

# **JUSTIFICATION FOR SETTING UP AND CONTINUING ENERGY PROJECTS**

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## TABLE OF CONTENTS

1.	Research layout.....	5
1.1.	Introduction.....	5
1.2.	Context .....	5
1.2.1	Housing costs for Dutch tenants.....	5
1.2.2	Affordability of housing for Dutch tenants.....	7
1.3.	Problem Definition .....	8
2.	Research Design.....	11
2.1.	Type of research .....	11
2.2.	Research Design.....	12
2.3.	Data collection.....	13
2.3.1	Literature Survey and Analysis.....	13
2.3.2	Open interviews with stakeholders .....	13
2.3.3	Expertpanel .....	14
3.	The housing association.....	15
3.1.	Background .....	15
3.2.	Policy framework, Tasks and Corporate strategy.....	16
3.3.	Social enterprise .....	19
3.4.	Quasi-Market and Hybrid organisation .....	20
3.5.	Conclusion .....	21
4.	Investments in the housing stock by associations.....	23
4.1.	Stock policy & Management.....	23
4.2.	Financing.....	24
4.3.	Return .....	25
4.3.1	Financial return .....	26
4.3.2	Social return .....	26
4.4.	Conclusion .....	27
5.	Investments in the energetic quality of the existing housing stock by associations.....	29
5.1.	Planning of field research .....	29
5.2.	Summary of field nresearch results.....	31
5.2.1	What are the reasons for an association (not) investing in the energetic quality of the housing stock? .....	31
5.2.2	What are the objectives in terms of improving the energetic quality of existing homes? .....	32
5.2.3	How will the housing association improve the energetic quality of homes?.....	34
5.3.	Conclusion of field research results .....	35
5.3.1	Reasons for an association (not) investing in the energetic quality of the housing stock.....	35
5.3.2	Objectives in terms of improving the energetic quality of existing homes.....	35
5.3.3	Operational processes to improving the energetic quality of homes .....	35
5.4.	Conclusion diagnosis phase .....	36

6.	Design of a business case.....	37
6.1.	Definitions and objectives of a business case .....	37
6.1.1	Prince2 .....	37
6.1.2	Marty Schmidt.....	38
6.1.3	Dan and Brandon Remenyi .....	38
6.1.4	Business case relevant for this research.....	39
6.2.	Framework of a business case.....	40
7.	Business Case .....	43
7.1.	Business Outcome .....	44
7.1.1	Introduction .....	44
7.1.2	Method .....	45
7.1.3	Business Outcome Statement.....	51
7.2.	Strategic Alignment .....	52
7.2.1	Introduction .....	52
7.2.2	Method .....	52
7.2.3	Strategic Alignment Statement.....	53
7.3.	Stakeholders .....	54
7.3.1	Introduction .....	54
7.3.2	Method .....	55
7.3.3	Stakeholder Statement .....	56
7.4.	Technology Assessment .....	58
7.4.1	Introduction .....	58
7.4.2	Method .....	58
7.4.3	Technology Statement .....	59
7.5.	Project Risk .....	60
7.5.1	Introduction .....	60
7.5.2	Method .....	61
7.5.3	Risk Statement .....	62
7.6.	Expert Validation .....	63
7.7.	Conclusion .....	63
8.	Final conclusions & recommendations.....	65
8.1.	Final conclusion .....	65
8.2.	Recommendations.....	67
	References.....	69
	Apendices .....	73
	Appendix 1: Research model .....	73
	Appendix 2: List of partners .....	74
	Appendix 3: Interview Reports .....	75
	Appendix 4: System Dynamics Model .....	88
	Appendix 5: Symbols and elements of System Dynamics Model .....	89

## 1. RESEARCH LAYOUT

### 1.1. INTRODUCTION

This study is conducted as final project of the masterprogram Construction Management and Engineering at the Eindhoven University of Technology. This research is performed with the support of Stek.nu. In addition, this research is part of the KENWIB-project, which stands for knowledge cluster energy neutral living in Brainport.

#### *STEK.NU*

STEK.NU is an association for property development, founded by housing association Kleinemeerij from Rosmalen. STEK.NU is a virtual organization of different professionals working together to develop non-commercial real estate projects commissioned by housing associations and healthcare institutions.

#### *KENWIB*

Within KENWIB-project knowledge on energy-neutral housing is developed and shared. The development of knowledge is done by graduate students of the Eindhoven University of Technology. The students graduate on relevant issues, and get the support of coaches from regional companies and government agencies.

### 1.2. CONTEXT

This paragraph describes the context of this graduation research. First of all, the housing costs for Dutch tenants will be described. This is followed by a definition of housing costs and the development of housing costs during the past decade. Then the policy and the measures relating to the affordability of housing will be described.

#### 1.2.1 HOUSING COSTS FOR DUTCH TENANTS

The term 'housing costs' has not been unambiguously defined in scientific publications. In scientific research, the term housing costs is used in the context of costs incurred by the consumer for housing (Kullberg, 1991). The definition van 'housing costs', that is used by the Dutch Central Office for Statistics (*'Centraal Bureau voor de Statistiek (CBS)'*) and Dutch Ministry of Housing, Spatial Planning and the Environment (*'Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer (VROM)'*), is often used in research. For example, this definition corresponds with the definition in the below mentioned comparative research into the housing costs in Europe, conducted by Erhan Özdemir and Terry Ward (Özdemir, E. & Ward, T., 2009).

CBS and VROM define housing costs as the sum of the fixed and additional housing costs. The fixed housing costs for tenants consist of the basic rent minus the housing benefit. The additional housing costs consist of the costs for energy and water and the taxes and duties from the Public Bodies Established Under Private Law (*'Openbaar Publiekrechtelijke Lichamen (OPL)'*). Costs that are occasional, such as maintenance to the home, are not included in the additional housing costs in this research (MVRM & CBS, 2010).

On behalf of the European Commission, Erhan Özdemir and Terry Ward have conducted international comparative research into the housing costs in Europe (Özdemir, E. & Ward, T., 2009). When doing so, they have made use of the European Union Statistics on Income and Living Conditions (EU-SILC). The researchers have reviewed housing costs in relation to disposable income: the housing cost quote. This comparative research reviews a number of aspects relating to housing costs: renting and buying, income groups, family composition, age. In the Netherlands, one conclusion continues to come to the forefront: the housing costs in the Netherlands are the highest in Europe (figure 1.1)! More specifically, 20% of the households with the lowest income in the Netherlands have a high housing costs quote: almost half of their disposable income is spent on housing costs.

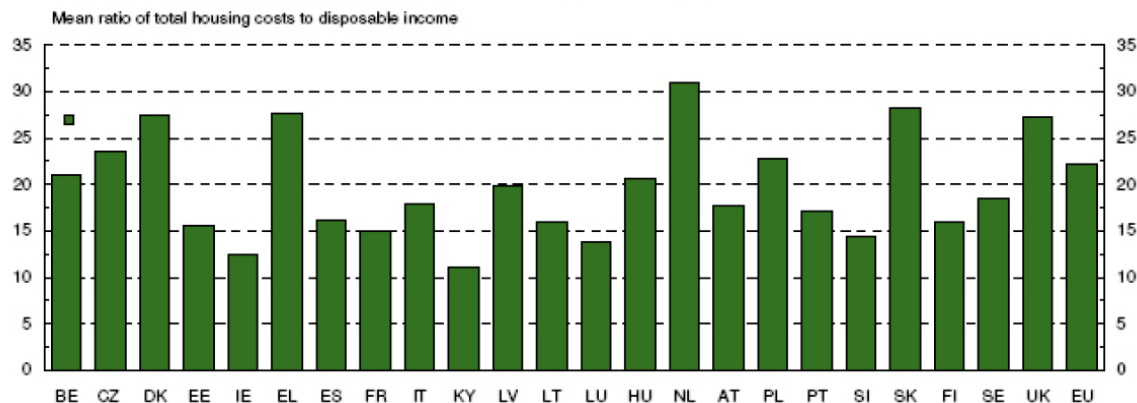


FIGURE 1.1: RATIO OF HOUSING COSTS RELATIVE TO DISPOSABLE INCOME (%) FOR TOTAL POPULATION, 2007 (EU-SILC)

From joint research between the VROM and CBS (2010), it is evident that the increase in the additional housing costs, during the period from 1998 to 2009 inclusive, is approximately two-and-a-half times higher than the increase in disposable household income. This increase is almost completely attributable to the higher energy costs (figure 1.2). The increase in the fixed housing costs, costs for water and the taxes and duties from the 'OPL' are more or less equal to the increase in the disposable household income. During the aforementioned period, the average housing costs quote for tenants also increased from 34.0% to 36.6% (MVROM & CBS, 2010).

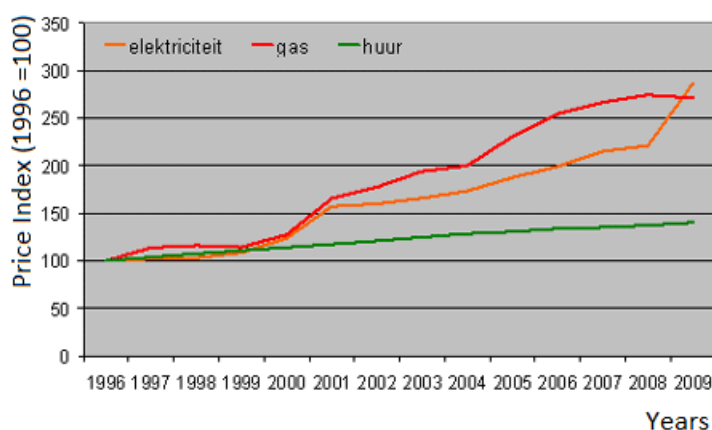


FIGURE 1.2: RENT AND ENERGY PRICE INDEX (AFWC (RENT) & CBS (ENERGY))

### 1.2.2 AFFORDABILITY OF HOUSING FOR DUTCH TENANTS

The affordability of housing is an important topic in Dutch housing policy. The Dutch Ministry of the Interior and Home Affairs (*Ministerie van Binnenlandse Zaken en Koninkrijksrelaties*) describes this as follows in its objective: “A good and affordable home in a clean and safe residential area, is a good basis for people to develop individually and socially. The Ministry therefore wishes to keep the housing costs manageable and to increase the supply of homes”. The Dutch Ministry of the Interior and Home Affairs intends to manage the housing costs by encouraging energy savings in the existing housing stock ([www.rijksoverheid.nl](http://www.rijksoverheid.nl), consulted on 9th April 2011).

In this respect, the Dutch Ministry of the Interior and Home Affairs thus follows the policies of the Balkenende IV cabinet. In 2008, during this cabinet, the ‘Energy savings Housing association sector’ (*Energiebesparing Corporatiesector*) covenant was signed by the Minister for WWI, the Minister of VROM, Aedes and the Woonbond (MVRM, MWWI, Aedes & Woonbond, 2008). In the covenant, the parties state that they recognize the importance of energy savings, for example, due to the increase in energy prices in relation to the rising housing costs (see also paragraph 1.2.1). The drawing up of the covenant is intended to realise 24PJ energy savings in the existing social housing stock during the period 2008-2020. This target relates to building-related energy consumption, in particular, space heating, hot tap water and ventilation (MVRM, WWI, Aedes, Woonbond, 2008).

In January 2008, the ‘energy label’ was introduced for real estate in the Netherlands. The energy performance certificate (that only serves as a communicative instrument), denotes the energetic quality of a home. The energy performance certificate has seven classes: from A to G. Energy label A denotes the most energy-efficient, energy label G denotes the least energy-efficient. In the ‘Energy savings Housing association sector’ covenant, the government states that it wishes to ensure that the energy performance of homes will be included in the residential valuation system (*Woning Waardering Stelsel* (WWS)).

Energy-labelling provides associations with an insight into the energy performance of their housing stock. It is expected that the introduction of energy labels will result in enhanced integration of energy-efficient measures in the strategic housing stock policy (Tambach, 2010). Approximately 35% of the housing stock (approximately 800,000 homes) owned by housing associations has a poor energy performance (energy label F or G).

Aedes and the Woonbond have described the approach of the energy-saving objective in the memorandum entitled “Renting with energy” (*Huren met energie*) from Aedes (2008) and in the campaign entitled “The Woonbond makes savings” (*De Woonbond Bespaart*) from the Woonbond in which the organisations state that they will endeavour to ensure that the energy-saving measures result in lower housing costs for the tenants. In other words, the decrease in the monthly costs for electricity and gas as a result of the intervention is greater than the increase in the average rent at complex level. Aedes quotes the objective of attaining energy label B as a result of implementing major home improvement.

### 1.3. PROBLEM DEFINITION

In the previous paragraphs, the Dutch housing costs and its development were described, as well as the Dutch policy regarding housing costs.

In the past decade the average Dutch housing costs for tenants increased. This increase is almost completely attributable to the higher energy costs. The Dutch government, Aedes and the Woonbond wishes to keep the housing costs manageable. And, intend to manage the housing costs by promoting energy savings in the existing housing stock. These energy savings relate to building-related energy consumption, in particular, space heating, hot tap water and ventilation. The housing associations sector therefore faces a major investment challenge, with the objective of keeping housing costs manageable for Dutch tenants. This research aims to contribute to investments in the energy quality of existing housing stock, by:

*Designing an instrument that provides insight into, and support in making, investment decisions. These decisions include investments to improve the energy quality of existing housing stock of housing associations. The aim is to keep housing costs manageable for Dutch tenants.*

With this objective, the following key question was formulated:

*What are the main aspects of a business case, with the aim of making housing costs manageable, which is generally applicable to energy projects?*



To fulfill the research objective and to answer the key question, a number of research questions were drawn up. These research questions relate to the problem owner, the current situation and the desired situation. The questions related to the problem owner concern the identity and the field in which the problem owner, the housing association, is operating. The questions about the current situation refer to the investment- and stockpolicy of the problem owner. For the desired situation the questions are related to the design of an instrument to make housing costs manageable for the problem owner, the housing association. In this research study the instrument is a business case. Many housing associations use business cases by making investment decisions (as shown in the interviews), and that makes the business case the most practicable instrument in this research.

1. Who is the problem owner, the housing association?
  - What is the background of housing associations?
  - What is policy framework, tasks and corporate strategy of housing associations?
  - What type of enterprise is a housing association?
  - In which market operates the housing association?
2. What does the current investment policy and stock policy of housing associations look like?
  - From what policies, investment decisions are taken?
  - How are investments financed?
  - Which return aims the housing association to achieve on its investments?
3. What does the desired, future investment policy and stock policy look like, with respect to the energetic quality of the existing housing stock?
  - What are the reasons for a housing association (not) investing in the energetic quality of the housing stock?
  - What are the objectives in terms of improving the energetic quality of existing homes?
  - How will the project approach improve the energetic quality of homes?



## 2. RESEARCH DESIGN

### 2.1. TYPE OF RESEARCH

The research can be characterized as a practical scientific research. An attempt is made to find, in a scientific way, an applicable solution for a concrete problem (Van der Zwaan, 1995). The regulative cycle of Van Strien (1986) is a method for doing practical research. The term "regulative" means that the cycle is focused on decision making. This contrasts the empirical cycle, which aims to produce scientific knowledge. The research cycle of Van Strien consists of five phases; namely problem, diagnosis, plan, intervention and evaluation (figure 2.1).

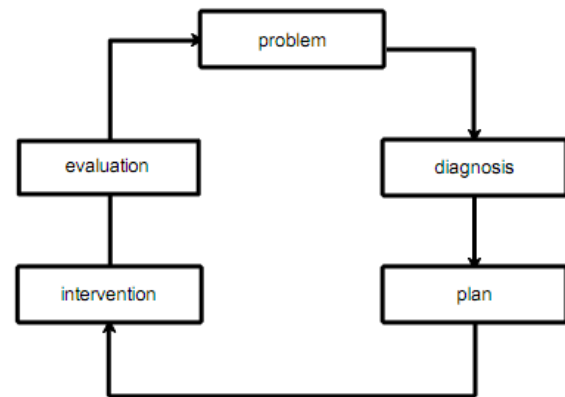


FIGURE 2.1: REGULATIVE CYCLE (VAN STRIEN, 1986)

The objective of this research is to develop a business case, with the aim of making housing costs manageable, therefore only the first three phases are discussed in this thesis. The housing association can implement the business case and review the application at a later stage. The problem phase consists in this research of the description of the context and problem definition. The diagnosis phase consists of a literature study and analysis and empirical study and analysis. The plan phase consists of the development and validation of the business case, with the aim of making housing costs manageable.

There is not much theory about the development of business cases by housing associations, focusing on the maintainability of the housing costs of consumers. Therefore, it is not possible to look from theory to practice. However, theory of business cases related to other sectors (f.e. software- and civil engineering) will be used in this study. Theory will be used to describe the relevant aspects of practice and possibly to interpret different attitudes. This research is aimed at gathering knowledge within the research field and to identify and describe factors that are relevant in this context. As a result, this research has an explorative and descriptive nature (Baarda and De Goede, 2006).

## 2.2. RESEARCH DESIGN

This research consists of three phases: problem phase, diagnosis phase and plan phase (figure 2.2 and Appendix 1). These phases are not strictly separated. Especially between the diagnosis phase and the plan phase is overlap in the form of an iterative process.

The problem phase consists of a literature survey and conversations with stakeholders. The purpose of this phase is to explore the problem area and to define and delineate terms. At the end of the problem phase, the research questions are determined. The purpose of the diagnosis phase is to gain insight into the factors that play a role in the development of business cases by housing associations. This is achieved by, through study of literature and empirical data, exploration of:

- The problem owner, the housing association;
- The current situation, investment and stock policy of housing associations;
- The desired situation, the desired, future investment and stock policy of housing associations.

In the plan phase, a fundamental business case was developed. The fundamental business case was designed in such a manner that it will be a tool which provides insight into and supports in the development of business cases by housing associations, focusing on the maintainability of the housing costs of consumers. The business case was tested and evaluated during an expert meeting.

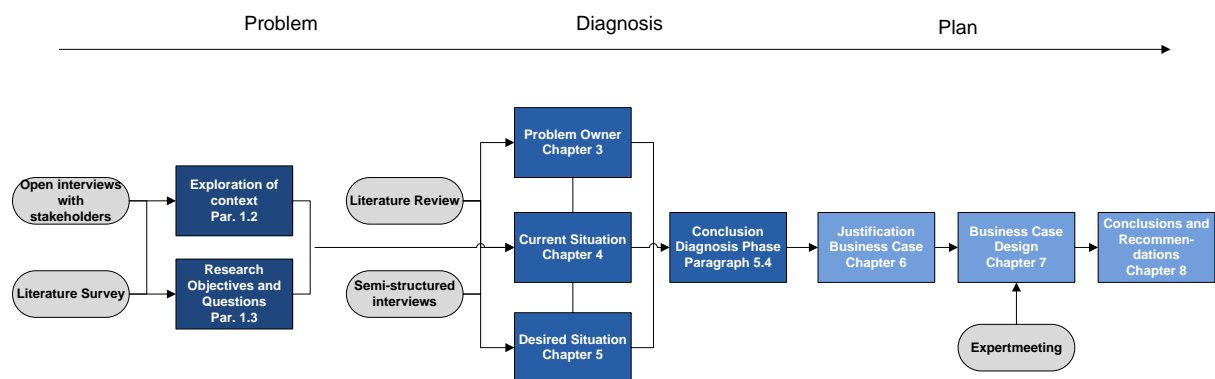


FIGURE 2.2: RESEARCH MODEL

## 2.3. DATA COLLECTION

### 2.3.1 LITERATURE SURVEY AND ANALYSIS

The literature review consists of the phases: exploration, specification, reduction and integration. In this research scientific literature, specialized literature and research reports were reviewed and analyzed. The research reports were derived from the Dutch Ministry of the Interior and Home Affairs, Aedes association of housing associations and OTB Research Institute from the Technical University Delft. Because of the large available amount of information in literature, the interviews were often used to test the information provided by literature.

In the first phase of the literature review, the exploration phase, there has been a wide orientation on different issues such as consumers' housing costs, suppliers of housing amenities and policy regarding consumers' costs of housing. This provided a complete picture of the possible problem area. Then, when the research objectives and questions were determined, specified literature has been collected with the criterion of interest for answering the research questions. Later, when the outline of the business case was set, specific literature was gathered and integrated into the instrument.

### 2.3.2 OPEN INTERVIEWS WITH STAKEHOLDERS

In the problem phase, three open interviews with external specialists took place. These interviews had a dual purpose. First, to get some insights into the context of consumers' costs. Second, to define a specific research question. With the conversations the practical relevance of the research was ensured.

In the diagnosis phase interviews were held. Interviews are an essential source of information for qualitative research (Yin, 2003). Through interviews, it is possible to gain a detailed understanding of a particular topic. The development of a business case, focusing on the maintainability of the housing costs of consumers, is not fully described in literature. Therefore it is neither possible nor desirable to draw a structured questionnaire. However, some kind of structure in an interview, because of the comparability and repeatability, is desirable. Therefore, an interview guide is prepared. A semi-structured interview method gives respondents the freedom to express their own views and ideas on the topic. In collaboration with the graduation coaches it was agreed to interview three housing associations. In selecting respondents, it was important that housing associations with different ambitions regarding the energetic quality of their housing stock, and thus different perspectives, were represented. To prevent a one-sided view is sketched. In addition, respondents were selected by their function within the housing association. It was important to interview strategy and policy advisors, because they coordinate the realization of strategic policy.

In the plan phase two conversations took place with a specialist on the field of system dynamics. System dynamics is an approach to understand the behaviour of complex systems over time. The conversations took place to discuss and validate the designed model, which gives an impression of the behavior of investments in the energetic quality of the housing stock of housing associations.

During this research also recurring conversations took place with the graduation coaches. The purpose of these conversations was to exchange information regarding the research process and research problem.

During the research partners with various backgrounds were consulted, f.e. lectures / professors of Eindhoven University of Technology, advisors of housing associations and consultants. Appendix 2 gives an overview of the consulted partners.

### 2.3.3 EXPERTPANEL

The design and development of the instrument is an iterative process driven on value creation. Decisions are made based on value judgments rather than judgments of truth. This means there is always a residual uncertainty regarding the suitability of the instrument (Friedl, 2001). The uncertainty about the suitability of the instrument is as much as possible removed by submitting the instrument to a panel of experts and by processing their comments in the final version of the instrument. This increases the validity of the design. Appendix 2 gives an overview of the experts.

### 3. THE HOUSING ASSOCIATION

In the diagnostic phase the research problem is defined. This requires use of scientific literature, specialist literature, research reports and interviews. In the diagnosis phase, three research questions are of interest. These research questions are answered in respectively chapters 3, 4 and 5. In this chapter, the first question concerning the problem owner will be answered.

This chapter endeavours to provide an answer to the question: 'Who is the problem owner, the housing association?' In this context, paragraph 3.1 describes the background of the association. Paragraph 3.2 describes the policy framework, tasks and corporate strategy. Paragraphs 3.3 and 3.4 describe the association as a social, hybrid organisation in a quasi-market. The conclusion of this chapter then provides an answer to the aforementioned question.

#### 3.1. BACKGROUND

In the course of time, housing associations have undergone development in terms of their social context. Prior to the introduction of the Dutch Housing Act (*'Woningwet'*), there were forty private institutions in the Netherlands that were involved in housing for the lower income groups and improving poor living conditions. These institutions (non-profit construction companies) worked without government support. The introduction of the Dutch Housing Act (*'Woningwet'*) in 1901, created a legal framework for government support for approved institutions (associations) that operated on a non-profit basis in the public housing sector.

After the Second World War, the amount of social housing (at that time, referred to as "Dutch Housing Act homes" (*'Woningwetwoningen'*)) increased significantly. This was necessary because of a substantial housing shortage, and resulted in enhanced government control. In the 1950's, this enhanced government control and the disadvantages of associations being subject to municipal policy were discussed. This discussion led to the appointment of the 'De Roos Committee' (*'Commissie De Roos'*) in 1958. The objective of 'Committee De Roos' was to advise the minister about the way in which the autonomy of associations could be enhanced in relation to the government. From the research by the 'De Roos Committee', it was evident that the associations had inadequate financial resources to become autonomous. In the 1980's, a financial security structure was implemented around the associations. For example, the Social Housing Guarantee Fund (*'Waarborgfonds Sociale Woningbouw (WSW)'*) and the Central Fund for Public Housing (*'Centraal Fonds voor de Volkshuisvesting (CFV)'*) were established. The associations were also provided with the opportunity to take out government loans at a low rate of interest.

The Public Housing Bill (*'Nota Volkshuisvesting'*) spurred on the privatisation of housing associations, in relation to finance as well as policy. The public housing policy focused on the decentralisation of powers, responsibilities and risks from the State to municipalities and provinces and the privatisation of housing associations and housing consumers (Heerma, 1989). The policy relating to associations manifested itself in the 'Decree concerning the management of the public-rented housing sector' (*'Besluit Beheer Sociale Huursector'* ('BBSH')). The BBSH describes which activities associations may undertake and what they should primarily focus on. The BBSH also describes how housing associations must substantiate their policy. The introduction of the BBSH enhanced the policy freedom of associations. The "grossing-up operation" (*'bruteringsoperatie'*) in 1995, in which the outstanding government loans to housing associations were cancelled as a result of subsidy obligations by the government, enabled the associations to become financially independent.

In 2009, 418 housing associations were active in the Netherlands. Jointly, they own 2.4 million homes (equivalent to 31.7% of the Dutch housing market). On average, one association thus owns 5,800 housing units ([www.cfv.nl](http://www.cfv.nl), consulted on February 26<sup>th</sup> 2011).

### 3.2. POLICY FRAMEWORK, TASKS AND CORPORATE STRATEGY

As described in paragraph 3.1, the Dutch Housing Act (*'Woningwet'*) established the legal basis for associations. In the Dutch Housing Act (*'Woningwet'*) (article 70(1)), the approved institutions are defined as: 'Associations with full legal capacity and foundations which have as their object to operate solely in the public housing sector and do not intend to distribute any profits other than in the interests of public housing, may be approved by royal decree as institutions operating solely in the interests of public housing.'

The 'Decree concerning the management of the public-rented housing sector' (*'Besluit Beheer Sociale Huursector'* (BBSH)) describes the code of conduct for housing associations. The BBSH provides a comprehensive description of the 'public housing sector' in which associations may solely operate. Article 11 of the BBSH describes the public housing sector. The public housing sector relates to various activities, such as constructing, managing and apportioning homes. Management of the environment and providing services to residents and those seeking housing is also mentioned.

In addition to the activities that relate to the public housing sector, the BBSH specifies five core tasks for associations. Associations must justify their policy based on these core tasks. The five core tasks are:

- To rent (on a priority basis) to the primary target group;
- To ensure the quality of all dwellings;
- To involve tenants in the management and policy;
- To guarantee financial continuity;
- To make a contribution to the quality of life in neighbourhoods and districts.



In addition to the aforementioned core tasks, housing associations undertake activities that can also be performed by market parties, such as developing and selling housing units. In this respect, the general legislation, such as building regulations and Dutch Tenancies (Rent) Act (*'huurprijzenwet'*) are applicable to associations. In addition, as 'approved institutions', associations are subject to specific legislation. This specific legislation, as regulated by the 'BBSH' and the Dutch Housing Act (*'Woningwet'*), restricts the activities of the association to the public housing sector. Furthermore, any profits must be used for public housing.

Gruis (2007) states that housing associations have a great deal of freedom when choosing a corporate strategy and implementing it. One association may create a distinct profile for itself in terms of its service to the customer, while another association may focus on being a partner in the district. Some associations prefer to present themselves as real estate companies, while others create a profile for themselves as being as social institutions operating in the fields of housing, care and welfare. The management styles from Gruis (2007) are based on the distinction from Miles and Snow (1978). Gruis (2007) distinguishes between the following types of associations:

- Conservative associations who restrict their activities to the traditional work field of housing associations: the building and management of rented housing, especially in terms of housing the primary target group. Innovations are limited to optimising the efficiency of work processes and improving the provision of services and products for this market segment.
- Innovators that are extremely innovative, and in the broadest sense of the word, undertake all kinds of work outside the scope of the traditional activities.
- Associations that think primarily about objectives for social return and (semi-)public measures and, in this respect, regard financial continuity as a precondition.
- Associations that think primarily in terms of financial return, growth by value, and supply and demand, and regard the realisation of certain social achievements as a precondition.

By combining these characteristics, four management styles can be distinguished, namely social housing provider, social housing investors, social innovator and social real estate entrepreneur. Also see the model from Gruis in Table 3.1. The benefit of the model is that directors of associations can typify the direction of development (and possibly, the cultural style). It is assumed that the selection of a management style will provide the association with a reference framework for testing and evaluating its choices in terms of consistency with the management style. Conversely, it can be determined whether one specific management style can be adopted, based on the choices that have been made in relation to the strategic planning, the business model and property management.

**TABLE 3.1: MANAGEMENT STYLES GRUIS (2007)**

Conservative		Primary focus on financial return
Primary focus on social return	<b>Social housing provider</b> <ul style="list-style-type: none"> <li>• Focuses on traditional target (low income housing and special target groups)</li> <li>• Strives for efficient operation</li> <li>• Aims primarily at maximizing social returns and actively uses excess capacity (expressed in affordable rents and tenant satisfaction)</li> </ul>	
	<b>Social housing investors</b> <ul style="list-style-type: none"> <li>• Focuses on traditional activities (offering of social housing)</li> <li>• Strives for efficient operation</li> <li>• Lets existing housing stock through "going concern" strategy, with relatively little differentiation in quality and affordability, render</li> </ul>	
Primary focus on social return	<b>Social innovator</b> <ul style="list-style-type: none"> <li>- Has broad playing field (private sector, social sector and type of service)</li> <li>- Strives for constant innovation in playing field, products and services</li> <li>- Aims primarily at maximizing social returns and actively uses excess capacity</li> </ul>	Primary focus on financial return
	<b>Social real estate entrepreneur</b> <ul style="list-style-type: none"> <li>- Focuses on real estate activities (including non-residential), for large sections of the population</li> <li>- Strives for constant renewal of real estate / housing</li> <li>- Strives primary for profitable real estate / housing with respect to the social objectives</li> </ul>	
Innovative		

### 3.3. SOCIAL ENTERPRISE

Since the privatisation in the mid 1990's, associations are regarded as autonomous organisations with a public sector mission<sup>1</sup>. The term 'social enterprise' thus made its debut. Conijn (2005) regards social enterprises as follows:

- Social enterprises are private organisations, that are not associated with the government;
- Social enterprises are, by virtue of their social objective, involved in realising public interests;
- A social enterprise does not distribute profits to third parties, but allocates this profit to its social objective;
- A social enterprise does not set out to maximise profit.

A social enterprise must be accepted in society, in order to be able to perform optimally (SER, 2005). The Social and Economic Council of the Netherlands ('*Sociaal-Economische Raad*' (SER)) states that this acceptance cannot be obtained on the basis of history, "*but must be repeatedly earned and substantiated, as a result of interaction with the social environment. The organisation will demonstrate that it recognizes its various stakeholders as powerful figures who can help to enhance the quality and efficiency of the provision of services*" (SER, 2005).

Poorter (2006) has conducted research into stakeholders' participation in associations. In her research report, she concludes that associations recognize the importance of stakeholders' participation. She notes that 88% of the associations implement stakeholders' participation. Poorter distinguishes between the motives for associations implementing stakeholders' participation. The first motive is based on ideology. By involving stakeholders, social acceptance is achieved. Activities that are undertaken by the association thus provide recognised added value for society. The second motive is intrinsic by nature, and relates to marketing and information. Stakeholders are involved because they have specialist knowledge and expertise, thus enabling better policy-making. The latter argument is based on pragmatic motives. The involvement of stakeholders creates a basis for policy.

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<sup>1</sup> Article 22 (2) of the Dutch Constitution states that providing public housing is a task for the government.

#### 3.4. QUASI-MARKET AND HYBRID ORGANISATION

The position of associations has shifted as a result of this privatisation. Associations are, in accordance with article 70(1) of the Dutch Housing Act (*'Woningwet'*), as approved institutions, associated with the government. In addition, they are responsible for their finances. As a result of this privatisation, associations operate between the market, society and the government. Housing associations are thus in a quasi-market.

Brandsen (2004) describes that certain aspects of quasi-markets differ from regular markets. Quasi-markets are not 'free' like regular markets. Instead, they are subject to rules that are stipulated by the government. Housing associations must make performance agreements. Each year, the 'Ministry of VROM' checks whether housing associations comply with the requirements of the performance agreements.

Due to its public sector mission and private character, the association is regarded as a hybrid organisation ('VROM' Council ('VROM-Raad'), 2005). A hybrid organisation operates between two cultures or value systems. This can result in synergy effects, and also tension ([www.hybrideorganisaties.nl](http://www.hybrideorganisaties.nl), consulted on April 5th 2011). The association must, by virtue of its hybrid character, constantly provide public justification of the effectiveness of its conduct, the results, and about what has and has not been done. This requires transparency from the operational management, accountability, and the implementation of codes of conduct ('VROM' Council ('VROM-Raad'), 2005).

Since associations are hybrid organisations, they are not just looking for a financial return, but also for a social return (see paragraph 3.3). The extent to which the association focuses on a specific type of return is related to the management style (see paragraph 3.2).

### 3.5. CONCLUSION

The objective of this chapter is to answer the question 'Who is the problem owner, the housing association?'. In this respect, various aspects about the association have been explained in the aforementioned paragraphs. As mentioned, these aspects arise from scientific literature, specialist literature, research reports and interviews.

The housing association is, from time immemorial, a government-controlled organisation, that is involved with housing the lower income groups and improving poor living conditions. Since the privatisation in 1995, the policy freedom of the association has been enhanced. The legal basis for the association is described in the Dutch Housing Act ('*Woningwet*'). The code of conduct for housing associations is described in the Decree concerning the management of the public-rented housing sector ('*Besluit Beheer Sociale Huursector*' ('BBSH')). The BBSH provides a comprehensive description of the 'public housing sector' in which associations may solely operate.

By virtue of the private character and the public interest, the present association is regarded as a social enterprise or hybrid organisation operating in a quasi-market. The association must, by virtue of its social and hybrid character, constantly provide public justification of the effectiveness of its conduct, the results, and about what has and has not been done. The association must be accepted in society, in order to be able to perform optimally. The majority of the associations recognize the importance of the stakeholders' participation, and state that the main motives for stakeholders' participation are obtaining social acceptance, and reaching agreement about and obtaining a basis for the policy of the association (Poorter, 2006).

Housing associations have the freedom to choose a corporate strategy. Gruis (2007) distinguishes between four management styles, namely social housing provider, social housing investors, social innovator and social real estate entrepreneur. This distinction has been made by combining four characteristics: conservative people, innovators, focus on social return, and focus on financial return. The management styles enable the direction of development (and possible culture style) to be typified. Moreover, the association provides a reference framework for testing and evaluating its choices in terms of consistency with the management style. Conversely, it can be determined whether one specific management style can be adopted, based on the choices that have been made in relation to the strategic planning, the business model and property management.

Housing associations have changed in a social, hybrid organization in a quasi-market. Because of this the housing associations received other objectives. The goal is not only to provide affordable rents, but to provide affordable housing. From this perspective, the housing association is responsible for the manageability of the housing costs of its tenants. The housing costs include the costs of energy. Therefore energy related issues or projects associated to the housing stock belong to the housing association.



## 4. INVESTMENTS IN THE HOUSING STOCK BY ASSOCIATIONS

In the diagnostic phase the research problem is defined. This requires use of scientific literature, specialist literature, research reports and interviews. In the diagnosis phase, three research questions are of interest. These research questions are answered in respectively chapters 3, 4 and 5. In this chapter, the second question concerning the current situation will be answered.

Housing associations make decisions on an almost daily basis about the development of their housing stock in terms of building and living quality, price and allocation. This chapter endeavours to give an answer to the question 'What does the current investment policy and stock policy of housing associations look like?'. In this respect, paragraph 4.1 describes which investment policy decisions are made. Paragraph 4.2 describes the financing of investments. Paragraph 4.3 describes the expected return for the investment. Paragraph 4.4 the conclusions are given.

### 4.1. STOCK POLICY & MANAGEMENT

According to Nieboer (2009), associations have an increased interest in developing their own, professionalised and also market-oriented stock policy. Nieboer distinguishes four factors that have brought this about:

- The privatisation of the Dutch public-rented housing sector;
- The changing requirements for the housing stock;
- The internal structure of the Dutch public-rented housing sector;
- The urban restructuring.

Within the stock policy for associations, a distinction can be made between strategic stock policy and operational stock policy.

Van den Broeke (1998) defines the strategic stock policy as: 'All activities that a property manager performs in a related manner as part of a market-oriented, strategic and comprehensive approach. These activities focus on the housing stock in order to keep abreast and/or cope with market demand and the business objectives of the renter in the short-term and in the long-term.'

With regard to the strategic stock policy, it is necessary to review the composition of the desired housing stock in order to satisfy the future housing demand, and to also review which actions must be taken at a complex level in order to achieve that desired composition of the housing stock (Nieboer, 2005). With regard to this strategic stock policy, the association also draws up long-term policy plans and management plans for the housing stock (Keeris, 2001).

In addition to the strategic stock policy, associations implement an operational stock policy. This stock policy primarily focuses on maintaining the stock and performing maintenance on this stock (Nieboer, 2005).

In the same way as for the stock policy, associations also manage the housing stock at different levels (figure 4.1). The portfolio management is the management at strategic level and deals with policy choices for the entire housing stock of an association. At tactical level, the asset management focuses on the management at district level and the policy choices for several properties and residential buildings. At the lowest level, the management takes place at operational level. This is referred to property management, and entails specific management at the level of individual homes (Van Gool e.a., 2007; Nieboer, 2009).

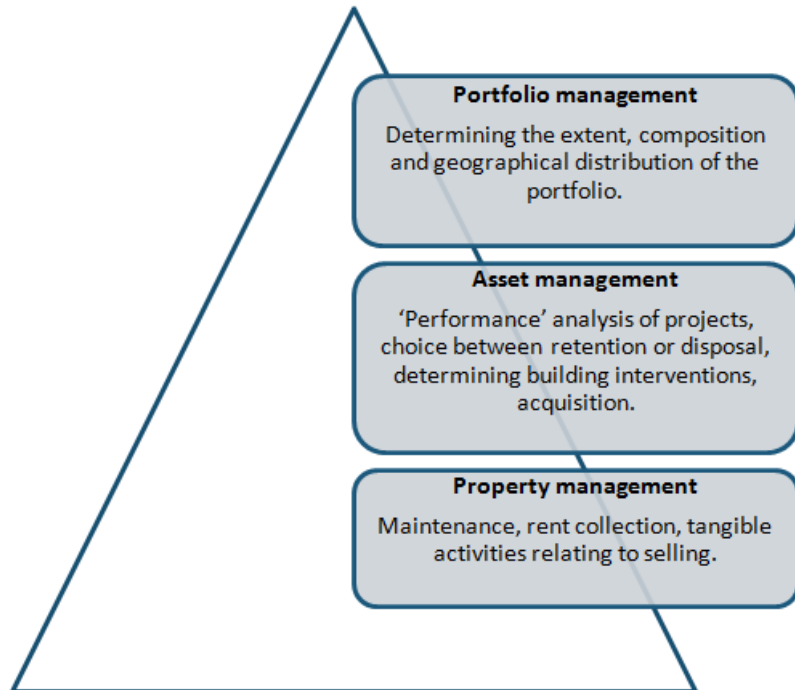


FIGURE 4.1: LEVELS OF REAL ESTATE MANAGEMENT (NIEBOER, 2009)

#### 4.2. FINANCING

Guaranteeing the financial continuity is one of the core tasks of the BBSH. In order to guarantee financial continuity and enable investment opportunities, it is important for associations to have access to adequate capital. Investments can only be made by associations with cash surpluses and/or by securing loan capital. Cash surpluses are achieved when income exceeds expenditure (Noordenne et al., 2009).

The guarantee via the Social Housing Guarantee Fund ('*Waarborgfonds Sociale Woningbouw* (WSW)') enables associations to take out loans at relatively low rates on the capital market. The extent to which an association can lend at relatively low rates ('*faciliteringsvolume*') was previously determined by the 'WSW' after performing an assessment of the solvency<sup>2</sup> of an association. Moreover, since many associations appear to be solvent, but not liquid, the

<sup>2</sup> Solvency denotes the extent to which a company, financial institution or person is able to meet all of his/her/its financial obligations. The solvency ratio is calculated by dividing the net assets by the balance sheet total (total liabilities) and then multiplying by 100%. (www.fd.nl, consulted on 9th April 2011)



'WSW' now performs this assessment based on the liquidity<sup>3</sup> and cash flows<sup>4</sup> of an association. This new form of assessment by the 'WSW' has made it difficult for associations to attract loan capital ('WSW', 2009). Selling off of rented housing (the so-called "selling off as individual units" ('*uitponding*')) by the association has a favourable effect on the assessment of liquidity and cash flows performed by the 'WSW', and also enhances the extent to which an association can lend at relatively low rates.

When associations make investments, part of the investment is usually not profitable. This unprofitable part of the investment is referred to as the 'inevitable loss'. In recent years, these investments have become increasingly unprofitable for associations, for example, as a result of the introduction of the company tax and the special levy ('*Vogelaarheffing*') for the forty deprived areas. The company tax was introduced by the government for the associations, because they had a competitive advantage over commercial market parties. However, the government has introduced a special levy ('*Vogelaarheffing*') in order to make money available for necessary investments in the forty deprived areas.

An investing association that wishes to replenish its stock is often dependent on "selling off rented housing as individual units" ('*uitponding*') (Van Noordenne et al., 2009). The profits from selling rented housing can be used to financially offset the inevitable losses incurred from the construction of new homes and renovating the existing stock. The sale of one rented home thus finances the inevitable loss from one or two new association homes or the renovation of a number of rented homes (CFV, 2004). From research by the WSW, it is evident that 63 per cent of investments for constructing new homes for associations are, to a great extent, dependent on the selling off of rented homes (WSW, 2009).

#### 4.3. RETURN

Since the privatisation of the housing association sector, more attention is being paid to the return<sup>5</sup> from investments made by associations. In this respect, a distinction can be made between financial return and social return. Since associations are hybrid organisations (also see paragraph 3.4), they are not just looking for a financial return, but also for a social return. The extent to which the association focuses on a specific type of return is related to the management style (also see paragraph 3.2).

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<sup>3</sup> Liquidity is the ability of an enterprise to meet its payment obligations in the short-term. Short-term is usually defined as: within a period of one year. The money directly available to a company or other organisation, including the cash in hand and the assets directly available at the bank and the giro are referred to as the liquid funds. (www.fd.nl, consulted on 9th April 2011)

<sup>4</sup> The cashflow ('*kasstroom*') denotes the movement in the liquidity of an enterprise. Overview of all liquid funds that become available in a period and the way in which these funds are used. The level of the cash flow denotes whether a company has a lot or very little money to make investments or to pay off debts. (www.fd.nl, consulted on 9th April 2011)

<sup>5</sup> The proceeds from an investment over a certain period, expressed as a percentage of the costs incurred for this. (fd.nl, consulted on 9th April 2011)

#### 4.3.1 FINANCIAL RETURN

Since privatisation, the financial return has become more important for the association. This is because, in order to fulfil the core task from the BBSH, financial continuity must be guaranteed. The financial return consists of a direct and an indirect return.

The direct return is also referred to as the operating return and is derived from the cash flows. The net cash flow consists of the income from renting the housing stock and the selling off of rented housing. This income is reduced by the inevitable loss from the investments and the operating costs for the real estate (CFV, 2004). For example, the operating costs of associations consist of maintenance costs, wages, social security charges, rent charges, depreciations and other operating expenses (CFV, 2010).

The indirect return is formed by the increase in the value of the housing stock (CFV, 2004). The CFV distinguishes between three aspects that affect the increase in value, namely: the numerical increase in value, the effect of parameter changes in the year under review on the calculated value in use and the effect of changes in the level of the points of departure in any year on the calculated value in use (level changes) (CFV, 2004).

#### 4.3.2 SOCIAL RETURN

Associations not only endeavour to attain an optimal financial return, but also an optimal social return. Gruis (2004) defines social return as all desired positive effects that are caused by the activities of associations. This primarily relates to the specific activities that can be performed in a manner that is not in line with the market, and also to the other activities.

The social return is more difficult to measure than the financial return. The literature does not unambiguously state how the social return can best be measured. Gruis (2004) argues that performance indicators should be used. In this respect, a distinction can be made between indicators for output and outcome. Output relates to the service or the product that is supplied and is thus relatively easy to measure. Outcome relates to the social effect that is intended and is not always so easy to measure and/or to relate to the output.

In addition to the method from Gruis, the Social Return on Investment method (SROI) can be used to measure the social return. The SROI ratio denotes the social value of each invested euro.

#### 4.4. CONCLUSION

The objective of this chapter is to provide an answer to the question 'How is the investment policy for associations formulated?'. As mentioned, to provide an answer to this question scientific literature, specialist literature, research reports are reviewed and interviews are held.

Housing associations have an increased interest in the development of their own professionalised (and also market-oriented) stock policy as a result of the privatisation of the Dutch public-rented housing sector and the changing requirements in the housing stock. The stock policy for associations can be subdivided into a strategic stock policy and an operational stock policy. Although it is intended as a comprehensive strategy for the organisation, the stock policy for large housing associations is often snowed under by other strategies and views. When choices have to be made between scheduled maintenance, demolition, selling or renovation, factors at district or dwelling level are often crucially important (Nieboer, 2009).

When the association intends to invest in its housing stock, it is important for it to have access to adequate capital. Investments can only be made by associations with cash surpluses and/or by securing loan capital. When associations make investments, a part of the investment is usually not profitable. This unprofitable part of the investment is referred to as the 'inevitable loss'. An investing association that wishes to replenish its stock is often dependent on "selling off rented housing as individual units" (*'uitponding'*) (Van Noordenne et al., 2009).

Associations endeavour, independent of the management style, to achieve a certain financial and/or social return. The financial return can be subdivided into a direct return and an indirect return. The direct return (also referred to as the operating return) is derived from the cash flows. The indirect return consists of the increase in value of the housing stock. The social return relates to all desired positive effects that are caused by the activities of associations. This primarily relates to the specific activities that cannot be performed in line with the market, and also to the other activities.

Since social returns are difficult to measure objectively, housing associations are likely to be guided by financial returns. When the energetic quality of existing housing will be improved, the (financial) benefits following the improvement are for the housing associations tenants. The housing association will bear the cost of the investment, but these often do not cover the rent increase. Therefore it is important that housing associations not only consider financial returns when taken investment decisions, but make decisions based on economic considerations. This also implies social return.



## 5. INVESTMENTS IN THE ENERGETIC QUALITY OF THE EXISTING HOUSING STOCK BY ASSOCIATIONS

In the diagnosis phase, three research questions are of interest. In this chapter, the third question concerning the future, desired situation will be answered. In order to obtain a clear overview of the investments that associations make in the energetic quality of the housing stock, information about this is collated during the research. In order to get an insight in the desired situation about the future investments and stock policy of housing associations, are half-open interviews organized. This gave the possibility to check the report written about this subject and get more information concerning the strategies of housing associations. In addition, information has been collated that can contribute to the development of the business case. The information has been collated by interviewing specialists, with regard to their knowledge and experience with the implementation phase of integrated building organisations and by reviewing specialized research.

This chapter endeavours to provide an answer to the question: ‘What does the desired, future investment policy and stock policy look like, with respect to the energetic quality of the existing housing stock?’. In this context, paragraph 5.1 describes the planning of the field research, paragraph 5.2 gives a summary of these results and in paragraph 5.3 gives a conclusion of the field research.

### 5.1. PLANNING OF FIELD RESEARCH

Specialists from various associations possess the requisite knowledge and experience in the field of investments in the energetic quality of the housing stock. Interviews were held in order to try to obtain a better insight into this knowledge and experience. This paragraph describes the procedure and the persons involved.

It was decided to hold individual half-open interviews. In other words, the specialists are interviewed one at a time and a planning is compiled prior to the interview, but not in detail. The advantage of this is that the knowledge of all the specialists can be used, that the structure of each interview is the same, and that everything is discussed, but that the interviewees are also given the opportunity to contribute, and this is important when comparing and collating knowledge.

When selecting respondents, it was important for housing associations with different ambitions regarding the energetic quality of their housing stock, and thus different perspectives, to be represented in order to prevent a one-sided view from being formed. In addition, respondents were selected by their function within the housing association. It was important to interview strategy and policy advisors, because they coordinate the implementation of strategic policy.

It was decided to interview three different housing associations. The three associations were selected according to their ambitions in relation to the energetic quality of their housing stock. The first association, WonenBreburch in Tilburg, is an association with 30,000 rentable units in Tilburg and Breda. WonenBreburch has stated that its ambition is for its stock to be CO<sub>2</sub>-neutral by 2044. The second association, Trudo in Eindhoven, regards energy demand limitation as an option for the tenant. It is currently developing a package of measures that can be individually implemented in order to enhance the energetic quality. In addition, this association is researching whether it can generate sustainable energy. The third association, Kleinemeierij in Rosmalen, has invested in making the energetic quality of its housing stock transparent. In addition, this association considers the Buildings Decree (*'Bouwbesluit'*) to be a minimum requirement.

A strategic policy advisor from WonenBreburch, a strategic policy advisor from Trudo and a person who commissions the construction of new homes from Kleinemeierij were interviewed. Moreover, since these persons have knowledge and experience about the policymaking relating to the energetic quality of the housing stock, the interviews were extremely informative and suitable for research. The interviews were held in the office of the relevant association.

In Appendix 3, you can find an overview of the interviewed persons. The results from the empirical research (i.e. the interviews) enable a good insight to be obtained into the investments in the energetic quality of the housing stock by associations. The following paragraphs contain a summary and analysis of the interviews.

## 5.2. SUMMARY OF FIELD NRESEARCH RESULTS

In this paragraph, you can find a summary of the research results. The summary of the research results is described based on the three main questions from the interviews. The interviews are included in Appendix 3.

### 5.2.1 WHAT ARE THE REASONS FOR AN ASSOCIATION (NOT) INVESTING IN THE ENERGETIC QUALITY OF THE HOUSING STOCK?

#### WonenBregburg

WonenBregburg invests in the quality of its existing housing stock in order to ensure that the housing units remain rentable and thus score well in the market. The association takes into account that the homes will be sold in the long-term, and because of this, also needs to ensure the optimal quality of its housing stock.

With regard to investment in the energetic quality of the housing stock, (in the event of rising energy costs) the association intends to keep the homes affordable for the tenant, and the association also intends to attain a reduction in CO<sub>2</sub> emissions. The association wants to have a CO<sub>2</sub>-neutral housing stock by 2044. WonenBregburg has commissioned research into the affordability of its housing stock and from this it is evident that the primary target group has a high housing cost quote (higher than the standard from the Nibud/CBS). With regard to affordability, the BBSH refers to the net rent and not to the housing costs, and despite this, the association endeavours to attain an optimal balance between housing costs and income at the moment and also in the future.

WonenBregburg quotes too much risk or too much strain on the resources of the association as reasons for not investing. In addition, it is important for the investment to be profitable so that this does not result in a negative cash flow.

#### Trudo

Trudo is in favour of a major urban renewal assignment and a large-scale expansion program. Trudo has a rather limited housing stock and intends to differentiate its housing stock via the renewal assignment and expansion program. With regard to the existing housing stock, Trudo intends to retain the desired level of stock quality.

The association intends to keep the housing stock 'in demand' by investing in the energetic quality of its homes. By 'in demand', the association is referring to the renting, selling and affordability of its homes.

Trudo states that when the investment no longer equates to the future value of a project, this constitutes a reason for not investing in a project. The association also states that sufficient demand exists for homes with a basic level of quality linked to low rental price. For Trudo, this is also a reason for not investing in the energetic quality of the housing stock.

### Kleinemeerij

Kleinemeerij states that the investments are in line with the strategic stock policy. The reason for investing is to retain the balance of the portfolio (different homes, different quality, etc.). This is possible by purchasing, developing or renovating. The association states that it does not renovate or purchase very much. On the other hand, the association is busy developing new homes.

Kleinemeerij does not have a policy relating to the energetic quality of its existing housing stock. Investments in the energetic quality of the existing housing stock are not being discussed at Kleinemeerij. However, it has invested in making the energetic quality of its existing housing stock transparent (by energy-labelling).

Kleinemeerij states that, an increase in the market value of a home and the keeping the housing costs affordable for its tenants are reasons for investing in the energetic quality of the housing stock. The association also states that adequate financial resources must be available.

#### 5.2.2 WHAT ARE THE OBJECTIVES IN TERMS OF IMPROVING THE ENERGETIC QUALITY OF EXISTING HOMES?

### WonenBreburch

The objectives for the housing stock are described in the portfolio policy. These objectives result in (dis)investments. In addition, there are also (dis)investments resulting from a joint approach towards the district developed by the association and municipality. The energetic quality of the housing stock forms part of the performance agreements that the association has drawn up with the municipality. The association checks whether the proposed investment is in line with the financial estimates. The risks are also identified and assessed. In addition, the affordability of the home also plays a role: the increase in rent may not exceed the savings in energy costs.

WonenBreburch states that the rent policy and the energetic policy are not compatible. On the one hand, the association has made agreements with the municipality about the maximum level of the rent for the core stock. On the other hand, the government allows the association to demand higher rents from its tenants, since the government provides the association with the opportunity to revalue every independent unit by 25 'WWS' points. Moreover, any label enhancement also constitutes a reason for increasing the rent. The association states that it does not charge its tenants the maximum rent, because the association would then not be able to guarantee the affordability of the homes.

WonenBreburch, in collaboration with ELES, is researching whether (a part of) the existing housing stock can be connected to a heating network, supplied by a biomass power station. Via this initiative, the association is researching whether the remaining energy requirement can catered for in a sustainable manner. Via this initiative, the association intends to shield its tenants from the rising energy prices for fossil fuels.



### Trudo

Trudo is currently developing a policy devoted to sustainability. A number of factors have contributed to this, such as an observation by the monitoring committee and the INK institute. Moreover, social pressure and the threat of rising energy costs have contributed to the development of the policy. The energetic quality of the housing stock does not play a role in the present performance agreements; however Trudo anticipates that the energetic quality of its housing stock will play a role in future performance agreements.

Trudo broadly defines its policy in terms of sustainability. In addition to the energetic quality of the existing housing stock, extended service life, flexibility and the production of sustainable energy will also play a role. Trudo states that investing in the energetic quality of the housing stock is only a small part of what can be achieved. By investing in the energetic quality of its housing stock, the association wishes to give the residents a choice. Trudo wants to offer the residents a package of energy-saving measures that can be individually implemented. It is up to the resident to decide whether to implement the energy-saving measures associated with the increase in rent as a result of the improving the home.

In addition to the package of energy-saving measures, the association is researching whether it can generate sustainable energy. By generating sustainable energy, the association intends to reduce the CO<sub>2</sub> emissions from its housing stock. In addition, the production of sustainable energy provides the association with the opportunity to generate income.

### Kleinemeierij

Kleinemeierij does not have a policy relating to the energetic quality of its existing housing stock. Tangible objectives are not evident. Sustainability currently has a low priority at Kleinemeierij.

With regard to the construction of new homes, the association adheres to a program of requirements that stipulates the objectives in terms of energy performance. Kleinemeierij has agreed the municipality of Den Bosch that it will attain a level of energy performance that is 20% higher than that stated in the Buildings Decree (*'Bouwbesluit'*). However, in the meantime, this agreement is no longer binding because the level stated in the Buildings Decree (*'Bouwbesluit'*) was raised in January 2011.

By using sustainable energy (WKO installation), the association adheres to 'the not more than otherwise principle'. This means that the sustainable energy supplied by the association will not be more expensive than the non-sustainable energy from the energy provider. Moreover, the association intends to receive some return from the sustainable energy and to restrain the rising energy costs.

### 5.2.3 HOW WILL THE HOUSING ASSOCIATION IMPROVE THE ENERGETIC QUALITY OF HOMES?

#### WonenBregburg

WonenBregburg states that improving the energetic quality of its housing stock takes place via the normal work processes. Improving the energetic quality of the housing stock takes place during the construction of new homes and major maintenance. In the case of major maintenance, a distinction is made between maintenance and home improvement. An approach that encompasses all sustainability aspects is still not evident. The association uses GPR ([www.gprgebouw.nl](http://www.gprgebouw.nl)) in pilots, and intends to introduce this methodology as standard practice.

The interventions performed by WonenBregburg in order to enhance the energetic quality are focused on reducing the demand (by double-glazing, insulation, etc.). In addition, the association favours the efficient use of insulation (HE boilers, etc.).

#### Trudo

The package of energy-saving measures was introduced in 6 selected complexes in 2011. An external consultancy is currently drawing up technical proposals that can be implemented per home in order to make the homes more energy-efficient, thereby enhancing the label classification and providing energy savings. Trudo wishes to implement the measures in the complexes and to monitor the energy consumption during a one year period. At the end of this period, Trudo wants to offer its other residents a package of energy-saving measures that are also linked to increased rents.

Trudo outsources all of its maintenance activities to third parties. The implementation of the package of energy-saving measures will also be outsourced.

#### Kleinemeierij

Kleinemeierij outsources its development assignments to Stek.nu. Kleinemeierij states that the development of a project including a WKO installation is, in many respects, very similar to developing a project without a WKO installation. The main difference is that the association must recruit specialists who are fully conversant with WKO installations. By supplying sustainable energy, many changes have been evident in the association. The association has also become a public utility company, and this requires new additional financial management.

### 5.3. CONCLUSION OF FIELD RESEARCH RESULTS

During the analysis of the results of the empirical research, a number of points were noted. This paragraph provides an overview of these points. The overview has been compiled, based on the questions from the interview.

#### 5.3.1 REASONS FOR AN ASSOCIATION (NOT) INVESTING IN THE ENERGETIC QUALITY OF THE HOUSING STOCK

The reasons stated by the associations for investing in the energetic quality of their housing stock are, to a great extent, similar. Thus, all of the interviewed associations stated that they wish to maintain a certain level of quality for the housing stock specified by the association. Two out of three associations state that they wish to invest in their housing stock in order to differentiate or retain the balance of the portfolio. The associations wish to have a rentable / sellable and affordable housing stock. In addition, two associations state that they wish to reduce the CO<sub>2</sub> emissions.

The associations state different reasons for not investing in the energetic quality of the housing stock. Two associations state that adequate financial resources must be available for the investment. In addition, according to one association, the investment must not result in a negative cash flow and the risks must not be too great. Another association states that the investment must equate with the future value of a project, and when this is not the case, this constitutes a reason for not investing. The same association states that sufficient demand exists for homes with a basic level of quality linked to low rental price, so that the association does not have to invest in the improved energetic quality of the housing stock.

#### 5.3.2 OBJECTIVES IN TERMS OF IMPROVING THE ENERGETIC QUALITY OF EXISTING HOMES

The associations pursue various objectives in order to improve the energetic quality of the existing housing stock. Two associations thus intend to restrain the rising energy costs and to manage the affordability of the housing. One association intends to provide its tenants with the opportunity to implement energy-saving measures, the association wishes to offer its tenants a choice.

All three the associations focus on producing sustainable energy, either because this is their own ambition or because this has been imposed on them by the municipality. On the one hand, for the reduction of CO<sub>2</sub> emissions. On the other hand, all three of the associations intend to shield the tenants from the rising energy costs. Moreover, two of the three associations state that they wish to generate income from the production of sustainable energy.

#### 5.3.3 OPERATIONAL PROCESSES TO IMPROVING THE ENERGETIC QUALITY OF HOMES

The associations all have a different approach to improving the energetic quality of the housing stock. One association integrates the energetic improvement in its standard work processes when constructing new homes and performing major maintenance. Another association outsources the development of the measures and starts a pilot project in six complexes. Another association that outsources its development projects, also outsources a sustainable energy project.

#### 5.4. CONCLUSION DIAGNOSIS PHASE

In this section the main conclusion of chapter 3, 4 and 5 are presented.

In chapter 3 'The Housing Association' the main conclusion is made that the housing associations have changed in a social, hybrid organization in a quasi-market. Because of this the housing associations received other objectives. The goal is not only to provide affordable rents, but to provide affordable housing. From this perspective, the housing association has got a social responsible for the manageability of the housing costs of its tenants. The housing costs include the costs of energy. Therefore energy related issues or projects associated to the housing stock belong to the housing association.

In chapter 4 'Investments in the housing stock by associations' the main conclusion that can be drawn is, that since social returns are difficult to measure objectively, housing associations are likely to be guided by financial returns. When the energetic quality of existing housing will be improved, the (financial) benefits following the improvement are for the housing associations tenants. The housing association will bear the cost of the investment, but these often do not cover the rent increase. Therefore it is important that housing associations not only consider financial returns when taken investment decisions, but make decisions based on economic considerations. This also implies social return.

In chapter 5 'Investments in the energetic quality of the existing housing stock by associations' the interviewed housing associations approved the statements of chapter 3 and 4. The assessment of investments is mostly justified by financial indicators, because of the internal focus of the housing association. In the future it will be important to assess investments with a broader perspective; the housing association needs to be also externally focused in order to justify investments. Especially, when the investment has got special characteristics like improvements in the energetic quality of the existing housing stock and the environment.

Now we have a clear view of the housing associations and their investment strategies, it is possible to design an instrument, which helps to improve the justification of investment decision making, especially in energy related projects.

## 6. DESIGN OF A BUSINESS CASE

As a social entrepreneur, the association also reviews the market. In dialogue with the parties in society, it identifies social assignments and arranges potential investments. This often relates to complex problems that can only be solved when the various parties contribute towards achieving this. The association must thus ask itself each time: Is this an assignment for us? And will our investment in this provide adequate return? This requires a thorough selection process. An assessment in which not only the own interests in terms of finances and real estate of the association count, but also the added value for the customer, for the tenant and for society.

This chapter describes a business case. Paragraph 6.1 discusses the various definitions and objectives of the business case. In paragraph 6.2 describes the elements of the business case.

### 6.1. DEFINITIONS AND OBJECTIVES OF A BUSINESS CASE

Often, making investment decisions is quite complex. A 'business case' is used in the business world, for example in hospitals and IT companies, as a methodology and document for making decisions. The term business case is not unambiguously defined in the literature. However, authors, such as Dan and Brandon Remenyi and Marty Schmidt, discuss this subject and, in addition to a definition, also provide a framework. For example, these definitions can be distinguished by, either only financial parameters being applicable, or also non-financial parameters being applicable, and by the phase of the plan-do-check-act circle in which a business case can be used. In other words, only to support decision-making beforehand (plan), so that financial resources are made available, or also for the other "plan do check and act" phases. In the following subparagraphs, various definitions and frameworks are reviewed. It will also be stated which definition is relevant for this research.

#### 6.1.1 PRINCE2

The business case has an important position in the project management field. PRINCE2 is a structured method of project management that has developed into a worldwide model. Elements such as strategy, stakeholders, risks and the elaboration of scenarios are clearly set out in the PRINCE2 model. With regard to the business case (OGC 2009), PRINCE2 says: "Projects do not just spring up from nowhere, and a certain need for starting a project must exist within the organisation. Each project has a commercial justification, and within PRINCE2, this is referred to as the business case". The business case describes the assessment of a project on the basis of risks and appraisals of the costs and the benefits.

### 6.1.2 MARTY SCHMIDT

Marty Schmidt (2002) regards the business case as a planning tool for supporting decisions that provides the possible financial results and other consequences for the organisation resulting from a certain action or decision. Schmidt regards the business case as not only being reserved for one management phase, but for all phases (plan, do, check, act). Schmidt has not developed a specific business case model. Instead, he defines 6 points that can be checked:

1. Are the objective and the scope clear?
2. Are the cash flows plotted against a timeline?
3. Does the case present the assumptions and methods on which the costs and benefits are based?
4. Have all of the important costs and benefits been included?
5. Have the critical success factors been mentioned?
6. Have the risks been identified and are they measurable?

Schmidt also emphasizes the importance of scenario analysis. For example, comparing the intended business scenario with the so-called zero-scenario (business as usual).

### 6.1.3 DAN AND BRANDON REMENYI

Remenyi and Remenyi (2009) have a wider view of the business case, namely: “the justification for following a course of action in an organisational context in relation to the objectives of the relevant organisation”. In this definition, non-financial aspects also play an important role. According to Remenyi and Remenyi, a business case has two different purposes. First of all, it is the basis for making a decision about whether or not to invest in a project. Secondly, the business case occupies centre stage during the development a project, and in this context, the business case can contribute to (Remenyi & Remenyi, 2009):

- The development of knowledge within the organisation in relation to the investment;
- Creating a basis;
- Making the risks transparent and drawing up the necessary precautionary measures in order to minimise the risk or counteract the effects if it actually occurs.

By describing the business outcome (including an estimation of the financial costs and benefits), the strategic alignment, the stakeholders, the technology to be used and the project risks, a business case provides the information that is required for the aforementioned objectives.

#### 6.1.4 BUSINESS CASE RELEVANT FOR THIS RESEARCH

In the previous subparagraphs the various definitions, known in literature, of business cases are described. In this subsection, the application of the Remenyi and Remenyi (2009) definition of a business case in this research will be explained.

By virtue of the private character and the public interest, the present association is regarded as a social enterprise or hybrid organisation operating in a quasi-market (Chapter 3, The Association). The association must, by virtue of its social and hybrid character, constantly provide public justification of the effectiveness of its conduct, the results, and about what has and has not been done.

The definition and framework of Remenyi and Remenyi (2009) makes it possible to provide public justification regarding the planned investment. To get public justification it is crucial to give a transparent insight into the outcomes of an investment. The outcomes of an investment are emphasised in the definition of a business case by Remenyi and Remenyi (2009). In the definitions of Prince2 (2009) and Marty Schmidt (2002) the input, instead of the outcomes, is emphasised. To be accountable it is important to give an insight in the project risks related to an investment. In the definition and format of the business case of Remenyi and Remenyi (2009) risks take a central, connecting place.

The definition and framework of a business case of Remeny and Remenyi (2009) best meets the character of the housing association and its investment issues. However, this definition and framework are based on different sector, which is why the framework in chapter 7 is made applicable so as to reflect investment in the improvement of the energetic quality of housing by housing associations.

## 6.2. FRAMEWORK OF A BUSINESS CASE

In the previous paragraph the application of the definition and framework of Remenyi and Remenyi is explained. In this paragraph the framework of the business case will be clarified.

In accordance with the definition from Remenyi and Remenyi (2009), the general framework of a business case is as follows:

- The business outcome; A description of the intended investment results constitutes an important element of a business case. A description of the intended results forms the basis, on which the rest of the business case is built. By describing the intended outcomes prior to making the investment, the effectiveness of the investment can be determined later.
- Strategic Alignment; The essence of conducting economic business is choosing the best alternative. An organisation must also make an optimal choice from the relevant alternatives. This means that the chosen alternative must optimally meet the objectives of the organisation. Moreover, the investment must be conducive with the overall organisational strategy. When an investment contributes to the organisational strategy, we talk in terms of strategic alignment.
- Stakeholders; Stakeholder' knowledge and management is an important element of a business case. According to Bryson, a lack of information about and care for stakeholders is a kind of error in thinking and acting that too often and too predictably results in poor performance, outright failure, or even disasters (Bryson, 2004). In order to know and understand the requirements and motivations of the interested parties, it is important to identify the relevant interested parties and to evaluate their interests in terms of how they will react to the change brought about by the project.
- Technology Assessment; An investment will usually have a technological dimension. Choosing the correct technology is not as easy as it sounds. It is therefore important to map the technical options and to research the feasibility and manageability.
- Project risks; Acquiring an insight into risks occupy centre stage during the development of a business case. Risks can be defined as the likelihood that the actual results differ from the intended results (Correia, 1989). Risks must be identified and recorded early in the process. As soon as the risks have been identified, the risks can be positioned in a risk matrix.



Figure 6.1 provides an overview of the business case. The five elements are linked to each other via the project risk element. The project risk element is thus the central topic within the business case. The elements are briefly explained in the following subparagraphs.

In chapter 7, the framework will be made applicable to reflect the justification of investment in the improvement of the energetic quality of the housing stock by housing associations. The elements of the framework will be described according to a fixed pattern. This pattern consists of an introduction, method and statement.



**FIGURE 6.1: AN OVERVIEW OF THE BUSINESS CASE  
(REMENYI & REMENYI, 2009)**



## 7. BUSINESS CASE

The aim of the research is to develop an instrument that provides insight into, and supports in making, investment decisions by housing associations. In this research the focus is on investments to improve the energetic quality of existing housing stock of housing associations. The aim is to keep housing costs manageable for Dutch tenants. In chapter 6 the business case framework of Remenyi and Remenyi (2009) was described. The definition and framework of Remenyi and Remenyi (2009) makes it possible for the housing association to provide public justification concerning the planned investment.

In this chapter the business case of Remenyi and Remenyi (2009) is made applicable for investments in the energetic quality of the existing housing stock of housing associations. Paragraphs 7.1 to 7.5 describe the five elements of the business case. The elements of the business case will be described according to a fixed pattern (see also figure 7.1). This pattern consists of an introduction, a method and a statement. The introduction gives a short explanation of the element of the business case. The method provides a method which can be used. A lot of methods are available. In this business case design a method is chosen based on ease, applicability and familiarity. An expert panel has given its approval of the methods elaborated. Besides, the aforementioned arguments, it was not in the scope of this research to investigate all possible methods which can be used in this business case. The statement describes the output of each element. In paragraph 7.6 the main conclusions of the expert validation will be elaborated. An overall picture of the business case is provided in paragraph 7.7.

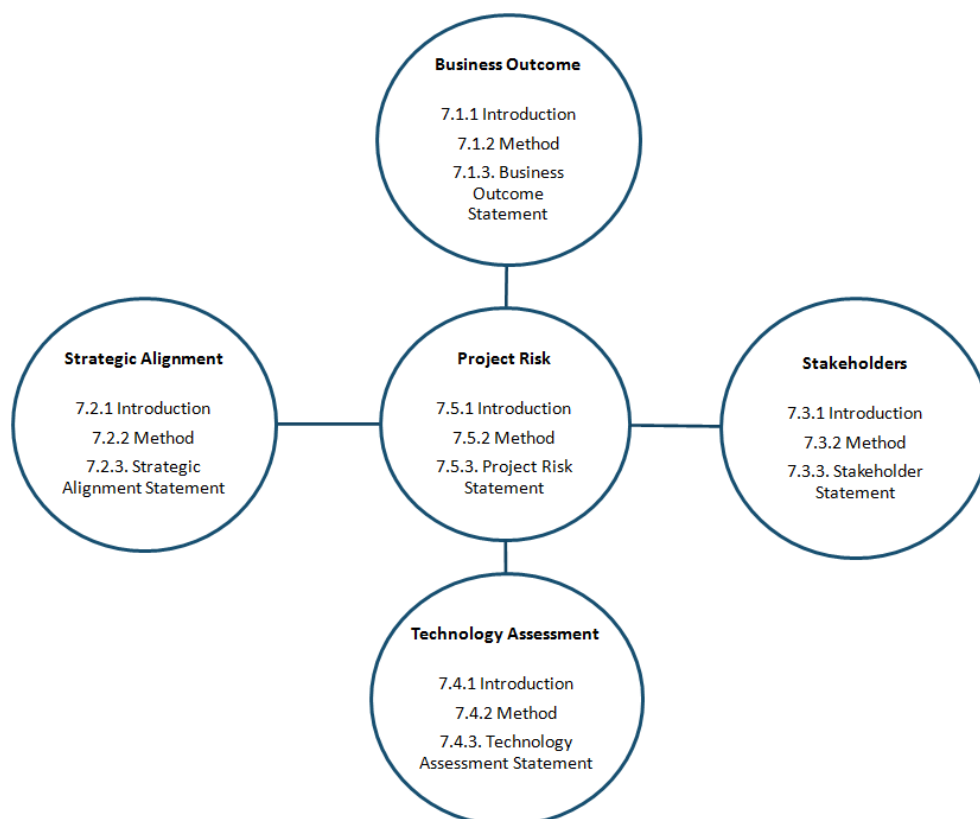


FIGURE 7.1: ELEMENTS OF THE BUSINESS CASE (INCLUDING OUTLINE)

## 7.1. Business Outcome

The purpose of this section of the business case is to identify and describe the investment outcomes. In the Business Outcome Statement the investment outcomes, which can be seen as the contribution to the objectives of the housing association, need to be described.

In order to describe the Business Outcome Statement an introduction is given and a method is elaborated which can be used to identify the outcomes. The method described in section 7.1.2 can be used in order to describe the Business Outcome Statement. There are other methods that also can be used, such as Outcome Management (Treasury Board of Canada Secretariat, 2009). The method of input-output-outcome, with use of a system dynamics model, was chosen because of its ease and applicability and the ability to identify and measure effects of the investment over a certain time period.

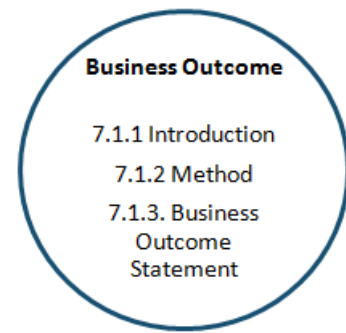


FIGURE 7.2: OUTLINE OF ELEMENT 'BUSINESS OUTCOME'

### 7.1.1 INTRODUCTION

A description of the intended results of an investment constitutes an important element of a business case. A description of the intended results forms the basis, on which the rest of the business case is built. By describing the intended outcomes prior to the actual investment, the effectiveness of the investment can be determined later.

Remenyi and Remenyi (2009) state that the intended outcomes for the investment can be described at different levels. In this business case the outcomes are described by the objectives of housing associations. A housing association has got two externally oriented objectives: customer objectives and social objectives. In addition, on behalf of the continuity of the housing association, two internal objectives are set: financial objectives and property objectives (Aedes, 2008).

### 7.1.2 METHOD

In this section a method is described to identify the investment outcomes (see figure 7.3). To do this, an understanding of the input, output and outcome of each alternative should be provided. In the next section the outcome is elaborated. The effects of the outcome can relate to the objectives of the housing association and are divided into external effects (social and customer), as well as into internal effects (financial and property). To identify the effects a system dynamics model is provided.

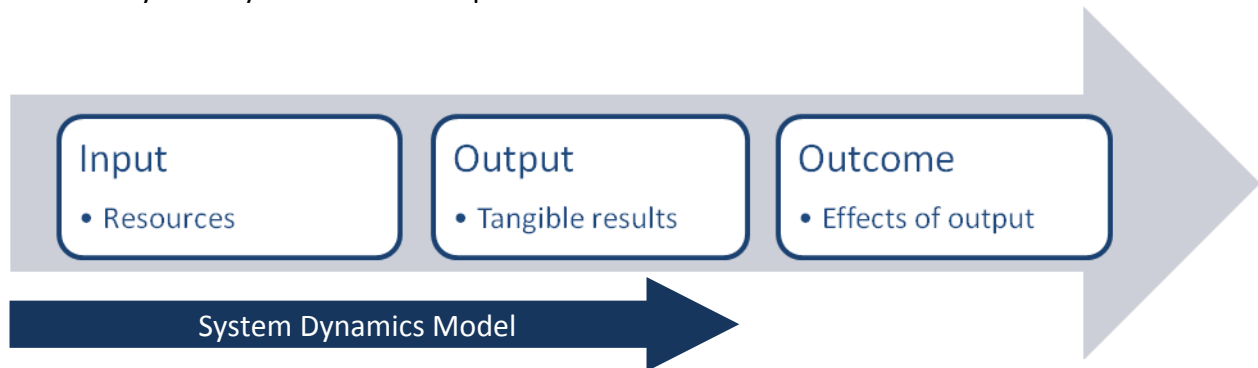


FIGURE 7.3: INPUT, OUTPUT AND OUTCOME

#### **Input, Output and Outcome**

The input consists of the resources that the housing association makes use of for its activities. These resources could be tangible (f.e. financial, personnel and material resources) or intangible (f.e. goodwill and the available network).

The output consists of the tangible results that the housing association through its activities produces and delivers to its customers and society in general. The output of an investment could concern the property of the housing association or the customer service. To deliver the output, the housing association makes use of its resources: the input.

The outcome consists of the effects of the investment on the housing associations objectives. The housing association continuously makes policy. In the policy documents the objectives of the housing association are described. The housing association tries, through its activities, to achieve its objectives. Although the objectives that housing associations pursue are not fixed, most housing associations recognize the following objectives (Aedes, 2008):

- External objectives (social and customer objectives);
- Internal objectives (financial and property objectives).

#### **System Dynamics Model**

System dynamics is a methodology and mathematical modeling technique for framing, understanding, and discussing complex issues and problems. Originally developed in the 1950s to help corporate managers improve their understanding of industrial processes, system dynamics is currently being used throughout the public and private sector for policy analysis and design (Radzicki & Taylor, 2008).

## EXTERNAL EFFECTS (SOCIAL AND CUSTOMER)

Many housing associations see the realization of social objectives as their main task. This is broadly supported. The 'core business' of the housing association, renting out affordable housing to their target group, is part of the realization of social objectives. However as a social entrepreneur, the housing association wants to achieve added value on other social fronts. The modern housing association is active in welfare, healthcare, social real estate, public spaces, creation of social capital, work projects, etc.

As noted above, the core business of the housing association is still the rental of affordable housing to their target groups. In recent years the customer became more important. Yet the customer interest could be interpreted as an objective in itself. Although housing associations do not have to compete for customers, serving customers well is an important goal for housing associations. Delivering value that customers appreciate is in the nature of housing associations (Lemmens, 2011).

For many housing associations a house is simply the tangible, phsysical entity that they rent out. But for a consumer a house is more than just the tangible, physical entity that they rent. In order to actively explore the nature of a house further, let's consider it as three different products: the core product, the actual product, and the augmented product (figure 7.4). These are known as the 'Three Levels of a Product' (Zikmund and d'Amico, 1995). So, what is the difference between the three products, or more precisely 'levels?' The core product is not the tangible, physical product. You can not touch it. That is because the core product is the benefit of the product that makes it valuable to you. So with the house, the benefit is a place to stay, sleep, wash, cook etc. The actual product is the tangible, physical product: the house itself. You can get some use out of it. The augmented product is the non-physical part of the product. It usually consists of lots of added value, for which you may or may not pay a premium. So when a consumer rents a house, part of the augmented product would be the customer service support offered by the housing association.

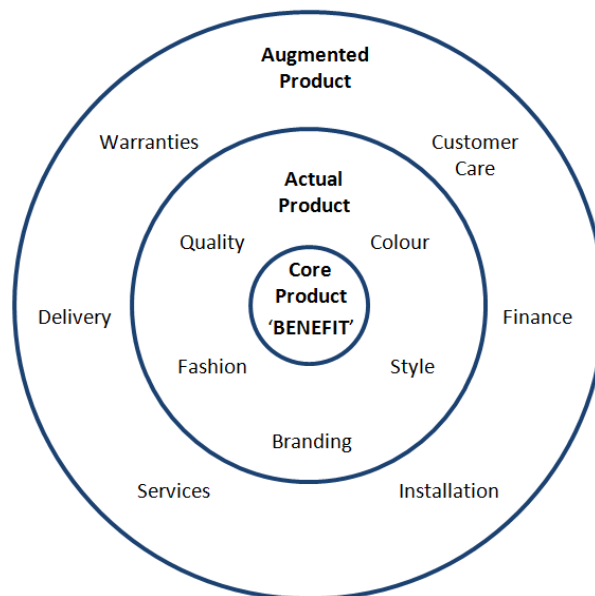


FIGURE 7.4: THE THREE LEVELS OF A PRODUCT (ZIKMUND AND D'AMICO, 1995)

As mentioned before a system dynamics model has been developed to identify external effects of the investment over a certain time period, and is a tool to elaborate the outcome. The model describes how the quality of the housing stock, indirectly influences the affordability and lettability of the housing stock. The lettability of the housing stock indicates, together with investment potential and desired quality, the need to increase the quality of the housing stock. The affordability of a dwelling is determined by the housing quote, which concerns the total housing costs (sum of fixed and additional housing costs) divided by the disposable income.

Figure 7.5 shows a balancing loop (-). A balancing loop attempts to move some current state (the way things are) to a desired state (goal or objective) though some action. For example: when the quality of the existing housing stock increases, the lettability of the existing housing stock increases. When the lettability of the existing housing stock increases, the need to improve the quality of the existing housing stock decreases. What implies that the quality of the existing housing stock, remains the same or increases less.

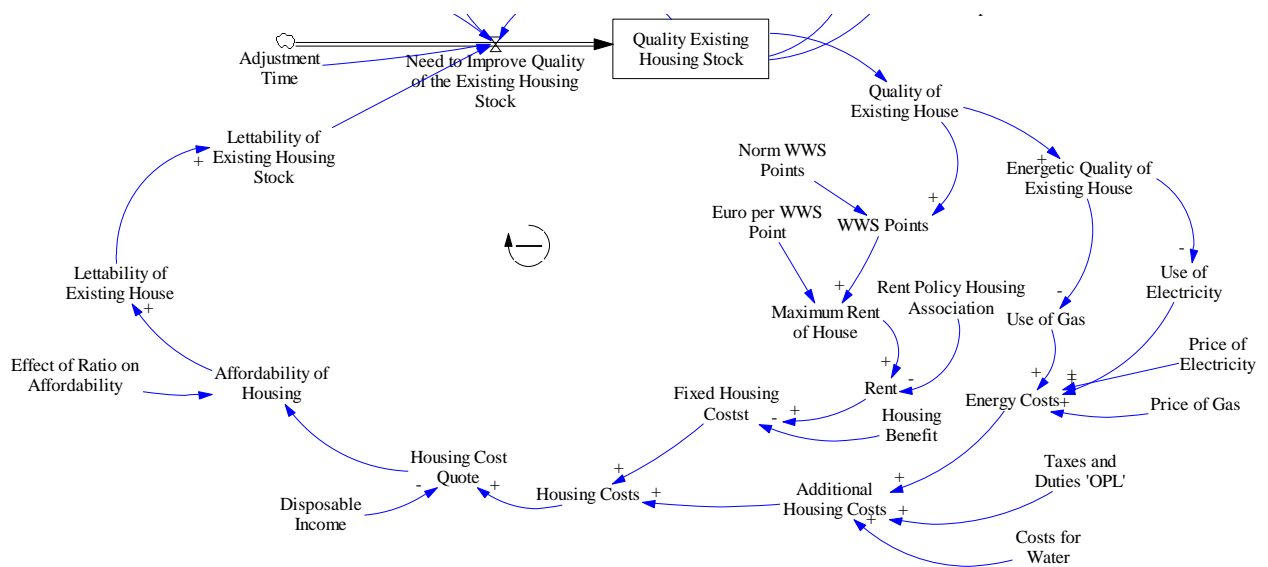


FIGURE 7.5: EXTERNAL EFFECTS (EXTRACT SYSTEM DYNAMICS MODEL)

Appendix 4 provides the complete System Dynamics model. Appendix 5 provides a description of the elements and symbols of the System Dynamics model.

### Example 'Customer Objective'

One of the housing associations objectives are customer objectives. The affordability of housing has got a direct effect on the customer. This makes the affordability of housing one of the effects related to the customer objectives of the housing association. The housing cost quote, which concerns the fixed and additional housing costs in relation to disposable income, provides in this and other researches (see also paragraph 1.3.1) a measurement tool for the affordability of housing.

In this example the impact of the energy prices on the affordability of housing is illustrated by two graphs, derived from the system dynamics model (figure 7.5). In this example the energy consumption, as well as the fixed housing costs (rent minus housing benefit) and disposable income are constants. Solitary the price of energy, gas and electricity, has changed in order to show the impact of the energy price on the affordability of housing.

The graphs show two datasets. The first dataset 'Pricelevel July 2011', the blue line, starts from the assumption that the price of electricity is 0.0884 euro per kWh and the price of gas is 0.61 euro per m3. In the second dataset 'Increase of Energy Prices', the red line, the price of electricity is 0.1 euro per kWh and the price of gas 1.0 euro per m3.

The first graph (figure 7.6) shows us that the housing cost quote increases, see red line, when the energy prices increase. The second graph (figure 7.7) shows us that the affordability of housing decreases when the price of energy increases.

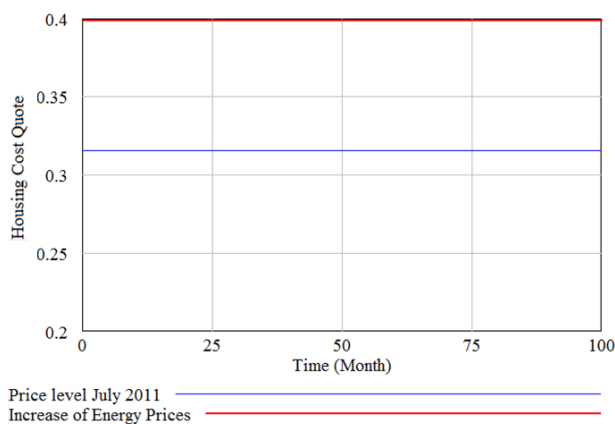


FIGURE 7.6: HOUSING COST QUOTE

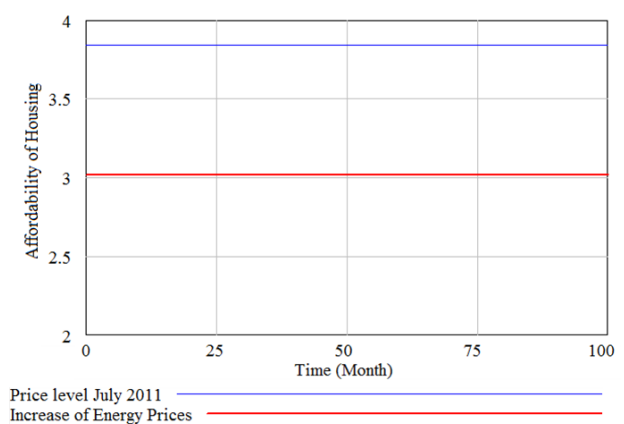


FIGURE 7.7: AFFORDABILITY OF HOUSING



## INTERNAL EFFECTS (FINANCIAL AND PROPERTY)

Housing associations are independent organizations, and responsible for their financial results. A key objective is therefore the maintenance of a solid financial organization. Ensuring continuity is a significant financial value. At the same time a housing association searches for an, as large as possible, (financial) investment potential in order to do investments that deliver high customer and societal value.

The system dynamics model (figure 7.8) describes how the quality of the housing stock, indirectly influences the company value and investment potential. The company value is derived from future cash flows the property produces. The company value is determined using the net present value method. This net present value method is an applied method for determining the value of a housing association (Gruis, 2001).

Figure 7.8 shows a balancing loop (-). A balancing loop attempts to move some current state (the way things are) to a desired state (goal or objective) though some action. For example: when the quality of the existing housing stock increases, the company value increases as well as the investment potential. When the investment potential increases, more investments in the existing housing stock will take place. Over time, the quality of the existing housing stock will reach the desired state, which means that the need to improve the quality of the existing housing stock remains the same or increases less.

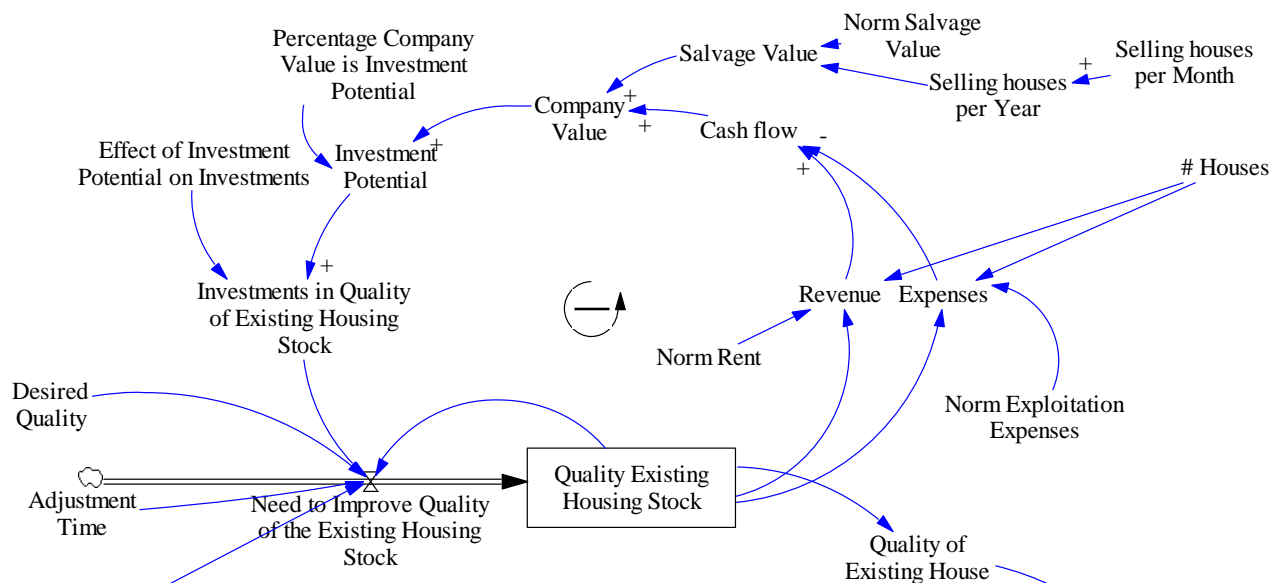


FIGURE 7.8: INTERNAL EFFECTS (EXTRACT SYSTEM DYNAMICS MODEL)

Appendix 4 provides the entire System Dynamics model. Appendix 5 provides a description of the elements and symbols of the System Dynamics model.

### EXAMPLE 'Financial Objective'

One of the housing associations objectives are financial objectives. The cashflow of a housing association has got a direct effect on the investment potential. Therefore the cashflow has got an effect on the financial objectives of the housing association. In this example the impact of the quality of the housing stock on the cashflow of the housing association is illustrated by two graphs, derived from the system dynamics model (figure 7.8). In this example the norm rent and norm exploitation expenses are constants. Solitary the quality of the housing stock has been changed in order to show the impact of the quality of the housing stock on the cashflow of the housing association.

The graphs show two datasets. The first dataset 'Basic Quality (1)', the red line, the quality of the housing stock is set on level 1, which stands for basic quality. In the second dataset 'High Quality (5)', the blue line, the quality of the housing stock is set on level 5, which stands for high quality.

In the first graph (figure 7.9) the cashflow is illustrated of the two datasets. The second graph (figure 7.10) illustrates the revenues and expenses of the housing association. The red line, which illustrates the objective of the housing association to offer houses with a basic quality, is a constant. No investments take place to improve the quality, which implies no increase in revenues (rents) and no decrease of expenses (maintainance). The cashflow remains the same. The cash flow of the blue line increases, due to the investment in the quality of the existing housing stock, the revenues increase and the expenses decrease. The blue line has got a nod, due to the adjustment time to improve the quality of the housing stock.

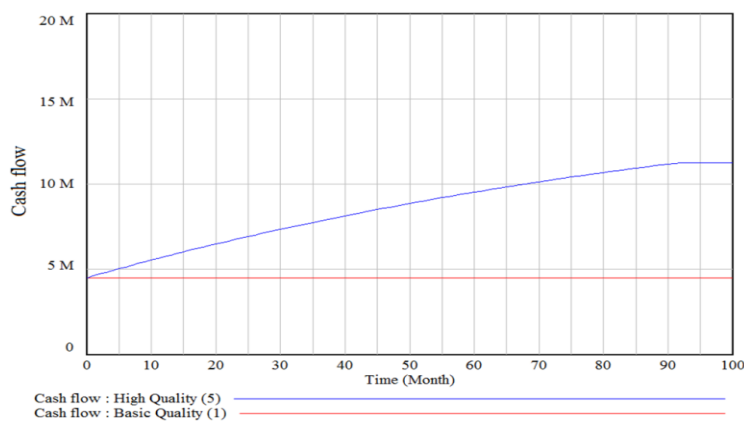


FIGURE 7.9: CASHFLOW HOUSING ASSOCIATION

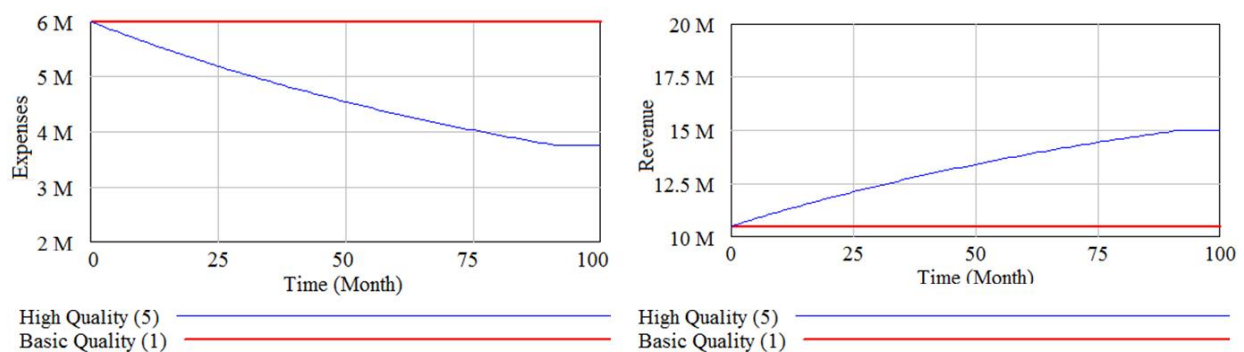


FIGURE 7.10: EXPENSES AND REVENUES HOUSING ASSOCIATION

### 7.1.3 BUSINESS OUTCOME STATEMENT

The Business Outcome Statement gives a clear expression of the business objective and outcomes of an investment.

First, the input, output and outcomes need to be identified (table 7.1). Next the outcomes must be elaborated. Second, the identified outcomes give a contribution to the objectives of the housing association. Table 7.2 makes it possible to divide the outcomes to the different objectives of the housing association.

TABLE 7.1: INPUT, OUTPUT AND OUTCOME

	Input	Output	Outcome
	<i>Resources of housing association</i>	<i>Tangible results</i>	<i>Desired effects of the output</i>
<b>Alternative</b>	For example: <ul style="list-style-type: none"> <li>- Available Network</li> <li>- Financial resources</li> </ul>	For example: <ul style="list-style-type: none"> <li>- HR++ glass</li> <li>- Solar panels</li> </ul>	For example: <ul style="list-style-type: none"> <li>- Manageable energy costs</li> </ul>

TABLE 7.2: OUTCOME ELABORATE

TABLE 7.2: OUTCOME ELABORATE				
	External effects		Internal effects	
	Effects on...			
	Society	Customer	Finances	Property
Alternative	For example: - Lower CO2 emissions	For example: - Reduction of energy costs	For example: - Rent increase	For example: - Distinctive units in portfolio

## 7.2. Strategic Alignment

The purpose of this part of the business case is to determine whether there is a strategic alignment. Strategic alignment occurs when the proposed investment contributes to the organizational strategy.

In order to describe the Strategic Alignment Statement an introduction is given and a method is elaborated. In section 7.2.2 the management styles of Gruis (2007) are used to describe the organizational strategy. Next an assessment of the proposed investment will take place, in order to determine the degree of alignment.

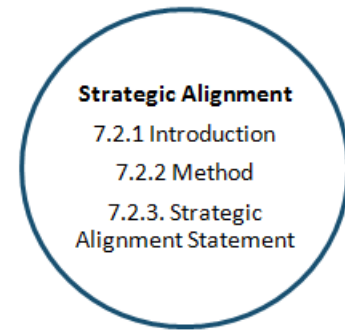


FIGURE 7.11: OUTLINE OF ELEMENT 'STRATEGIC ALIGNMENT'

There are other methods that also can be used, such as Project Portfolio Management (Van der Spoel, 2007). However in this research the management styles of Gruis (2007) are used, because the housing association sector is already familiar with it. It is used previously in researches of Aedes (Aedes, 2007).

### 7.2.1 INTRODUCTION

The essence of economic act is choosing the best alternative. The investment issue is a problem of choice. The organization must choose the best alternative. This means that the chosen alternative best meets the objectives of the organization. The investment must also fit into the overall organizational strategy. When an investment contributes to organizational strategy, it is called strategic alignment. When the organizational strategy is known, it could be determined whether the business outcome is consistent with the strategy.

### 7.2.2 METHOD

To test whether there is a strategic alignment, the organizational strategy has to be known first. Organizational strategy consists of three parts (Aedes, 2008), namely:

- Social identity;
- Strategic focus;
- Tasks and roles.

The parts of organizational strategy are expressed in the management styles, figure 7.12, defined by Gruis (2007). The management styles are described in chapter 3.

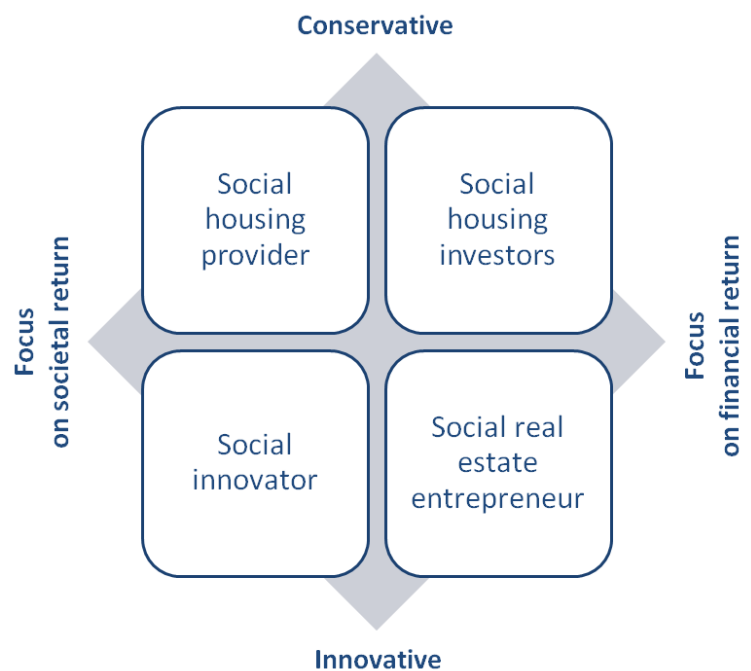


FIGURE 7.12: MANAGEMENTSTYLES (GRUIS, 2007)

The social identity concerns the current and desired social profile of the housing association. The social identity says something about the attitude with which the housing association shall meet its social environment. This includes things like how wide the housing association functions (the playing field), how one wants to measure their own success, the degree of influence on its policy that the housing association gives to local stakeholders, the degree of openness with which the housing association communicates with the stakeholders and how far the partnership to the society goes.

The strategic focus gives direction to the policy of the housing. The strategic focus of a housing association can be characterized on the basis of answers to the following two questions (Aedes, 2008):

1. What kind of return does the housing association strives after?
2. What type of proposition does the housing association offer?

Four types of return can be distinguished: financial, property, customer and social return. The proposition has a tri-partition. The proposition could consist of real estate, housing and social services.

### 7.2.3 STRATEGIC ALIGNMENT STATEMENT

The Strategic Alignment Statement must give an understanding in which way the investment fits into the overall organizational strategy. By rating the conservativeness, innovativeness, focus in social return and focus on financial return for the housing associations organizational strategy and the investment, strategic alignment may or may not be demonstrated. Table 7.3 can be used to rate the different elements as noted above. Strategic alignment can be showed as a traffic light, green when the organizational strategy and investment are consistent, orange for partly consistent and red for not consistent.

TABLE 7.3: STRATEGIC ALIGNMENT

	Conservative	Innovative	Focus on social return	Focus on financial return
<b>Housing Association</b>  <i>On a scale from 1 (very low) to 10 (very high)</i>	For example: 3	For example: 8	For example: 7	For example: 7
<b>Alternative</b>  <i>On a scale from 1 (very low) to 10 (very high)</i>	For example: 5	For example: 8	For example: 7	For example: 3
<b>Strategic Alignment</b>  <i>Consistent = green Partly consistent = orange Not consistent = red</i>	For example: <b>ORANGE</b>	For example: <b>GREEN</b>	For example: <b>GREEN</b>	For example: <b>RED</b>

### 7.3. Stakeholders

In this section of the business case stakeholders identification, analysis and positioning take place. The purpose of this part of the business case is to describe the Stakeholder Statement.

In section 7.3.2 the stakeholder identification, analysis and position technique of Bryson (2004) is elaborated. There are other techniques that also can be used to identify, analyze and position stakeholders, such as the stakeholder analysis of Varvasovszky and Brugha (2000). However in this research the technique of Bryson (2004) was chosen because of its ease and applicability. Besides that this technique is lectured at Eindhoven University of Technology.



FIGURE 7.13: OUTLINE OF ELEMENT 'STAKEHOLDERS'

#### 7.3.1 INTRODUCTION

Stakeholders are individuals, groups or organizations that can place a claim on the organization's attention, resources and / or output, or is affected by that output. Stakeholder identification and positioning are important aspects of a business case, because a lack of information and concern for stakeholders leads too often and too predictable to poor performance, outright failure or even disaster (Bryson, 2004).

Social enterprises, which also include housing associations, need to be accepted by society in order to deliver good results (SER, 2005). Therefore, it is very important for the housing association to identify and position their stakeholders. The Socio-Economic Council (SER) indicates that this acceptance cannot be derived from history, but it must be earned and realized each time, in interaction with the social environment (SER, 2005).

### 7.3.2 METHOD

A basic identification and analysis technique is described by Bryson (2004). It offers a quick and useful way of identifying stakeholders and their interests, clarifying stakeholders' views towards the project, identifying some key strategic issues and beginning the process of identifying coalitions of support and opposition. The technique involves several steps and exercises (figure 7.14).

- Brainstorm the list of potential stakeholders. Along the following lines, stakeholders can be identified:
  - Existing relationships; inventory of parties with which the housing association has already a relationship with.
  - Target groups and themes; identify potential spokespersons for a group or societal interest from target groups, themes and signals in for example the media.
  - Policy cycle; identify which parties can contribute to the different phases in the policy process.
- Analyze the identified stakeholders;
- Position the analyzed stakeholders in a Power versus Interest Grid.

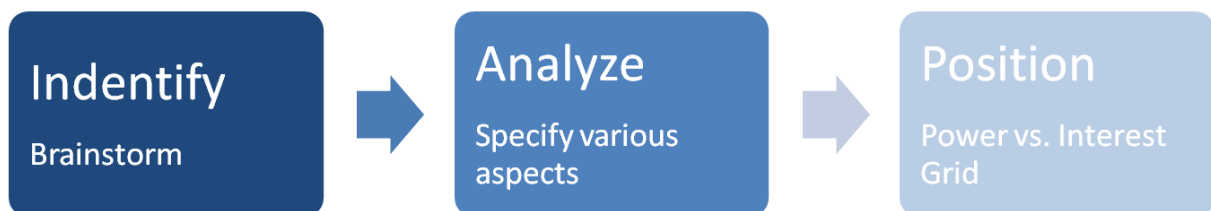


FIGURE 7.14: IDENTIFICATION, ANALYSIS AND POSITIONING OF STAKEHOLDERS

A power versus interest grids is an effective way to position stakeholders. It helps to determine which stakeholders' interests and power bases must be taken into account. Power versus interest grids display stakeholders on a two-by-two matrix where the dimensions are the stakeholder's interest in the project or organization, and the stakeholder's power to affect the project or organization. Four categories of stakeholders result: players who have both an interest and significant power; subjects who have an interest but little power; context setters who have power but little direct interest; and the crowd which consists of stakeholders with little interest or power.

### 7.3.3 STAKEHOLDER STATEMENT

The Stakeholder Statement must give an insight in the different stakeholders and their power and interest. When the stakeholders are identified in a brainstormsession, for each stakeholder the stakeholder information card (table 7.4) must be filled in.

After filling in the stakeholder information card a power versus interest drawn, in order to identify the key stakeholders (table 7.5). With a colored dot, the stakeholders can be positioned. The dot must indicate the stakeholders attitude towards the project. Green for positive attitude, orange for neutral attitude and red for negative attitude.

TABLE 7.4: STAKEHOLDER INFORMATION CARD

(Stakeholder's name)		
Specify:	Rate or Rank:	
(Potential) Contribution / Role of Stakeholder For example: <ul style="list-style-type: none"> <li>Resident</li> </ul>	Stakeholders attitude towards the project Use colored dots to indicate a stakeholder judgment of good (green), fair (yellow) or poor (red).	GREEN
Concern of Stakeholder For example: <ul style="list-style-type: none"> <li>Reduction of energy costs</li> <li>Equil housing costs</li> </ul>	Receptive for influence from housing association. Use colored dots to indicate a stakeholder of good (green), fair (yellow) or poor (red).	GREEN
Criteria which the Stakeholder would use to judge the project For example: <ul style="list-style-type: none"> <li>Financial criteria</li> </ul>	Importance of Stakeholder for the project (or organization). Use colored dots to indicate a stakeholder importance of good (green), fair (yellow) or poor (red).	ORANGE
How to influence the Stakeholder For example: <ul style="list-style-type: none"> <li>Co-creation</li> </ul>	Interest of Stakeholder in project (or organization). Rate the interest of the stakeholder in project of 1 (very low) to 10 (very high).	9
Longer-term issues with Stakeholder For example: <ul style="list-style-type: none"> <li>None</li> </ul>	Power of Stakeholder to influence the project (or organization). Rate the power of the stakeholder in project of 1 (very low) to 10 (very high).	6



TABLE 7.5: POWER VERSUS INTERST GRID

Interest	High	Subjects	<ul style="list-style-type: none"> <li>• <b>RESIDENT (EXAMPLE)</b></li> </ul> Players
	Low	Crowd	Context Setters
		Power	
		Low	High

#### 7.4. TECHNOLOGY ASSESSMENT

In this section of the business case the technology assessment takes place. The purpose of this part of the business case is to describe the Technology Assessment Statement.

In section 7.4.2 the concepts of Bax (1993) and Vrakking (1990) are used to assess the technology. The concept of Bax (1993) is used, because it describes the technology assessment on a strategic level. In regard to the applicability the concept of Vrakking (1990) is elaborated. There are other techniques that also can be used to assess the technology, like the technology assessment of Eijnatten (2010) who describes the assessment process.

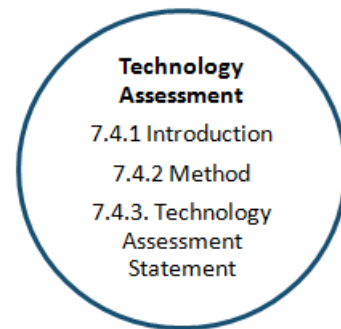


FIGURE 7.15: OUTLINE OF ELEMENT 'TECHNOLOGY ASSESSMENT'

##### 7.4.1 INTRODUCTION

A technology assessment from a business perspective is a preliminary evaluation of technologies and their future potential in relation to the context of an organization. It helps to assess the added value of technology and its possibilities for the housing association.

The goal of this assessment is to find the technology for which it is most likely that a solution based on that technology provides the best solution. The best solution is a solution that meets all requirements with the least specification effort (Eijnatten, 2010).

##### 7.4.2 METHOD

The technology assessment is based on the Domain Theory of Bax (1993). Domain Theory is based on system theory. It systemizes domains of knowledge and structures architectural phenomena in hierarchically levels. According to Bax (1993) the phenomena of architecture can be interpreted as concepts. Bax (1993) described twelve concepts and grouped them on six levels. One of the levels is called 'Planning'. The Planning level consists of three concepts: physical, social and economic. When an technology assessment takes place, not only the physical concepts matter, but the social feasibility and economic manageability concepts should be taken in account.

The physical concept consists of the technical realizability of the investment. The social concept consists of the impact of the investment on the consumer and society. The economic concept consists of the manageability of the investment for the housing association.



FIGURE 7.16: TECHNOLOGY ASSESSMENT

Vrakking (1990) has developed an eight step technology assessment method. The concepts of Bax (1993) are made applicable by use of Vrakking (1990) in order to make a Technology Assessment Statement (see paragraph 7.4.3).

#### 7.4.3 TECHNOLOGY STATEMENT

The Technology Statement helps to assess the technological aspect of the investment in relation to its environment. The steps in table 7.6 can help to give an insight in the projects' makeability, feasibility and manageability.

TABLE 7.6: TECHNOLOGY ASSESSMENT

Technology Assessment	
Steps	Explanation
Inventory of the technology in the housing association.	Describe the different value chains in the housing association. What kind of technology is used in the housing association?
Inventory of trends in the industry.	What trends in the energy industry are indentified, especially in terms of technology that you can use?
How far are the technologies mentioned in the previous step already developed?	Classify the technologies for example in embryonic, growing, mature or obsolete.
What is the importance of technologies for the competition?	Divide the technologies into basic technologies and key technologies.
What are the technology success factors of the housing association?	What should be good from the perspective of customers, other stakeholders, they want to continue to consider you as a success?
How is the success of the housing association determined by the technologies?	What technologies determine the effect of a success factor?
Analysis of the technological position.	Check which of the basic or key technologies determine what percentage a particular success.
Wat are new opportunities for the housing association?	What new technologies can be used by the housing association?

## 7.5. PROJECT RISK

The element Project Risk takes a central place in the business case. In this section of the business case project risks identification, analysis and positioning take place. The purpose of this part of the business case is to describe the Project Risk Statement.

In section 7.5.2 the qualitative risk assessment technique is elaborated. There are other techniques that also can be used to identify, analyze and position stakeholders, however during the expertmeeting was decided to use the qualitative risk assessment technique, because of its ease and applicability. Besides that, the qualitative risk assessment technique is commonly and widely used in private and public organizations.

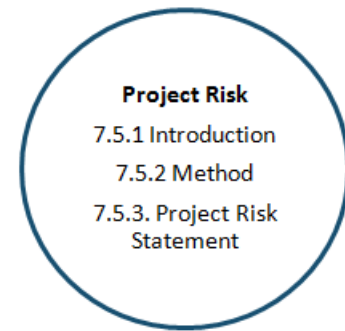


FIGURE 7.17: OUTLINE OF ELEMENT 'PROJECT RISKS'

### 7.5.1 INTRODUCTION

Acquiring an understanding of the risks involved in a project is a central part of developing a comprehensive business case. The risk profile of the proposed investment needs to be clearly stated and if it is too high the business case should not be approved. Although it is not essential that a full risk analysis be performed in order to produce a business case, a review of the more important risk issues should be addressed and incorporated into the investment business case.

Risk is a challenging concept to define, understand and ultimately to manage. This is primarily because the idea of risk can mean different things to different people. In terms of a formal definition, risk is described as 'The probability that the actual input variables and the outcome results may vary from those originally estimated' (Correia, 1989).

The identification and analysis of project risk can be a highly intuitive art. However, there are some frameworks and guidelines to help assess and manage investment project risks. One of these frameworks is COSO. COSO describes and defines different elements of an internal control system. It connects organizational objectives, control elements and organizational activities (COSO, 2004). COSO is specified on organizational risks and not on project risks. A general framework to identify, analyze and position project risks can be found in paragraph 7.5.2.

### 7.5.2 METHOD

In this section a method is elaborated to identify, analyze and position the projects' key risks (figure 7.18). The method consists of several steps and exercises.

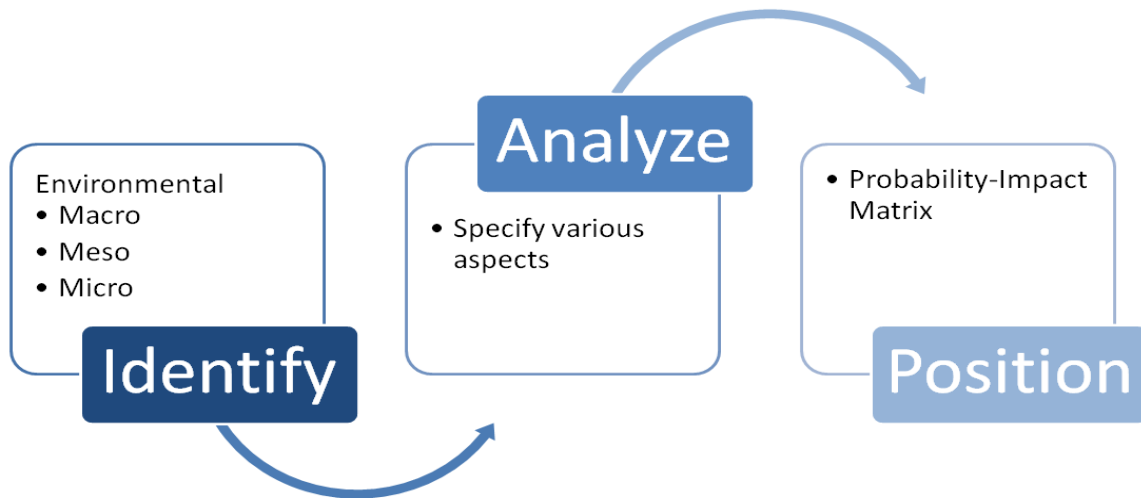


FIGURE 7.18: IDENTIFY, ANALYSE AND POSITION RISKS

A method to identify risks is creating an environment analysis. First, the macro environment will be explored, with the aim of identifying risks due to trends. The macro environment can be analyzed by the DESTEP method. DESTEP is an abbreviation for demographic, economic, social / cultural, technological, ecological and political / legal factors. Then the meso environment will be analyzed, by use of the five competitive forces of Porter (Porter, 1980). The aim is to identify risks in the immediate environment of the project or organization. The five forces consist of:

- The threat of the entry of new competitors;
- The threat of substitute products or services;
- The bargaining power of customers (buyers);
- The bargaining power of suppliers;
- The intensity of competitive rivalry.

Last the micro environment will be analyzed by the GOTIK-method. The GOTIK-method stands for Money, Organization, Time, Information and Quality.

Also the risks identified in the business case should be incorporated. Once we know what the risks are, we can analyze them. An analysis of the risks of the project is an integral part of the business case, as it is essential that the principal stakeholders have an appreciation of the potential problems that the proposal might face.

### 7.5.3 RISK STATEMENT

The Risk Statement must give an insight in the different risks and their probability and effect. When the risks are identified in a brainstormsession, for each risk the risk information card (table 7.7) must be filled in. After filling in the risk information card a probability versus effect matrix can be drawn, in order to identify the key risks (table 7.8).

TABLE 7.7: RISK INFORMATION CARD

Risk	Risk Element	Impact	Probability	Score	Trigger	Owner	Action
	(Macro, meso or micro environment)	(3 (high), 2 (middle) or 1 (low))	(3 (high), 2 (middle) or 1 (low))	Impact x Probability = Score			
For example: - Contractor goes bankrupt	Meso	2	2	4	Claim on company by other principals	Project-management	Selection criteria

TABLE 7.8: PROBABILITY VERSUS EFFECT MATRIX

Effect	High (3)	3	6	9
	Middle (2)	2	4 CONTRACTOR GOES BANKRUPT (EXAMPLE)	6
	Low (1)	1	2	3
		Low (1)	Middle (2)	High (3)
		Probability		

#### 7.6. EXPERT VALIDATION

The design and development of the instrument is an iterative process driven on value creation. Decisions are made based on value judgments rather than judgments of truth. This means there is always a residual uncertainty regarding the suitability of the instrument (Friedl, 2001). The uncertainty about the suitability of the instrument is as much as possible removed by submitting the instrument to a panel of experts and by processing their comments in the final version of the instrument. This increases the validity of the business case. The expertmeeting has taken place on May 25<sup>th</sup> 2011 at the Eindhoven University of Technology. Appendix 2 gives an overview of the experts.

During the expert meeting, the following matters emerged:

- The business case is a suitable tool for housing association, which supports investment decision making for projects to improve the energy quality of existing housing stock of housing associations;
- The implementation and application of the business case requires attention, due to the corporate culture and business operations of the housing association;
- The business case focuses on investments in the energy quality of existing housing stock, but is according to the expert panel also suitable for other interventions / investment proposals in the housing stock;
- The business case is, in this research, applied to an asset of the housing association. The business case could also be applied to the portfolio (total of assets) of a housing association.

#### 7.7. CONCLUSION

The aim of the research is to develop an instrument that provides insight into, and supports in making, investment decisions by housing associations. In the previous paragraphs the business case framework of Remenyi and Remenyi (2009) was adapted in order to provide an instrument which gives insight into, and supports in making, investment decisions focused on the improvement of the energetic quality of existing housing stock of housing associations. With the aim to keep housing costs manageable for Dutch tenants.

The business case consists of five elements: business outcome, strategic alignment, stakeholder, technology assessment and project risk. For each element an introduction, method and statement was described. The methods provided in the adapted business case are not fixed. This means other methods can be used and can lead to the same statement. However the methods which are provided in the business case are helpfull and simple tools to come to a statement.

In order to increase the validity of the business case, it was submitted to an expert panel on May 25<sup>th</sup> 2011. The expert panel commented that the business case is a suitable tool for making investment decisions regarding the improvement of the energetic quality of the existing housing stock. They also noted that the implementation and application of the business case requires attention, due to the corporate culture and business operations of the housing association.





## 8. FINAL CONCLUSIONS & RECOMMENDATIONS

In this chapter the final conclusions and recommendations of this research will be described. Within the first paragraph the research question will be answered and described. In the second paragraph some recommendations are written with regard to further research on this improvement of the energetic quality of the existing housing stock of housing associations.

### 8.1. FINAL CONCLUSION

The objective of this research was to describe the main aspects of a business case, with the aim of making housing costs manageable, which is generally applicable to energy projects.

To achieve the research objective a research model was developed. This research model existed of a problem, diagnosis and a plan phase. The conclusion will be described using the three phases of this research.

#### **Problem Phase**

In the problem phase, the problem area and the research objectives are determined. The conclusion, based on open interviews with stakeholders and literature survey, was that in the past decade the average Dutch housing costs for tenants increased. This increase is almost completely attributable to the higher energy costs. The Dutch government, Aedes and the Woonbond wishes to keep the housing costs manageable. And, intend to manage the housing costs by promoting energy savings in the existing housing stock. These energy savings relate to building-related energy consumption, in particular, space heating, hot tap water and ventilation. The housing associations sector therefore faces a major investment challenge, with the objective of keeping housing costs manageable for Dutch tenants.

#### **Diagnosis Phase**

Based on a literature review and semi-structured interviews, three main questions are investigated. The main conclusions are provided in this section.

##### *Who is the problem owner, the housing association?*

The housing associations have changed in a social, hybrid organization in a quasi-market. Because of this the housing associations received other objectives. The goal is not only to provide affordable rents, but to provide affordable housing. From this perspective, the housing association has got a social responsible for the manageability of the housing costs of its tenants. The housing costs include the costs of energy. Therefore energy related issues or projects associated to the housing stock belong to the housing association.

##### *What does the current investment policy and stock policy of housing associations look like?*

Since social returns are difficult to measure objectively, housing associations are likely to be guided by financial returns. When the energetic quality of existing housing will be improved, the (financial) benefits following the improvement are for the housing associations tenants. The housing association will bear the cost of the investment, but these often do not cover the rent increase. Therefore it is important that housing associations not only consider financial returns when taken investment decisions, but make decisions based on economic considerations. This also implies social return.

*What does the desired, future investment policy and stock policy look like, with respect to the energetic quality of the existing housing stock?*

The assessment of investments is mostly justified by financial indicators, because of the internal focus of the housing association. In the future it will be important to assess investments with a broader perspective; the housing association needs to be also externally focused in order to justify investments. Especially, when the investment has got special characteristics like improvements in the energetic quality of the existing housing stock and the environment.

### **Plan Phase**

After finishing the diagnosis phase and the problem was clearly defined, the plan phase started. In the plan phase a design of a business case was developed according to the objectives.

The definition and framework of a business case of Remenyi and Remenyi (2009) best meets the character of the housing association and its investment issues. The business case framework of Remenyi and Remenyi (2009) was adapted in order to provide an instrument which gives insight into, and supports in making, investment decisions focused on the improvement of the energetic quality of existing housing stock of housing associations. With the aim to keep housing costs manageable for Dutch tenants.

The expert panel commented that the business case is a suitable tool for making investment decisions regarding the improvement of the energetic quality of the existing housing stock. They also noted that the implementation and application of the business case requires attention, due to the corporate culture and business operations of the housing association.

According to research objective the main aspects of a business case, with the aim of making housing costs manageable, which is generally applicable to energy projects, consists of the elements Business Outcome, Strategic Alignment, Stakeholder, Technology Assessment and Project Risk. By using the designed Statements an elaboration can be made.

## 8.2. RECOMMENDATIONS

In this section the recommendations for further investigation or research are provided.

- In my opinion, the next step should be to test the business case in a real situation. The business case is already validated during an expert meeting, but to get more specifications a business case should be tested in a real situation. Learning by doing;
- The methods used in the different elements of the business case should be further investigated;
- The business case focuses on investments in the energetic quality of existing housing stock, but is also suitable for other interventions / investment proposals in the housing stock;
- The business case is, in this research, applied to an asset of the housing association. The business case could also be applied to the portfolio (total of assets) of a housing association;
- The customer expectations are changing, therefore it could be necessary to investigate the effects of this changing environment for the housing association.



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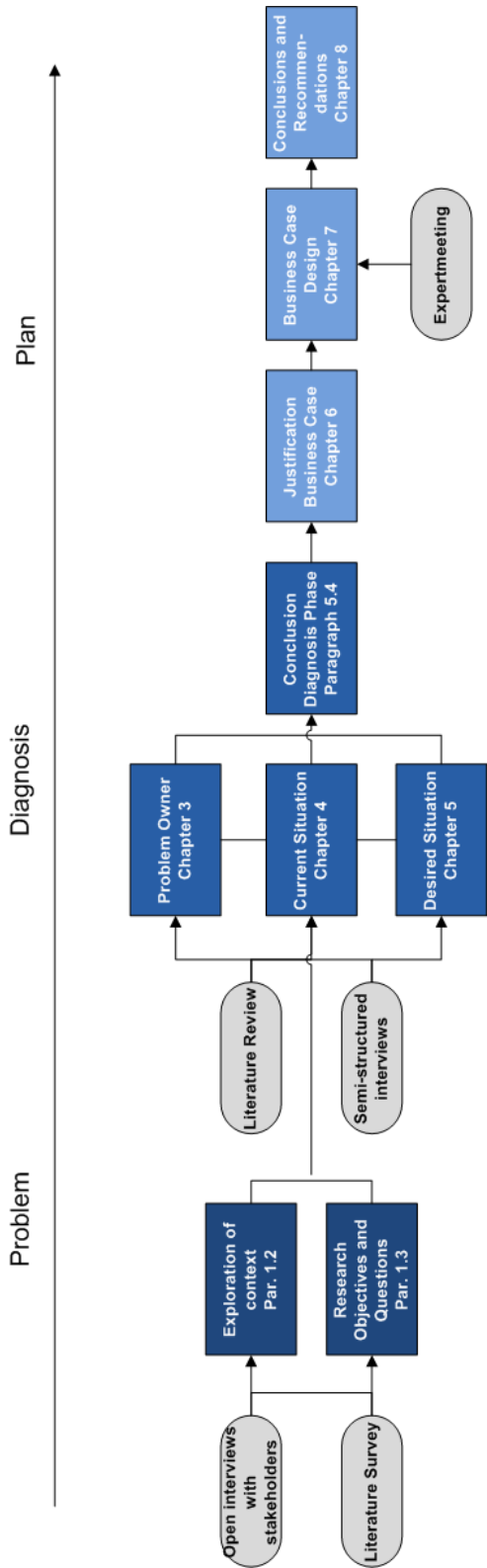
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APENDICES

APPENDIX 1: RESEARCH MODEL



## Appendix 2: List of partners

Name	Organization	Function	Phase
<b>GRADUATION COACHES</b>			
Mr. Ben Schreuder	Stek.nu	Advisor Sustainable Developments	All phases
Mr. Cor Snoeij	Stek.nu	Board	All phases
Mr. Wim Schaefer	TU/e	Professor Construction Management and Engineering	All phases
Mr. Kees Kokke	TU/e, Brabant Center of Entrepreneurship	Managing Director	All phases
<b>Open interviews</b>			
Mr. Frans Lemmens	WonenBreburch	Strategy and Policy Advisor	Problem phase
Mr. Ben Schreuder	Stek.nu	Advisor Sustainable Developments	Problem phase
Mr. Vincent van Hoegaarden	Endinet	Advisor Sustainable Developments	Problem phase
<b>INTERVIEWS</b>			
Mr. Frans Lemmens	WonenBreburch	Strategy and Policy Advisor	Diagnosis phase
Mr. Mark Nooij	Kleinemeierij	Principal New Construction	Diagnosis phase
Mr. Marcel van Dooremaalen	Trudo	Strategy and Policy Advisor	Diagnosis phase
<b>EXPERT PANEL</b>			
Mr. Erik Blokhuis	TU/e	Lecturer Construction Management and Engineering	Plan phase
Mr. Kees Kokke	TU/e, Brabant Center of Entrepreneurship	Managing Director	Plan phase
Ms. Gerrie KleinJan	TU/e, ADMS	PDEng ADMS	Plan phase
Mr. Ferdie van de Winkel	TU/e, ADMS	PDEng ADMS	Plan phase
Mr. Ben Schreuder	Stek.nu	Advisor Sustainable Developments	Plan phase
Mr. Cor Snoeij	Stek.nu	Board	Plan phase
Mr. Frans Lemmens	WonenBreburch	Strategy and Policy Advisor	Plan phase
<b>SYSTEM DYNAMICS</b>			
Ms. Kim van Oorschot	TU/e	Lecturer System Dynamics	Plan phase

## APPENDIX 3: INTERVIEW REPORTS

### Interview Verslag

Onderwerp: Investeren in de energetische kwaliteit van de woningvoorraad door corporaties

Wie: Frans Lemmens en Joske van Hoven

Datum: Donderdag 21 april 2011

### Investerings door Wonen Breburg

Wonen Breburg verhuurt 30.000 eenheden in Tilburg en Breda. Het investeringsbeleid komt voort uit het portfoliebeleid van de corporatie. Het uitgangspunt is het voorzien in de huisvesting van de doelgroepen van beleid. Het beleid is duidelijk gedefinieerd: 90% van de eenheden moeten toegewezen worden aan mensen met een inkomen onder de 33.641. Mocht de corporatie zich hier niet aan houden, dan komt de financiering van investeringen in gevaar door hoge rentes of het niet toewijzen van kapitaal.

Wonen Breburg zet zich in voor een gemengde samenstelling van wijken. Daarnaast zet zij zich in voor een basis kwaliteitsniveau van haar woningen, het kwaliteitsniveau volgt uit het kwaliteitsbeleid.

De corporatie heeft met de gemeente prestatieafspraken gemaakt. Een van de prestatieafspraken betreft de vaststelling van de grootte van de kernvoorraad en de hoogte van de huur van deze kernvoorraad. De omvang van de kernvoorraad en de hoogte van de huren van de kernvoorraad zijn geen vast gegeven; per gemeente verschilt dit. Hoofduitgangspunt van beleid is het houden van de kernvoorraad op een bepaald niveau.

Wonen Breburg heeft onderzoek laten verrichten naar de betaalbaarheid van haar woningvoorraad en daaruit blijkt dat de woongroepen van beleid een hoge woonquote hebben, hoger dan genormeerd door het Nibud/CBS. De woonquote is een niet gedefinieerd politiek iets.

Deze regering stelt de corporatie in staat hogere huren te gaan vragen aan haar huurders. Doordat de regering de corporatie in staat stelt elke zelfstandige eenheid met 25 WWS-punten op te waarderen ontstaat een extra huurruimte van ongeveer 125 euro per zelfstandige eenheid bij mutatie. Daarnaast is het energielabel opgenomen in het WWS-stelsel, waardoor ook extra huurruimte ontstaat. De corporatie onderzoekt nu welke consequenties deze extra huurruimte heeft.

Bijkomende woonlasten zijn erg belangrijk. Uiteindelijk gaat het om de betaalbaarheid. Betaalbaarheid gaat momenteel alleen in op de hoogte van de huur. Woonquote is niet gedefinieerd in het BBSH. Zittende versus zoekende huurder. Welke rol speelt het inkomen? De regering zou graag een inkomensgericht huurbeleid willen voeren. Een andere optie is om de huur te relateren aan de kwaliteit van de woning. Met het huidige regeringsbeleid ontkomt de corporatie er niet aan om een inkomensgericht huurbeleid te gaan voeren.

Deze regering heeft aangegeven dat over drie a vier jaar de corporaties 600 miljoen euro aan huurtoeslag moeten gaan betalen. Dat komt neer op 1/3 van de totale uit te keren huurtoeslag.

De redenen voor de corporatie om te investeren in projecten:

- De bestaande woningvoorraad: kwalitatief goed onderhouden (planmatig onderhoud, gewoon onderhoud, groot onderhoud en renovatie) om verhuurbaarheid te waarborgen, zorgen dat het product goed in de markt blijft staan.
- Nieuwbouw: aankopen van woningen om voorraad op peil te houden.
- Herstructurering: niet alleen investeren in product maar ook in de wijk. Om de samenstelling (huur / koop) goed te krijgen.
- Maatschappelijk vastgoed (verzorgingshuizen): is moeilijk aan het worden wat betreft de financiering.
- Duurzame energiesystemen (energie exploitatie) icm vastgoedontwikkelingen bij nieuwbouw.
- Sociale projecten: leefbaarheid te vergroten, kwaliteit van de leefomgeving te vergroten.

De redenen om te investeren hangen nauw samen met de taken uit het BBSH. Te grote risico's en/of een te groot beslag op de middelen van de corporatie zijn redenen om niet te investeren. Daarnaast of een investering rendabel is en of een investering tot een negatieve cashflow leidt. De corporatie wordt bij de financiering beoordeeld op een positieve cashflow. Een aantal jaren geleden kon je op basis van de grote van het vermogen nog financiering aantrekken, tegenwoordig vindt een beoordeling van de cashflow plaats. De totale cashflow van de vastgoedexploitatie moet positief zijn.

Belangrijke desinvesteringen zijn verkoop. Dat is de kurk waar alles op draait. De verkoop van woningen is een middel om een positieve cashflow te verkrijgen. De inkomsten (voornamelijk huurontvangsten) van de corporatie zijn lager dan de uitgaven (apparaatskosten, onderhoudskosten), dit gat (20 miljoen) wordt gedekt uit verkopen.

De corporatie investeert ook in nieuwbouw. De nieuwbouw scoort negatief op de cashflow en dat kan slechts gedragen worden door verkoop. Uiteindelijk zal de corporatie minder omvang van woningvoorraad hebben. Het hebben van een bepaalde omvang van de woningvoorraad is geen doel op zich, het doel is het huisvesten van de doelgroep van beleid in een bepaald gebied. Zolang de omvang van de voorraad voor het doel voldoende is, dan voldoet de corporatie aan de taakstelling.

Wanneer de corporatie op haar investering een negatief rendement behaalt, dan heet dat maatschappelijk rendement. Aedex berekent / meet de waardeontwikkeling en rendement van de woningvoorraad van de corporatie. Er vinden investeringen plaats met een negatief rendement. Huurwoningen hebben, wanneer 50 jaar in bezit, altijd een negatief rendement. Wanneer de woningen na 10 a 15 jaar worden afgestoten kan er een positief rendement worden gehaald, maar dat komt enkel door de waardestijging van het vastgoed.

De praktijk van de corporatie is een business case. De begroting voor volgend jaar is een business case. Een jaarbegroting waar alles in is doorgerekend en een meerjarenperspectief. Al de plannen en investeringen staan in het meerjarenperspectief.

De corporatie merkt dat er niet gewilde complexen zijn. Hier is vaak een hoge mutatiegraad. Corporatie heeft geen krimp of leegstand. Maar sommige complexen zijn moeilijk te verhuren. Als volkshuisvester blijf je investeren in kwaliteit.

### **Investeringen in de (energetische) kwaliteit van de woningvoorraad door Wonen Breburg**

Investeren in de energetische kwaliteit van bestaande woningen gebeurt (doel label B / C) bij groot onderhoud). Van de huurverruiming die ontstaat als gevolg van de labelverbetering, pakt Breburg Wonen 64% onder de voorwaarde dat dit gelijk staat aan de besparing die optreedt als gevolg van de verbetering. Wanneer de feitelijk besparing lager ligt, dan wordt de huurverhoging hierop aangepast. De huurlasten gaan omhoog, waar ook weer huursubsidie op aan te vragen valt. De maximale huur wordt niet gevraagd omdat de corporatie dan niet de betaalbaarheid van de woningen kan waarborgen.

De corporatie vraagt gemiddeld 72% van de huur die ze zou kunnen vragen. Bij mutatie is het streefhuurbeleid van 80%. De ingrepen om de energetische kwaliteit te verbeteren:

- Vraagreductie (dubbele beglazing, isolering)
- Ventilatieconcepten
- Installaties (ketels e.d.)

De reden om te investeren in energetische kwaliteitsverbetering zijn de woonlasten, CO2 reductie. Corporatie heeft het streven om in 2044 CO2 neutraal wil zijn met de voorraad. De corporatie doet ook aan voorlichting wat betreft energiebesparing. De energielasten gaan stijgen en die moeten omlaag, dan en ontstaat ruimte om een hogere huurprijs te gaan vragen. Om toch nog in de markt te blijven staan. En er moet toch een bepaalde rentabiliteit zijn en de huurder moet niet alleen het voordeel hebben. Als de besparing niet gerealiseerd wordt dan is de huurder daar de dupe van. Middels zijn gedrag kan hij wel tot besparing over gaan. Tussen huurders is er een groot verschil in gebruik. In de voorlichting gaat het toch altijd om het gemiddelde gezin, met het gemiddelde verbruik. Een grootverbruiker heeft straks meer besparing dan diegene die al niet zoveel gebruikt. Je kan eigenlijk niet van gemiddelden uitgaan.

Redenen om niet te investeren zijn dat het een te grote investering vergt en het niet rendabel krijgen van de investering. Instandhouding (geen kwaliteitsverbetering) of sloop is een oplossing. De verkoop van slechte woningen is niet de policy. De woningen die verkocht worden zijn geen krotten. Door verkoop worden daarentegen ook besparingsdoelstellingen bereikt.

De rol van de overheid en Aedes is heel belangrijk bij het investeren in de energetische kwaliteit van woningen. De vogelaarheffing en de vennootschapsbelasting maakt de corporatie een normale onderneming. Het beleid is erg bepalend. De financiering komt in gevaar door de nieuwe Europese regelgeving van maximaal inkomen 33000 (anders hogere rentes en minder investeringskapitaal) en de 600 miljoen huursubsidie. De minister komt de corporatie tegemoet door meer huur te vragen. Bij F/G label worden er punten afgetrokken in het WWS-stelsel, het kan dus dat de maximale huur onder de op dit moment gevraagde huur ligt. Die 25 extra zou de punten aftrek kunnen compenseren. Breburg Wonen denkt niet dat het tot huurverlagingen komt. De minister kijkt niet naar de betaalbaarheid van de woning.

De onrendabele top is een fictief iets. De onrendabele top bestaat uit het verlies over 50 jaar. In de winst en verliesrekening uit dit in iets negatief. Uiteindelijk gaat het om het effect op de cashflow.

De aanleiding tot investeren komt voort uit het portfoliebeleid. De doelstellingen zijn beschreven in het portfoliebeleid hieruit volgen de investeringen. Door een gezamenlijk ontwikkelde wijkaanpak kunnen ook (des)investeringenbeslissingen ontstaan. Het beleid wordt gemaakt op de afdeling strategie en beleid, in samenwerking met de vestiging en financiën. Wat is het beoogde resultaat voor de corporatie van een investering? De doelstellingen zijn gedefinieerd. Investeren is een gevolg van het besluit om iets te doen, het moet wel financieel in de raming vallen. Er wordt ook gekeken naar de risico's van een project. Er moet ook afzet / markt zijn.

Bij nieuwbouw is de corporatie zich van het afzetrisico bewust. Marketing, onderzoek is steeds meer aandacht voor. Bij huurders kijken zij naar de doelgroepen die ze willen bedienen. In de huur wordt het product gestandaardiseerd (een bepaalde kwaliteit, tegen een bepaalde huur, tegen een bepaalde investering, moet balans zijn). De corporatie houdt er ook rekening mee dat ze op termijn de woningen willen verkopen en daarvoor hebben ze ook de behoefte om een goed product neer te zetten.

Er wordt nog weinig geklaagd over de hoge energierekening bij de corporatie. De verantwoordelijkheid ligt bij de huurder. Vanuit het BBSH wordt met betaalbaarheid gerefereerd aan de huur en niet aan de woonlasten. Alle component komt er 200 a 250 euro bij en dan nog de netto huur. De corporatie is niet verantwoordelijk voor de woonlasten. De druk om een gematigd huurprijsbeleid te voeren in het kader van de betaalbaarheid van het wonen zal toenemen, alhoewel de overheid het wel mogelijk maakt voor de corporatie om meer te gaan vragen.

Vroeger was het huurbeleid streng gereguleerd. Langzamerhand is eea losgelaten en nu ligt er het BBSH en huurprijsbeleid wat door de overheid is gedictieerd.

De projecten wat betreft de energetische kwaliteit van woningen gaat via de normale werkprocessen. Groot onderhoud is een project. Standaard wordt verbetering van de energetische kwaliteit meegenomen bij nieuwbouw en groot onderhoud. Bij planmatig onderhoud wordt nu getracht om ook het component mee te nemen, voordat je het weet is het planmatig onderhoud een groot onderhoud project. Echter bij een verbetering kan een huurverhoging worden gevraagd en vindt er dus een ander financiële procedure plaats dan bij groot onderhoud. Resultaat is: wat heb ik geïnvesteerd en welke labelverbetering heeft plaatsgevonden. Bij groot onderhoud wordt een gedeelte geactiveerd als onderhoud en een gedeelte verbetering. Wanneer de levensduur wordt verlengd, ontstaat een andere bedrijfswaardeberekening en de rentabiliteitswaarde wordt ook anders. Wat leidt tot investeringsruimte. In het portfoliobeleid staat heel duidelijk wat de financieringsbehoefte is en hoe dit wordt gerealiseerd, bijvoorbeeld verkoop. Investeringscapaciteit van de corporatie gaat omlaag en groot onderhoudplannen worden vooruitgeschoven.

Vanuit Aedes wordt er nog geen druk uitgeoefend, maar het spanningsveld zal worden aangewakkerd. De minister zal aansturen op kwaliteitsverbetering.

De belangrijkste stakeholders zijn de gemeent, waarmee de corporatie prestatieafspraken maakt. De energetische kwaliteit maakt deel uit van de prestatieafspraken. De corporatie maakt de afspraken niet waar, doordat de corporatie geen financiering heeft. De huurdersorganisatie heeft aandacht voor de energetische kwaliteit van de woningvoorraad. Huurprijsbeleid en energetisch beleid gaan nu interfereren. Er ontstaat meer huurruimte. De vraag is of de corporatie dat pakt. De huurder moet je overtuigen met cijfers. Anders op eigen kosten investeren door corporatie. Doet corporatie wellicht wel om dan na mutatie de extra huurruimte te pakken.

Maatschappelijke organisatie, zoals zorginstellingen, wijkorganisaties. Daar speelt dit thema niet echt.

De corporatie heeft gesprekken met haar stakeholders. De corporatie wordt gevisiteerd. De corporatie ervaart geen bedreigingen, maar ziet kansen door stakeholders er vroeg bij te betrekken. Er zijn huurders die opkomen voor hun rechten. Niet meer dan anders-principe. Huurders zijn over het algemeen tevreden over hun duurzame energiesysteem. De huurder is geen belemmerende factor geweest bij projecten in energetische kwaliteitsverbetering. Op basis van feitelijke besparing. De huurders krijgen ook een comfortverbetering.

De corporatie vraagt zich af of de energielasten daadwerkelijk zo hard stijgen als men beleidsmatig heeft aangenomen. Bij het niet meer dan anders-principe moet men bekijken welk uitgangspunt men moet nemen. Het belang wordt steeds meer gedragen door de huurder. De huurder maakt zich nog niet hard voor de reductie van de uitstoot van CO<sub>2</sub>.

De corporatie kijkt of er op stadsverwarming aangesloten kan worden of biomassacentrales. Corporatie heeft samenwerkingstraject met ELES (exploiteert warmte) om warmtenetwerk te verduurzamen. ELES wil graag nieuwbouw en bestaande woningvoorraad op het warmtenetwerk aan te sluiten. De gemeente stimuleert dit. Koppeling bestaande warmtenetwerk met biomassacentrale. De afnemer, de corporatie, moet een tarief geven wat de woonlasten van huurders niet teveel belast. Vanuit de CO2 optiek kan verduurzaming plaatsvinden. De energiedrager is ook van belang naast de gebouwgebonden maatregelen. De initiatiefnemer is in dit geval essent. Wat is het financiële voordeel voor de klant?

De corporatie ervoer de regelgeving (split incentive) als belemmering om te investeren. Draagvlak van de klant kan belemmering zijn. Vanuit de referentie is de gasprijs te laag. De corporatie maakt standaard een risicoanalyse.

Meer aspecten spelen een rol bij milieu, zoals materiaalgebruik, afvalstromen etc. Hier is nog geen geïmplementeerd beleid voor. Een goede aanpak waarbij alle duurzaamheidsaspecten in zijn meegenomen ontbreekt nog. De corporatie gebruikt in pilots GPR, maar wil dit standaard gaan implementeren.



## **Interview Verslag**

Onderwerp: Investeren in de energetische kwaliteit van de woningvoorraad door corporaties

Wie: Marcel van Dooremaalen en Joske van Hoven

Datum: Maandag 2 mei 2011

### **Investerings door Trudo**

Marcel van Dooremaalen is adviseur beleid en strategie bij Trudo. Is bezig met het ontwikkelen van beleid op het gebied van duurzaamheid vorm te geven. Trudo doet nu al e.e.a. op het gebied van duurzaamheid op adhoc basis. Trudo wil nu het beleid op het gebied van duurzaamheid bediscussiëren met bewoners, gemeenten en bewonersverenigingen. Trudo heeft duurzaamheid breed gedefinieerd. Niet enkel het energiezuinig maken van de woningvoorraad, maar ook lange levensduur, flexibiliteit en het opwekken van duurzame energie. Het energiezuinig maken van de woningvoorraad is maar een klein onderdeel van het geheel.

Trudo heeft een visie die elke 4 a vijf jaar wordt geactualiseerd. Basis in de visie is het aanbieden van betaalbare woningen, Trudo maakt hierin geen verschil in huur of koop. 10 jaar geleden is een omslag gemaakt naar Slimmerkopen. Ook mensen met een lager inkomen moeten in staat zijn om een woning te verwerven. De corporatie verkoopt de woning met korting en wanneer zij vertrekken moeten zij de woning weer aan de corporatie aanbieden. Waardestijging wordt gedeeld. Daar is veel vraag voor, ook tijdens de crisis.

De doelen van de bestaande woningvoorraad. Trudo heeft kwaliteitsniveaus benoemd, afhankelijk van kwaliteitsniveau is het investeringsplaatje gekoppeld. Trudo hoeft niet perse alle woningen in nieuwbouwkwaliteit te hebben. Trudo ziet dat er genoeg vraag is naar woningen met een lagere kwaliteit en gekoppeld lagere huurprijs. Trudo kijkt voornamelijk naar het casco en laat de binnenkant van de woningen aan de bewoners over. Trudo vervangt niet standaard, maar behandelt op basis van klachtenonderhoud.

De redenen om te investeren in de bestaande woningbouw is om het gewenste kwaliteitsniveau te handhaven. Door de verkoop van woningen krijgt Trudo veel liquide middelen binnen en heeft een grote investeringsambitie. Trudo heeft veel woningen in de slechtere buurten van Eindhoven en heeft daardoor een grote stedelijke vernieuwingsopgave en fors uitbreidingsprogramma. Trudo heeft ten opzichte van de bestaande woningvoorraad een hoog aantal nieuwbouw in portefeuille. Trudo had een vrij eenzijdige woningvoorraad en met de uitbreidingsportefeuille wil Trudo had woningvoorraad differentiëren om meer evenwicht in de woningvoorraad te creëren. Doel: Risicospreiding, ruim aanbod kunnen bieden. De verhuurbaarheid van de woningvoorraad speelt hierin een grote rol.

De woningen die bij Trudo muteren gaan voor 80% de verkoop in. Trudo steekt dus in op verkoop. Tussentijds beheer vervalt hierdoor. Verkoop is een manier om instroom in de wijk te veranderen, ze onderhouden de woning/tuin beter. Manier om leefbaarheid in probleemwijken te verbeteren.

Redenen om niet te investeren in project dat onderhoud te duur wordt in relatie tot de toekomstwaarde die een woning heeft. Geloof in een markt van tweedehandswoningen. Bewust kwaliteit laag houden (boven basisniveau) en zo verkoop/huurprijs lagen. Of andere investeringsambities hebben en niet alles in een keer uit te kunnen voeren.

Bij nieuwbouw kijkt Trudo naar financieel rendement. Trudo kijkt naar het verschil tussen marktwaarde en stichtingskosten. Rendement 7 a 8% wordt beoogd. Bij bestaande woningen kijkt Trudo niet naar rendement, ze kijken naar de grote van de investering tot de levensduur die een project nog heeft.

Trudo maakt investeringsvoorstellen met risicoanalyses. Voornamelijk bij nieuwbouw, bij onderhoud wat minder. Bij groot onderhoud wel. Elk kwartaal wordt een risicoanalyse geupdate.

#### **Investerings in de (energetische) kwaliteit van de woningvoorraad door Trudo**

Trudo is een pilot gestart. Nieuwbouw ambities en stedelijke ambities moeten gehandhaafd blijven. Investeren in energiebesparende maatregelen (zijn vaak niet in meerjarige onderhoudsplannen opgenomen) wordt nu in 6 geselecteerde complexen geïntroduceerd. Bureau maakt voorstellen om woningen energiezuiniger te maken, daarbij geven ze de labelverbetering en energiebesparing aan. In de complexen willen ze de maatregelen gaan aanbrengen en een jaar het energiegebruik meten. Na een jaar willen ze andere bewoners een pakket van maatregelen aanbieden, maar daar staat wel een huurverhoging tegenover.

Even aftasten wat mensen bereid zijn te betalen. Trudo wil niet zomaar alles aanbrengen, maar willen pakketten aanbieden die individueel kunnen worden aangebracht. Dan is het de bewoner die kan kiezen of ze de maatregelen willen aanbrengen.

Maatregelen: isolatie, kierdichting, ketel vervangen/CV, co2 gestuurd ventileren en dubbele beglazing. De niet individuele maatregelen moeten met de VVE worden geregeld. Kopers kunnen ook voor de maatregelen kiezen, dan kunnen deze kosten worden aangebracht.

Trudo wil een deel van de investering terugzien en een aantal woningen zijn al verkocht en daardoor kiezen zij voor maatregelen die op individueel niveau kunnen worden aangepast. Het beleid is nog niet verankerd in het portfoliobeleid, ze zijn nog aan het pionieren. Het beleid is heel erg gericht om de zeggenschap van de binnenkant van de woning bij de bewoner te leggen. In die regel past het beleid ten aanzien van de verbetering van de woning.

De doelen die de corporatie wil bereiken zijn: bewoners de keuze te geven zodanig dat de woning past bij hun behoefte. De aanleiding is dat de energielasten gaan stijgen en de woonlasten in het geding is. Daarnaast is de corporatie aan het kijken of ze duurzame energie kunnen opwekken. Hier ziet de corporatie meer heil in om zo de co2 uitstoot te verminderen. Vraagbeperking is keuze voor de huurder. Duurzame invulling van de vraag is geen keuze voor de huurder, maar voor de corporatie een manier om inkomsten te genereren.

De woonlasten spelen een grote rol vanwege de betaalbaarheid van het wonen. De corporatie wil niet werken met woonlastengaranties, omdat ze het ingewikkeld vinden en ze zijn bang dat ze daarmee het gedrag van de huurders beïnvloedt. De corporatie kijkt naar hoeveel de energielasten dalen en bepaalt daaruit de huurverhoging (op basis van de metingen in de pilot projecten).

De corporatie trekt eigen plan en voelen zich niet gebonden zich te houden aan de afspraken die Aedes maakt. Trudo is geen lid van Aedes.

Maatschappelijke druk en dreiging van de energielastenstijging hebben geleid tot de aanzet tot het maken van beleid op het gebied van duurzaamheid. De visitatiecommissie en INK-instituut hebben aangegeven dat Trudo te weinig beleid heeft op het gebied van duurzaamheid. In de huidige prestatieafspraken geen rol, Trudo gaat ervanuit dat bij de komende prestatieafspraken duurzaamheid wel een rol gaat spelen. De gemeente probeert de corporaties aan te zetten tot het investeren in de energetische kwaliteit van de woningvoorraad (het afgelopen jaar neemt de druk vanuit de gemeente toe).

De corporatie beoogd de woningvoorraad gewild te houden met investeringen in de energetische kwaliteit van woningen (verhuurbaarheid/verkoopbaarheid en betaalbaarheid). Ze gaan niet zoveel investeren dat de woning niet meer bereikbaar is voor mensen met lage inkomens. Betaalbare huurwoningen, dan hebben we het over woningen onder de huurtoeslaggrens.

Trudo heeft de verbetering nog niet verankerd in de standaard werkprocessen. Trudo besteedt het onderhoud uit. Trudo heeft geen eigen onderhoudsafdeling. Trudo heeft een vrij grote afdeling projectontwikkeling. Energiebesparende maatregelen wordt straks op die manier uitgevoerd. De resultaten van de pilot worden door de afdeling beleid en strategie besproken met het bestuur.

De maatregelen worden gefinancierd door de huurontvangsten. Alle onderhoudsuitgaven worden gefinancierd uit huurontvangsten. Onderhoudsuitgaven zullen gaan stijgen, dan zal de uitvoering van de maatregelen worden gespreid in de tijd.

De corporatie houdt rekening met:

- Bewoners (1)
- Klantenplatform (huurders en kopers van Trudo): praat mee op beleidsniveau (overkoepelende bewonersvereniging)
- Bewonerscommissie (op complex niveau): informeren bij ingrepen, als ze de plannen niet zien zitten dan gaat het niet door
- Gemeente Eindhoven (2): prestatieafspraken en periodiek overleg wethouder en corporatiedirecteuren (de gemeente heeft een beetje invloed op het beleid van Trudo, Trudo trekt toch eigen plan). De corporatie heeft toch de gemeente nodig om doelen te bereiken, ze zoeken naar afstemming met de gemeente.
- Rijk

Beleid: bewoners zoveel mogelijk invloed willen geven bij het beheer van woningen en buurten. Trudo stoeit er mee hoe ze bewoners gaan betrekken bij de maatregelen. Trudo houdt debatten met stakeholders om de visie te toetsen. Energiebesparing was een item en daar bleek in dat de bewoners er goedwillend tegenover staan. De vraag is of hoe de huurder gaat reageren op de reactie van de bewoner op de huurverhoging. Gros bewoners zal een zakelijke afweging maken tussen kosten en opbrengsten.

Op technisch gebied zijn de risico's dat het binnenklimaat niet goed wordt na dichtstoppen. Bewoners het niet zien zitten en niet willen meewerken of juist als heel veel bewoners de maatregelen zien zitten en de corporatie een grote investeringshobbel heeft te nemen. Energieverbruik of vermindering van energieverbruik tegenvalt.

Corporatie gaat in het pilot ook proberen inzicht te verkrijgen in hoeveel bewoners de maatregelen willen of juist niet. Binnenklimaat hebben ze mensen naar laten kijken naar deskundigen en tijdens de pilot zullen ze hier ook metingen naar verrichten. Door alle risico's te beperken begint de corporatie klein.

De corporatie wil nog voor de zomervakantie starten met de pilot. Waarschijnlijk zullen de maatregelen na de zomervakantie genomen worden.

## **Interview Verslag**

Onderwerp: Investeren in de energetische kwaliteit van de woningvoorraad door corporaties

Wie: Mark Nooij en Joske van Hoven

Datum: Dinsdag 26 april 201

### **Investerings door Kleinemeierij**

De investeringsstatuten van Kleinemeierij worden nu opgesteld. De Kleinemeierij bepaalt nu welke rendementen de verschillende vastgoedobjecten moeten gaan behalen, voordat er een akkoord wordt gegeven op een investering. Ieder project wordt op eenzelfde manier ingericht en worden besluiten genomen conform dezelfde standaard die mede vanuit Stek ontwikkeld is.

De rendementen worden bepaald aan de hand van de verschillende huurcategorieën (goedkoop, betaalbaar, duur en markthuur) en daaraan gekoppeld worden verschillende IRRs vastgesteld. Voor de koop worden winstpercentages vastgesteld. Maatschappelijk en bedrijfs onroerendgoed en daar worden verschillende rendementseisen aan gehangen. Het gaat vooral om financieel rendement. Maatschappelijk rendement is moeilijk te meten.

De doelen volgen uit het strategisch voorraadbeleid. Dat hangt wel samen met het investeringsstatuut. KM heeft grofweg inzichtelijk wat ze hebben ook op het gebied van energielabels. De KM kijkt in de gemeentes waar ze actief zijn wat ze willen ontwikkelen en of het aansluit op de markt.

De redenen om te investeren in nieuwbouw is om de portefeuille gezond te houden: verschillende woningen, kwaliteiten. Door aankopen, ontwikkelen of renoveren. Renoveren doet KM niet veel. Aankopen doen ze ook niet zoveel. De corporatie geeft de voorkeur aan ontwikkelen. De portefeuille van KM is redelijk goed en wat niet goed (technische kwaliteit) is probeert de corporatie af te stoten. KM heeft ten opzichte van andere corporaties een relatief goed bezit (energielabels)

De redenen om niet te investeren zijn FINANCIËEL. Als je geen financiële middelen hebt kan je ook niet investeren. Afstoten daar is de markt niet echt naar en afstoten aan een belegger levert vaak minder op dan dat het mogelijk waard is. Afstoten is een van de redmiddelen om de financiële huishouding op orde te krijgen. Zolang er geld ter beschikking is kan je investeren in de bestaande bouw alswel als nieuwbouw. Corporaties komen steeds meer op het punt dat er geen geld meer is. Het geld zit in de stenen en dat krijg je er nu niet uit.

De rendementen worden nog vastgelegd. De voorgangers hebben de rendementen niet vastgesteld. Je kijkt naar je investering en naar de potentie wat het de komende jaren zal gaan opleveren. KM maakt altijd business cases.

### **Investerings in de (energetische) kwaliteit van de woningvoorraad door Kleinemeierij**

KM heeft geïnvesteerd in het inzichtelijk maken van de energetische kwaliteit van haar woningvoorraad (energielabels). KM heeft de afgelopen jaren niet veel geïnvesteerd in de energetische kwaliteit van de bestaande woningvoorraad. Wanneer dit wel is gedaan dan heeft dat vaak plaatsgevonden tijdens mutatieonderhoud. Grootschalig heeft de corporatie niet geïnvesteerd. Maatregelen: dubbelglas. KM heeft geen beleid voor de energetische kwaliteit van haar bestaande woningvoorraad. Voor nieuwbouw hanteert KM een programma van eisen, hierin wordt iets gezegd over de EPC. KM heeft met de gemeente Den Bosch afgesproken dat KM 20% beter moet presteren dan aangegeven in het bouwbesluit. Deze afspraak wordt losgelaten doordat de norm in het bouwbesluit in januari is aangepast.

Alle doelstellingen zijn vastgelegd in het PVE, er wordt gekeken naar materiaalgebruik. Duurzaamheid speelt op dit moment een ondergeschikte rol bij KM. Ze zijn wel bezig met duurzame energieopwekking, WKO. De duurzame energieopwekking is vanuit de overheid opgelegd. Maar ook komt de toepassing voort uit de corporatie zelf, omdat de woning meer waard (marktwaaarde) wordt met de toepassing van duurzame energie. De energetische kwaliteit van de woning heeft invloed op de marktwaaarde, maar volgens KM zit hier wel een stop aan.

De marktwaaarde van het product wordt beter. De energielasten zullen de komende jaren gaan stijgen, de corporatie wil de woonlasten binnen de perken houden. De overheid gaat naar een woonlastenbeleid toe en om de woonlasten betaalbaar te houden moet de corporatie toe naar alternatieve energie. Woonlasten vormen op dit moment een discussiepunt in de corporatie. De investering in energiebesparende lasten worden nog niet teruggehaald uit de huur. Eerst moet er een gedachtenswitch plaatsvinden bij de overheid, zodat de corporatie anders hiermee om kan gaan.

De F/G woningen zijn nog niet moeilijker verhuurbaar, maar dat gaat wel komen denkt KM. De oudere woningen hebben een laag label maar ook een lage huur. De prijs/kwaliteit verhouding speelt daarbij een rol. Mensen zullen veel meer gaan klagen.

Een woonlastenbenadering zal de corporatie instaat stellen een groter deel van de investering terug te halen. Dit zal de corporatie stimuleren te investeren in energiebesparende maatregelen. KM doet niet veel met het covenant van Aedes en overheid. De pijlen van Den Bosch staan gericht op de twee andere corporaties die een slechtere energetische voorraad hebben.

De woonlasten zullen nog geen rol gaan spelen in de nieuwe prestatieafspraken. Er wordt een knipoog gegeven naar de woonlasten door het in kaart brengen van de energielabels. De gemeente wil dat de corporaties de woningen met een slecht energielabel gaat upgraden. De corporatie heeft de financiële middelen niet om de woningen te upgraden.

Investerings in de energetische kwaliteit van de bestaande woningvoorraad is niet aan de orde bij KM. Bij de toepassing van de WKO was het een voorwaarde van de gemeente.

Bij projectontwikkeling verandert nog niet zoveel. Behalve dat er specialistische kennis moet worden ingehuurd. Bij de exploitatie van energie door de corporatie verandert er wel veel. De corporatie wil een bepaald rendement uit de WKO halen en grip houden op de stijging van de energielasten. De corporatie wordt een stukje nutsbedrijf. De betalingen worden door de corporatie uitbesteed. Er komt een nieuwe financiële huishouding voor de corporatie bij.

De individuele huurders hebben er nog niet over nagedacht. De zakelijke gebruikers verwachten straks een lagere energielast te hebben. De corporatie hanteert het niet meer dan anders principe. De corporatie levert koude en warmte, de overige nutsbedrijven kunnen de huurders zelf uitkiezen. Een stukje keuzevrijheid vervalt. De corporatie probeert er wel voor te zorgen dat de huurder er ook beter van wordt. De WKO installatie geeft in ieder geval een bepaald comfort (=verbetering tov conventioneel systeem), beter binnenklimaat. De huurders, blijkt uit vergelijkbare projecten, zijn over de lange termijn tevreden over een WKO installatie.

Belanghebbenden:

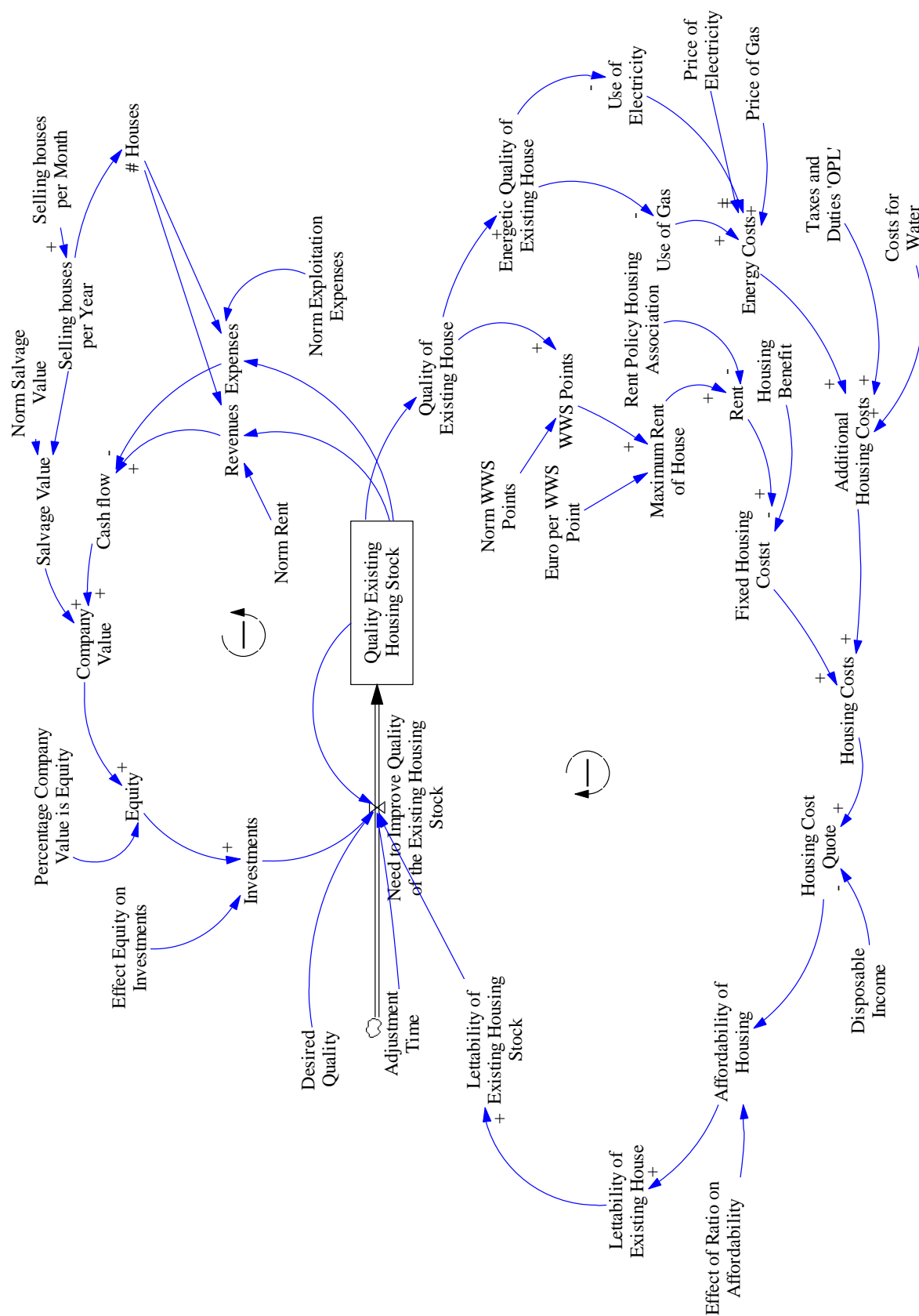
- Corporatie zelf: inlichten
  - o Directeur & MT
  - o Iedere medewerker is belanghebbenden
- Gemeente: grondoverdracht. De subsidies van het Rijk worden door de gemeente gegeven. Overleg op ambtelijk en bestuurlijk niveau (op de hoogte gehouden)
- Afnemers: zijn het belangrijkste, worden dagelijks geconfronteerd met wat de corporatie in de woning heeft gestopt. Comfort meten bij individu is erg lasten. (informerend)
- Stek: ontwikkelaar (periodiek overleg worden alle projecten besproken en incidenteel over projecten en ledenvergaderingen op bestuurlijk niveau)
- Financierder (KM financiert met WSW borging, de manager bedrijfsvoering heeft veelvuldig overleg met WSW)
- De doelstellingen van Aedes en overheid spelen geen rol voor KM. Subsidies spelen geen doorslaggevende rol bij het doorgaan of opstarten van een project.

Op het gebied van duurzaamheid heeft de corporatie nog geen hinder ondervonden van stakeholders.

Voor elk nieuwbouwproject gaat de corporatie een marktonderzoek doen voor zowel huur als koop. De verhuurbaarheid van woningen wordt steeds lastiger (hangt af van de lokatie). In het investeringsstatuut staat een paragraaf risicomanagement, dat gaat over risico's van corporatie en projecten. Projectinhoudelijk is er een risico paragraaf opgenomen worden de risico's door de projectmanager inzichtelijk gebracht en daarnaast een strategie bedacht. Risico's komen terug in investeringsvoorstel.

De kwaliteit van de woning wordt beschreven in het pve, prestatie bestek. Verhuruobjecten worden kwalitatief en ruimtelijk beschreven. De projectmanager van Stek moet waarborgen dat de kwaliteit behaalt wordt of waar afgeweken wordt. Wijzigingen worden vastgelegd om zich er bewust van te zijn wat de wijzigingen zijn en waarom.

## APPENDIX 4: SYSTEM DYNAMICS MODEL





## APPENDIX 5: SYMBOLS AND ELEMENTS OF SYSTEM DYNAMICS MODEL



Negative feedback



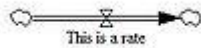
Positive feedback



Information flow (possible to add polarity +/-)



Delayed information flow



Flow rate (+ enter an equation)



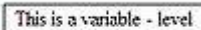
Rate



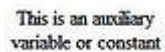
Source/sink



Material flow



Variable-level(stock) - needs to be counted



Constant/auxiliary variable (given by user)



Shadow variable (split parts of the model in multiple views are interconnected by this)