn de bouwkosten geen drijfveer, omdat:
 - o Bouwkosten gebruikelijk niet lager uitvallen dan sloop-nieuwbouw.
- Transformatiebouw is tijdefficiënt
 - o Omdat je voorbereidend werk al kan doen terwijl het gebouw nog wordt geëxploiteerd
 - o Omdat de bouwtijd korter is dan bij sloop-nieuwbouw

Deel vier buiten de domeinen/imago

- Het behouden/verbeteren van het imago van woningcorporaties is een drijfveer voor transformatiebouw.
 - o Omdat het laat zien dat
- Een goede relatie met de gemeente mag wat kosten
 - o Omdat het zich weer terugbetaald
 - o Omdat Woningcorporaties dan meer/beter betrokken raken bij potentiële nieuwe ontwikkelingen

- Als de keuze voor transformatie eenmaal is gemaakt dan staat die keuze vast.
 - Omdat je dan al te veel kosten hebt gemaakt en het ontwerp aanpassen nog meer kost
 - Omdat de keuze al voor je was beslist en die niet meer gaat bevragen.