# The Negotiation Process
# **Regenerated**

An evaluation of the relation between rigidity and effectiveness of the "de Kosten In Beeld, de Kosten Verdeeld" methodology in Regeneration Projects

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METRUM
GEBIEDSONTWIKKELING \ VASTGOEDECONOMIE

UNIVERSITEIT TWENTE.

# The Negotiation Process Regenerated:

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## PREFACE

Enschede, 28 oktober 2009,

In de afgelopen jaren fietste ik regelmatig naar station Hengelo. Op de weg daarheen kwam ik altijd een aantal in de struiken verscholen borden met quotes tegen. Die staan daar bij wijze van kunstwerk. Één daarvan zette mij altijd aan het denken "Niets is, alles wordt". Leuk, maar wat moet je ermee. Op een vroege ochtend, onderweg naar een gesprek met mijn afstudeercommissie realiseerde ik me dat die uitspraak wel erg van toepassing is op mijn afstuderen, maar ook op mijn hele studietijd. Als ik iets heb geleerd in mijn studententijd is dat als je iets wilt, je er wel moeite in moet stoppen. Niks komt aanwaaien; niets is, alles wordt. Of dat is wat de beste man Heraclitus ermee bedoelde, doet er niet eens toe, dit inzicht heeft mij verder geholpen.

Zo begin ik vol goede moed aan het schrijven van deze scriptie. Het idee was duidelijk, de eindtermen ook. Slechts negen maanden scheiden mij van mijn einddoel, zo simpel. Negen maanden is veel tijd, maar met uitstellen komt er niks op papier. Met de quote in het achterhoofd realiseerde ik me steeds dat het behalen van het eindresultaat toch echt ook mijn inzet vereist. Uiteindelijk, naar negen maanden (of beter, naar 6 jaar studeren) ligt dat resultaat er: twee mooie scripties. Deze scriptie zal mij mijn Master Bedrijfskunde bezorgen, de ander mijn Master Civiele Techniek. Trots op het eindresultaat en blij er mee klaar te zijn, maar ook een beetje treurig; mijn studententijd zit er definitief op!

Hoe erg het ook klinkt als een cliché, maar dit onderzoek had ik echt niet kunnen doen zonder een aantal mensen. Deze wil ik dan ook allemaal bedanken. Als eerst Henk Kroon, mijn begeleider vanuit de UT, dankzij zijn pragmatische manier van begeleiden en becommentariëren én zijn vertrouwen in mijn kunnen is het me gelukt om het schrijven van beide scripties te combineren. Wybe Theijse, begeleider vanuit Metrum, wil ik ook bedanken voor zijn nuttige tips en tevens zijn vertrouwen. Metrum in zijn algemeenheid bedank ik voor het faciliteren van de afstudeerplaats en het geven van alle vrijheid. Alle medewerkers van Metrum hebben wel op één of andere manier bijgedragen en waren ook nuttig in het bieden van de benodigde afleiding. De getoonde interesse motiveerde mij steeds om mijn best te doen, maar leverde soms ook frustratie op als ik geen vooruitgang kon melden. In het bijzonder wil ik Stan, Maikel, Ralph en (wederom) Wybe nog bedanken voor hun deelname aan de simulaties. Het succes van de simulaties is met name te danken aan hun inlevingsvermogen. Af en toe dacht ik zelfs dat ze waren vergeten dat het een fictief project was.

Ik grijp deze kans meteen aan om nog een aantal mensen te bedanken. Ten eerste mijn vriendenclubje "PalleT # +", zij hebben mijn studententijd tot een fantastische tijd gemaakt; het schuim op mijn bier. Mijn ouders bedank ik graag voor hun vertrouwen en voor de financiële ondersteuning. Zij noemden het altijd een subsidie, "a fonds perdu", ik hoop dat ik kan bewijzen dat het toch ook een beetje een investering was. Tot slot en zoals het hoort niet als minst, wil ik Eveline bedanken. Voor de harde deadline die je mij onbewust hebt gesteld, maar ook voor de goede zorgen in de drukke afrondende fase.

Ik wens je veel leesplezier en hoor na afloop graag jouw reactie!

Roel Reuser

## MANAGEMENT SUMMARY

**Introduction** - Spatial planning in the Netherlands is focussing more and more on the regeneration of inner-city neighbourhoods. Especially the neighbourhoods rapidly built after the second world war, to cope with the huge deficit on houses, experience a reduction in liveability. Politicians and scholars agree that to improve the neighbourhoods, the redevelopment cannot be limited to some marginal physical measures. To effectively improve the neighbourhood a integral regeneration is necessary. The municipality is responsible for carrying out the national policy on urban renewal. In these neighbourhoods the social housing associations possesses a large part of the real estate. They experience a increased threat of vacancy in their low quality property. Hence, the municipality and the social housing associations both are interested in the regeneration of the neighbourhood. To regenerate a neighbourhood they are mutual dependent, so they need to cooperate. Financial arrangements need to be established in order to cooperate, but problems occur in the negotiation process. A joint effort of authoritative parties resulted in a methodology to establish unambiguous balanced division of costs and income, the "Kosten In Beeld, de Kosten Verdeeld" -methodology (KIBKV). Although it offers the desired transparency it often does not have the desired results; still many problems occur during the negotiation processes.

**Recommendations** - The disappointing effect of the KIBKV methodology is a result of its rigidity. The rigidity is caused by the choices that the methodology prescribes to make the calculations more transparent. Hence, to enhance the effectiveness of the KIBKV methodology, the rigidity needs to be decreased, without affecting the transparency. This can be done by making the distribution rule more flexible. The distribution rule prescribe how a deficit of funds for the regeneration should be divided among the participants. The percentages prescribed by the distribution rule should be open for negotiation to enhance flexibility. Other way to create more flexibility is by discounting some project specific issues in the valuation of property, no adjustments to the method are needed for this measure.

**Research** – A quasi-experimental research design is used to come to these findings. After a thorough analysis of the problem and its context an experiment is designed to test the proposed adjustments to the KIBKV method. In total three groups of adjustments were designed, of which one is recommended for implementation, as described above. The experiment consisted of two negotiation simulations between a social housing association and a municipality over a fictive project. In one simulation the participants were assigned to follow the principles of the original KIBKV method (control group), in the other simulation the adjusted KIBKV method (treatment) was followed.

**Consequences –** The KIBKV method already offered much transparency, with the improved flexibility the method can be very useful in negotiation processes of regeneration projects. The method is a "preferred method", so it is allowed to adapt the method if necessary. When the adjusted method is used, municipality and social housing association are more likely to successfully establish financial arrangements. It would therefore be wise to reanimate the method by applying the adjusted method in regeneration projects. The method and especially the adjusted method also show potential for broader application. It would be wise to examine how the method can be extended to two potential fields of interest. First extension is the involvement of other actors like real estate developers and health organizations, second extension is the application on other type of area developments, like city expansion projects.

## SAMENVATTING


**Inleiding in problematiek**
Na de tweede wereldoorlog stond de Nederlandse overheid voor de zware taak om Nederland weer op te bouwen. Nadat de vrede was teruggekeerd in Nederland werd begonnen met de wederopbouw. Dit leidde tot recht toe recht aan complexen, vaak in de vorm van de bekende "portieketageflats". Veel aandacht aan ruimtelijke ordening werd er tijdens de wederopbouwperiode niet besteedt. Pas in de jaren '60 kwam hier meer aandacht voor. Initieel richtte dit beleid zich voornamelijk op de stedelijke uitbreiding, maar door de jaren heen verschoof de aandacht meer richting de stadsvernieuwing. In de derde nota op de ruimtelijke ordening werd deze term geïntroduceerd. Er werd begonnen met het vernieuwen van de vooroorlogse huizen. Ondertussen nam de kwaliteit van de wijken met naoorlogse woningen steeds verder af. De wijken verloren de competitie met de wijder opgezette stadsuitbreidingen. Hierdoor groeide het aandeel van lagere inkomens in de naoorlogse wijken. Dit zorgde voor segregatie in de stad, dat de leefbaarheid in de naoorlogse wijken niet ten goede kwam. Met als gevolg, dat er nog meer midden en hoge inkomens wegtrokken uit de wijk; een neerwaartse spiraal.

Dit was de aanleiding voor een paradigmaverandering in het denken over stadsvernieuwing. De term stedelijke vernieuwing werd geïntroduceerd in het "Beleid voor de Stadsvernieuwing in de Toekomst" (BELSTATO). De overheid realiseerde dat sec een fysieke aanpak van de wijken niet genoeg was. Het nieuwe beleid richt zich op drie peilers; de fysieke, de sociale en de economische peiler. Het GroteStedenBeleid is de concrete uitwerking van dit beleid. Op deze manier wordt een substantiële verbetering van de leefbaarheid in de verpauperende naoorlogse wijken beoogd. De grondige aanpak gaat vaak gepaard met herstructurering (de gebruikte Engelse term in dit rapport is "regeneration").

**Probleembeschrijving**
Met een herstructurering is de wijk aan een ingrijpende fysieke verandering onderhevig. In de nieuwe plannen wordt rekening gehouden met de drie pijlers uit het GroteStedenBeleid. Zo worden er woningen teruggebouwd voor een gemixte doelgroep en is er meer aandacht voor de openbare ruimte en sociale voorzieningen.

De gemeentes zijn verantwoordelijk voor de uitvoer van het GroteStedenBeleid. Zij zullen vooral door middel van het toevoegen/verbeteren van sociale functies en openbare ruimte een bijdrage kunnen leveren aan de herstructurering. De meeste woningen in de te herstructureren wijk zijn in het bezit van de woningcorporaties. Zij zijn ook gebaat bij het verbeteren van de leefbaarheid van de wijk, omdat dit ten goede komt aan de verhuurbaarheid van hun woningen. Daarbij is met zes prestatievelden in het Besluit Beheer Sociale Huursector (BBSH) de maatschappelijke verantwoordelijk van woningcorporaties vastgelegd. In herstructurering wordt meestal een groot deel van de woningen gesloopt, om de kwaliteit van de woningen te verhogen en ook woningen te kunnen terugbouwen voor hogere inkomensgroepen. Dit brengt met zich mee dat de gemeente en de woningcorporatie op elkaar zijn aangewezen. Een succesvolle herstructurering is alleen mogelijk als ze op één of andere manier samenwerken.

Daarnaast is de lage verdiencapaciteit karakteristiek voor herstructureringsprojecten. Er zijn namelijk veel extra kosten gemoeid met een herstructurering, die niet spelen bij stadsuitbreiding. Zo moeten er veel sloopkosten gemaakt worden. Daarnaast vertegenwoordigt het te slopen vastgoed nog een bepaalde waarde. Deze waarde moet worden afgeboekt. De huidige bewoners van de wijk, zullen tijdelijk moeten worden gehuisvest, of krijgen een verhuisvergoeding. Tot slot is het voorzieningsniveau in herstructureringswijken hoog, wat ook extra kosten met zich meebrengt.

De gemeente en woningcorporaties zullen afspraken moeten maken om tot een gezamenlijke aanpak te komen. De financiële afspraken zijn een belangrijk aspect hiervan. Mede doordat de herstructureringsprojecten kampen met een lage verdiencapaciteit, komen de financiële afspraken vaak moeilijk tot stand. Hierdoor duurt het vaak langer voor de afspraken tot stand komen dan vanuit het oogpunt van woonbeleid wenselijk is.

Een gezamenlijk initiatief van koepelorganisaties van betrokken partijen (VNG, AEDES en NEPROM) en het ministerie van VROM heeft geleid tot de handreiking "de Kosten In Beeld, de Kosten Verdeeld" (KIBKV). De handreiking, uitgekomen in 2003, biedt gemeenten en woningcorporaties een eenduidige rekenmethodiek. Door consequent en op gelijke uitgangspunten te rekenen en redeneren, kunnen partijen sneller overeenstemming bereiken dan nu vaak het geval is. In de praktijk blijkt echter dat de methodiek niet het gewenste effect heeft. De methodiek maakt een aantal keuzes om zo de verdeling van kosten en opbrengsten transparanter te maken. Herstructureringsprojecten zijn echter allemaal uniek, waardoor de methodiek niet altijd aansluit op de situatie. Dit onderzoek beoogd met verbeteringen in de rigiditeit van de methodiek de effectiviteit te verhogen.

**Onderzoeksmethodiek**
Om de onderzoeksdoelstelling te behalen is gekozen voor een quasi-experimentele onderzoeksstrategie. Dit betekent dat er een experiment is gehouden waarbij geen gebruik is gemaakt van aselecte toewijzing. Het experiment bestond uit een tweetal nagebootste onderhandelingssimulaties. In deze simulatie hebben twee consultants van Metrum de rol van woningcorporatie en gemeente op zich genomen. De onderhandeling betroffen een herstructurering van een fictieve wijk. De onderhandelaars zijn voorzien van een rekenmodel dat gebruikt maakt van de KIBKV methodiek. Beide partijen ontvingen een target en een maximale bijdrage aan het tekort als startpunt van de onderhandeling. Deze gegevens waren uiteraard onbekend voor beide partijen. Het project was zo ontworpen dat er slechts een kleine bandbreedte was waarin beide partijen overeenstemming konden bereiken. In een simulatie werd strikt gebruik gemaakt van de KIBKV methodiek (de test-groep), hier mocht niet van afgeweken worden. In de andere simulatie maakten de onderhandelaars gebruik van een aangepaste KIBKV methodiek. Deze methodiek is op basis van voor onderzoek zo ontworpen dat er veel meer flexibiliteit wordt geboden aan de onderhandelaars. Beide simulaties namen een middag in beslag, waarin de partijen door onderhandeling tot een overstemming moesten komen.

**De aangepaste KIBKV methodiek**
In de aangepaste KIBKV methodiek, zijn drie groepen van flexibiliteiten aangebracht ten opzichte van de originele KIBKV methodiek:

1) De onderhandelaars mochten, in tegenstelling tot de KIBKV methodiek, onderhandelen over de waarderingsgrondslagen.
2) De originele KIBKV methodiek ziet een herstructurering als een gezamenlijke onderneming. Daarom worden alle kosten en opbrengsten gelijk verdeeld. In de aangepaste KIBKV methodiek zijn de partijen vrij om te onderhandelen over de allocatie van alle kostenposten naar de verschillende participanten.
3) De laatste flexibiliteit is gemaakt in de verdeelsleutel. De originele KIBKV methodiek heeft een verdeelsleutel met 2 lagen; eerst wordt er een bijdrage voorgeschreven naar kerntaak, vervolgens wordt het resttekort opgedeeld op basis van belang. Deze verdelingen gaan op basis van 100% - 0%. In de flexibele variant van de KIBKV krijgen de onderhandelaars de mogelijkheid om hiervan af te wijken. De percentages zijn daarom ook onderdeel van de onderhandeling.

**Conclusie**
In de aangepaste methodiek bleek één van de drie toegevoegde flexibiliteiten bruikbaar. De flexibiliteit in waarderingsgrondslag bleek niet nuttig. De voorgeschreven waarderingsgrondslagen zijn namelijk al de meest voor de hand liggend. Daarbij blijkt er ook nog voldoende onderhandelingsruimte te zijn wanneer de waarderingsgrondslagen al vast liggen.

De allocatie van kosten bleek ook geen nuttige toevoeging aan de KIBKV methodiek. Tijdens de simulatie werd er hevig onderhandeld over de verdeelconstructie. Dit leidde tot een zeer ingewikkelde verdeling, waardoor de doorwerking op het eindresultaat niet meer transparant was. Aangezien de methodiek juist een hoge transparantie beoogd, is dit niet wenselijk. Daarbij bleek dat de kosten die op redelijke argumenten niet verdeeld zouden moeten worden, eenvoudig verdisconteerd kunnen worden in de inbreng en uitneemwaarden van het ontwikkelde vastgoed. Daarmee was ook het nut van deze flexibiliteit niet meer aanwezig.

De derde flexibiliteit bleek wel een nuttige toevoeging. De partijen konden door te onderhandelen over de verdelingspercentages, beargumenteerd tot een eerlijke verdeling komen. Daarbij werd de transparantie niet aangetast van de methodiek. Door te onderhandelen over de percentages werd juist transparant wat het effect was van bepaalde keuzes op het eindresultaat.

**Aanbevelingen**

Op basis van dit onderzoek kan geconcludeerd worden dat er nog potentie zit in de KIBKV methodiek. Zwakke punt blijkt de rigiditeit te zijn, terwijl de herstructureringsprojecten waarop het van toepassing is juist sterk kunnen verschillen van elkaar. Meer flexibiliteit in de methodiek kan hiervoor oplossing bieden. Belangrijk is wel dat de transparantie die de methodiek biedt wel behouden blijft. Op basis van de simulaties wordt aangeraden om de flexibiliteit met name in de verdeelsleutel te zoeken. Door de woningcorporatie en gemeente te laten onderhandelen over deze verdeelsleutel, blijft de transparantie behouden, maar is wel een op maat gemaakte opbrengst- en kostenverdeling mogelijk.

Verder is op basis van dit onderzoek nog een aantal aanbevelingen voor verder onderzoek gedaan. Allereerst wordt aangeraden om het experiment vaker uit te voeren om de bevindingen te kunnen ondersteunen met meer bewijs.

Ook kan verder onderzoek gedaan worden om de toepasbaarheid van de methodiek te verbreden. De methodiek is namelijk in potentie ook bruikbaar wanneer er meer partijen zijn betrokken in de herstructurering. Zo zijn steeds vaker ook ontwikkelaars en zorgorganisaties betrokken bij de herstructurering. Verder kan de methodiek, met wat aanpassingen ook toegepast worden op uitbreidingslocaties.

Laatste aanbeveling voor verder onderzoek richt zich op de rol van vertrouwen en openheid in het onderhandelingsproces. In dit onderzoek is gefocust op transparantie en flexibiliteit, maar andere factoren spelen ook een rol in de onderhandeling. Deze zijn niet meegenomen in het onderzoek, maar vragen wel om verder onderzoek.

## INDEX

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# 1 INTRODUCTION

After the Second World War, the Dutch Government faced the task of rebuilding the Netherlands. Directly when peace returned the government started to resolve the huge houses shortage [VROM, 2009], [van der Cammen & de Klerk, 2003, p.163]. This led most of the time to straightforward house complexes without much quality [Brouwer, 2006, p.1]. In 1962, after just 15 years, the millionth house was produced [van der Cammen & de Klerk, 2003, p.192]. The rebuilding task had asked so much attention of the predecessor of the ministry of public housing, spatial planning and environment, that they lacked attention to spatial planning. From the sixties they increased their attention to the spatial planning by introducing five white papers in the past fifty years. Initially specifically influencing the expansion areas, the focus of spatial planning more and more included redevelopment of inner-city areas. The redevelopment policy of inner-city evolved over the years till what now is called "urban regeneration". In this chapter an overview of these developments is given as an introduction to the main subject of this research: inner-city regeneration. The importance and difficulty of the regeneration task will become clear in next two sections.

*<< Instead of giving a politician the keys to the city, it might be better to change the locks.>>*
Doug Larson

## *1.1 Change in National Policy on Public Housing and Spatial Planning*

Before the seventies the development of inner-cities consisted for the far part of shack clearance and reconstruction [Breejen, 2006, p. 3]. The third white paper on spatial planning introduced serious attention on the regeneration of the cities. In this specific white paper, the term "city renewal" came into existence. The city renewal was mainly focused on rebuilding of the pre-war houses, a pure physical improvement. Renewing the city was especially destined for the former inhabitants, creating a larger share of social housing in the areas [Breejen, 2006, p.3]. Although the building quality of the houses in the urban area was successfully enhanced, it seemed that the neighbourhoods as a whole did not profit from the efforts [VROM, 1997, p.3], [Breejen, 2006, p. 3]. This problem was noticed and recognized in the policy for urban renewal in the future (in Dutch: BELSTATO) [VROM, 1997, p. 3]. The change of adage used by the politicians from "city renewal" to "urban renewal" preludes the shift in national policy which is described in the following section. This shift was primarily a result of the following developments.

First, the energy that was put in the redevelopment of urban areas did not have satisfactory results. It turned out that urban areas were not able to evolve in pace with the social and demographic developments, to meet the changing quality requirements [VROM, 1997, p.3].

Second, due to the increasing prosperity, society developed more in a multiform way and demanded higher quality. "People increasingly retain the right to make choices which fit more and more to individual preferences" [Kruythoff & Haars, 2003, p. 34]. As a result, middle and higher income families migrated out of the cities. This phenomenon increased the proportion of lower income families in the urban neighbourhoods. According to the

Dutch policy makers and scholars this segregation is an undesirable situation for society [VROM, 1997, p. 20], [Musterd, 1999, p. 573 – 574], [Breejen, 2006, p. 3]. The segregation in urban area is a concept in literature called "the divided city". As a result of the high proportion of low income, the liveability is even further diminishing [Musterd, 1999, p. 573 – 574] and thus loosing competition with outer city expansions, ending up in a downward spiral [VROM, 1997, p. 3]. The policy makers increasingly realized that physical quality improvement alone was a weak basis to compete on and could not prevent that middle and higher incomes relocated in the new city expansions [minBZK, 2004, p. 70].

Third, compaction is seen as the only option for the government to cope with the still increasing demand of houses, without further affect the scarce natural environment [VROM, 1997, p. 16-17]. So more houses needed to be build within the existing city borders. To enable this, neighbourhoods needed to be restructured, to create more flexibility in planning. So in most cases it is necessary to demolish a substantial part of the real estate and infrastructure.

As a reaction on these developments a governmental note of the Dutch parliament in 1997 redefined regeneration as: "regeneration is a quality impulse, with the ambition to improve the social and economical vitality of a neighbourhood and the total city, by enhancing the neighbourhood's structure … the regeneration task not only embraces adjustment of the housing stock and the direct living environment. Also infrastructure, green area, business activity and other facilities inside the neighbourhood come up with regeneration" [VROM, 1997, p. 8, 24].

At this moment a web of policies is implemented, expressing the relevance of the task. Besides the ministry of public housing, spatial planning and environment (physical component), also the ministries of Home affairs (social component) and Economic affairs (economic component) implemented policy that covers the regeneration task. The umbrella of these policies is the Dutch Urban Policy (the English term for the *Grotestedenbeleid*). Each ministry provides budgets to these cities to help them to reach their targets. The budgets are just a fraction of the investment needed in the regeneration areas, the budgets act as investment leverage. The ministry of VROM provides municipality the so-called ISV budgets. Characterizing element of these budgets is that municipalities receive large autonomy in spending the money. The municipalities are considered to have more knowledge than the ministry on how to effectively spend the money. Besides the ISV budgets, another initiative for improving regeneration projects is running at the moment. This policy strives to accelerate neighbourhoods that are about to loose even more living quality. The policy is called the neighbourhood approach (in Dutch wijkenaanpak). Hundred neighbourhoods receive extra money from SHAs and from the government that has to be spend on social functions. Among these projects a specific group is worth mentioning; the so-called 'aandachtswijken' – meaning priority neighbourhoods- or more popularly called 'Vogelaarwijken' – named after a former minister of Public Housing, spatial planning and environment. These neighbourhoods – forty in total – are receiving increased attention and financial aid in the Netherlands. Last initiative, which is recently established, are the stimulation measures. These measures embrace a budget of about 300 to 400 million Euros to be spend on stimulation of the real estate market. Part of this will ultimately end in the regeneration projects [van Honstede, 2009], [Beckhoven et al, 2004, p. 6-7].

### *1.2 The Urban Regeneration Task*

Regeneration, restructuring, revitalisation, urban renewal or redevelopment of inner-city residential areas in the Netherlands, are all different terms for the same type of projects. What these terms seem to agree on is the prefix "re-", showing exactly that what is going on: the targeted area is already occupied with functions which will (partly) be *re*placed. For the sake of convenience we speak of regeneration, simply because it is the

most common used term[1]. The meaning of regeneration projects as we think of it today is a result of the described shift. Where the city renewal focused on a pure physical augmentation, the urban renewal augments the urban area on three dimensions: social, economical and physical. The objective changed from improving building quality to improving the liveability of the neighbourhood.

Regeneration are in most cases initiated by a SHA or the municipality. In case of the SHAs, they take the initiative for improving their real estate portfolio and improve the living conditions, which is necessary to prevent vacancy in their property. The municipality takes initiative for regeneration for the improvement of social and economical structure [Buskermolen, 2009],[de Ruiter, 2009]. Although there are some differences in emphasis, both parties strive for more living quality in the areas. The parties try to reach their goals by developing a more differentiated supply of houses, improve the building quality, enhancing public space, and by invest in social functions like schools and daycares. This can also be found in the Dutch Urban Policy (DUP).

Another characterizing aspect of regeneration projects, caused by the functions already occupying the area, is that all kinds of stakeholders are involved, e.g. municipality, inhabitants, SHAs, shopkeepers, real estate investors and so on. Among others, the mentioned stakeholders act in a network. Complex networks are a dynamic whole of stakeholders, which are mutual dependent [de Bruijn & ten Heuvelhof, 1995, p. 18-19]. As a result the hierarchy, in which government has a steering role, is lacking in a complex network [van Bortel & Elsinga, 2005, p. 4], [van Bemmel & Muller, 2005, p. 4].

The mutual dependency implies that it is impossible for parties to solve the problem separately [de Bruijn & ten Heuvelhof, 1995, p. 23], hence a sort of cooperation, intensive or just superficial, is necessary to come to regeneration. One of the problems that occurs in reaching this cooperation can be found on the field of establishing financial arrangements [VROM, 2003, p. 4], [ULI, 2009, p.7]. The characteristics of regeneration projects causes this problem; the low earning capacity and the high disinvestment needed to regenerate an area. Both parties behave opportunistic in order to minimize their financial contribution to the project.

Joint effort of the ministry of public housing, spatial planning and environment (VROM), the organization of Dutch real estate developers (NEPROM), the organization of Dutch social housing associations (AEDES) and the organization of Dutch municipalities (NVG) delivered a manual about how financial arrangements can be established. The manual sees regeneration as: "a joint undertaking of which the result is on a balanced way divided on the basis of distinguished responsibilities" [VROM, 2003, p. 7]. The manual describes how this can be done, as the title - "de Kosten In Beeld de Kosten Verdeeld - says in Dutch; when costs are known, the costs can be divided. Unfortunately, after five years, the provided methodology is still not generally accepted and in the projects in which it was implemented, it often did not had its desired effect [Linssen, 2009], [Wieggers, 2009]. Hence this research addresses the problem of coming to financial arrangements between SHA(s) and municipality, necessary to start a regeneration project, by evaluating the manual KIBKV.

[1] Search performed in Google Scholar in combination with "urban development" on 18-03-09. Results: regeneration: 800.000+, redevelopment: 123.000, urban renewal: 145.000, restructuring: 159.000

# 2 RESEARCH DESIGN

The forgoing chapter introduced the concept of regeneration and the problems surrounding it. This chapter further elaborates on the introduction with a problem analysis. The problem analysis identifies the exact direction of this research, verbalized in the research objective. In addition to this objective, research questions are formulated that are necessary to reach the objective. The sections that follow describe the research strategy employed and the research steps taken to answer the research questions and, in the end, led to this master thesis. In the last section an overview is given about the different chapters describing this research.

*<< If we knew what it was we were doing, it would not be called research, would it? >>*
Albert Einstein
US (German-born), physicist (1879 - 1955)

## *2.1 Problem Analysis*

From the information provided in the introduction it can be concluded that the regeneration task is both essential and difficult. Initiatives - whether taken by municipality or by SHA(s) – for regenerations are not receiving follow-up as they should have from the point of view of the housing policy [VROM, 2003, p.4]. Although joint efforts of municipalities, SHAs and real estate developers in improving this situation [VROM, 2003], all kinds of problems occur in the realisation process of the regeneration project [ULI, 2009, p. 7], [Breejen et al, 2006, p. 11]. One of these problems is the establishment of financial arrangements [VROM, 2003, p.4]. This researches focuses specifically on this problem. Therefore a further elaboration on this problem is made in the following section. The need for financial arrangements comes from the interdependency between municipality and housing associations; this is described in the first sub section. The difficulty of establishing these arrangements is enhanced by the typical low earning capacity in regeneration projects, which is described in the second sub section. This section is concluded with a problem statement.

### 2.1.1 Interdependency of Key-stakeholders in Regeneration Projects

The 'traditional' city expansion projects mainly deal with the owners on the, usually, agricultural destination. The regeneration projects however are planned in urban areas, hence a wider variety of functions are already located in the area. These functions are for example: infrastructure, commercial, residential and sometimes some industrial activity. Especially the residential function is well present in these neighbourhoods. Although the possession of houses and accompanying land is scattered, a huge part is typically occupied by social housing, often in possession of SHAs. This makes SHAs a key stakeholder in the whole process of regeneration. Besides that, SHAs have important knowledge about their tenants and the area [de Kam, 2005, p. 16]. This makes municipalities to a large extent dependent on SHAs in reaching the regeneration objective enforced by the DUP. The regulating document BBSH (in Dutch: Besluit Beheer Sociale Huursector) binds the SHAs to the regeneration projects [de Kam, 2005, p. 16]. The BBSH obligates the SHAs to act responsible on the following performance fields [VROM, 2000, p.8]:

- Providing proper housing for its target group;
- Maintain the quality of its real estate;
- involvement of inhabitants in policy and management;

- Secure financial continuity;
- Improvement of liveability in the neighbourhoods;
- Contribute to the combination of living and care.

Although the goals of the SHAs are to a large extent aligned with the DUP goals SHAs also are focused on their financial continuity [de Kam, 2005, p. 25]. On the other hand municipalities have their own agenda in the regeneration task partly coming from the DUP [Klijn & Teisman, 2003, p.141]. Regeneration has a major impact on the zoning of the targeted area, which makes the regeneration and the SHAs dependent on legislation and the authoritative municipality. These mutual dependencies force both parties to cooperate. The differences in initial objectives can cause problems when striving for cooperation in the regeneration process, leading to stagnation and disappointing quality [de Kam, 2002, p. 24], [Needham, 2006, p. 2], [Klijn & Teisman, 2003, p. 144].

Interdependency arises in many different forms [de Bruijn & ten Heuvelhof, 1995, p. 18] hence the described interdependency does not directly mean that the parties are also *financially* interdependent. When both parties agree on a plan in which all participants develop their own part on their own land in principle they can realize the project without establishing financial arrangements. In practice this does not happen very often, since there are a lot of factors that make the project more complex and make the parties financially interdependent. The financial interdependency can be seen as overlap in the financial obligation of the parties. For this overlap municipality and SHAs should make arrangements. Establishing these financial arrangements turns out to be a difficult process in practice [ULI, 2009, p.6], [VROM, 2003, p. 4], but is essential for the progress of the regeneration project.

### 2.1.2 Earning Capacity of Key-stakeholders in Regeneration Projects

Negotiations about financial arrangements are put on the cutting edge as a result of the typical negative financial result of these projects. From practice it turns out that most regeneration projects have to cope with deficits on their budget (Breejen et al, 2006, p. 11). Municipality and SHAs both have their wishes in the project but both have problems with financing it. It also implies that the gap between the financial goals of both parties is relatively large, causing problems in establishing financial arrangements [Ahadzi & Bowles, 2004, p. 968].

A number of reasons can be given for the deficits that regeneration projects have to cope with in comparison with the outer-city area developments. First, capitalized cash inflows from social renting are commonly accepted to be lower than the investment needed to create a new rental house. This gap, called 'unprofitable gap'[2], is extenuated by the SHAs' social responsibility. SHAs can try to correct this gap by selling part of the houses or develop real estate for the commercial market [de Vos, 2005], [de Kam, 2005, p. 24]. Since a relative big proportion of social housing is present in regeneration areas, the zero-alternative: keep on renting the old houses and performing minimal maintenance will be more profitable [Harvey & Jowsey, 2004, p. 105].

Second, the targeted areas are already occupied by all kinds of activity, when the area is regenerated this results in costs, associated with this current occupation. Such as: a certain part of the real estate has to be demolished; inhabitants of houses that will be rebuild should be relocated temporarily; and value of the demolished real estate has to be depreciated [Breejen et al, 2006, p.11].

At last, the central government is one of the drivers behind regeneration. The government considers it necessary to start regeneration projects for social purposes. This social purpose takes shape by the development of real estate with social functions and with an upgrade of public space. Additional funds for these ends are to some extent made available in the DUP III [VROM, 2009]. Municipalities and SHAs both will claim their

[2] Unprofitable gap is a free translation of the Dutch term 'onrendabele top'.

part of the budget, creating financial overlap which brings us back to the financial interdependency discussed in the latter subsection.

#### 2.1.3 Negotiation methodology "De Kosten In Beeld de Kosten Verdeeld"

The above described situation makes the establishment of Financial arrangements very difficult and thus threats the feasibility of the regeneration project as a whole. A joint effort of municipalities, SHAs and real estate developers in improving this situation [VROM, 2003], resulted in a 'manual' called: "when costs are known, costs can be divided" (in Dutch "de Kosten In Beeld? de Kosten Verdeeld", in short: KIBKV). The participants call the KIBKV a "preferred approach" for regeneration projects. The methodology should be used on the moment that key stakeholders - municipality, social housing associations and real estate developers - have displayed their ambition and have agreed on the need for cooperation, but financial feasibility has not yet been part of the process. At that moment, the plans have some space for optimization, investments needed are high and the division of responsibility is unclear. The KIBKV can give direction to and structure these negotiations and offers more transparency in the financial situation of the project. By this the developers of KIBKV intended to make the process of coming to a fair and feasible division of contribution easier. The methodology is divided in five steps:

1. Get agreement about the principles and basic assumptions
2. Calculate costs and revenues
3. Reflect: optimization of the plan
4. assessment: division of the financial result
5. Get agreement on tasks and risks

This method makes the process more transparent and seems to pursue a balanced and fair division of the financial result among the participants. In practice, the division of contribution according to the KIBKV method still appears to be subject of discussion. The reason for this, argued in this research, is that regeneration projects are all "one of a kind" -projects. Part of the principles and basic assumptions presented by KIBKV are transparent, but at the same time seem to be rigid. In other words, every regeneration project is different, applying the exact same method for the division of responsibilities and costs is therefore not always the "preferred option". When the KIBKV method is applied, often still no consensus about contributions is created as turns out from several cases in practice [Linssen, 2005].

#### 2.1.4 Problem Definition

The previous subsections result in the following research problem. Interdependency of municipality and SHA(s) makes cooperation of these parties necessary in regeneration projects. But this interdependency at the same time makes it difficult to reach cooperation. To come to cooperation, arrangements need to be established about the interdependencies. The research therefore focuses on the establishment of these arrangements, specifically those arrangements on the financial interdependencies. The manual KIBKV, which is meant to establish arrangements on a fair and balanced way, does not give satisfactory results in the regeneration projects. It turns out that, due to the rigid structure, parties applying the method experience unfit with their reality.

### *2.2 Research Objective*

Objective of this research is delivering a contribution to the process of regeneration projects by:

*Evaluating possible improvements in the rigidity in relation to the effectiveness of the manual "de Kosten In Beeld de Kosten Verdeeld".*

The research explores the potential of the KIBKV method. Also the possible improvements are designed and explored. Based on these insights the KIBKV method can

be improved and can possibly be implemented in regeneration projects with a more successful outcome. To reach this, the KIBKV method should keep its transparency, but it should also enable an easy adaptation per project. Flexible solutions should be found that do not threat the offered transparency. When the objective is realized, Metrum can use the improved method to enhance the efficiency in negotiation processes.

To reach the research objective, this research is divided in a number of research questions, which are discussed in section 2.4. First in section 2.3 the research model of which the questions are derived is given.

### *2.3 Research Model*

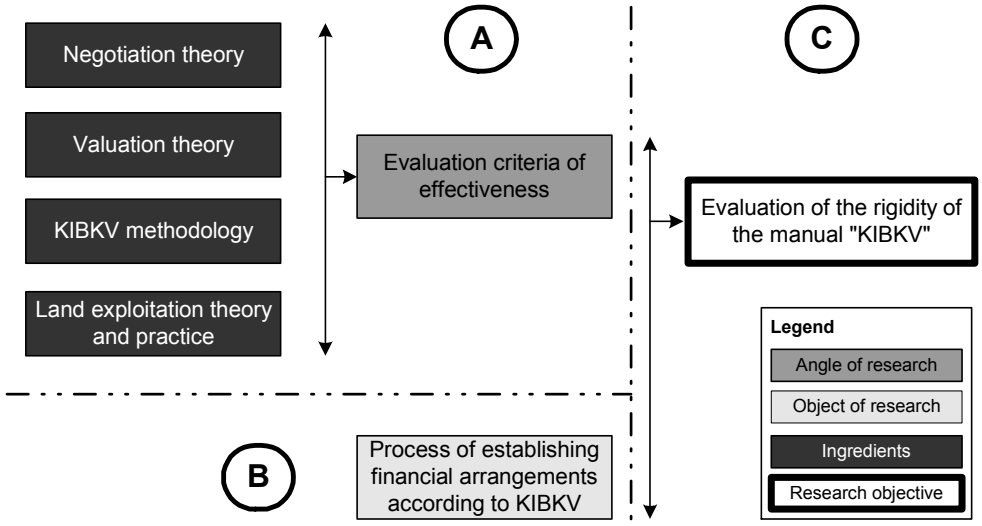


**Figure 1: Research model according to Verschuren en Doorewaard (2005)**

(A) A study of the KIBKV methodology, in the light of land exploitation theory/practice, valuation and negotiation theory provides evaluation criteria which can be used to (B) evaluate the process of establishing financial arrangements according to the KIBKV methodology. (C) The evaluation can be used to draw conclusions about the rigidity of the KIBKV methodology and how it can be improved.

### *2.4 Research Questions*

To reach the objective the research has to answer three central research questions.

1. *Which criteria can be used to evaluate the rigidity of the KIBKV methodology?*
    a. *How can the process of establishing financial arrangements be described?*
    b. *What is the purpose of establishing financial arrangements?*
    c. *What problem of establishing financial arrangements does KIBKV aims to resolve?*
    d. *How should the process be structured according to the KIBKV methodology?*

2. *What principles or basic assumptions of the KIBKV methodology are too rigid according to the formulated criteria?*
    a. *Which prescribed principles and basic assumptions of the KIBKV can be identified?*
    b. *Which of these principles and basic assumption are not always adequate in the process of establishing financial arrangement of a regeneration project?*

3. *What can be concluded about the rigidity of the used principles and basic assumptions in relation to the effectiveness of the KIBKV methodology?*

An elaboration on the research strategy and method of answering these questions can be found in next sections.

## *2.5 Research Strategy*

To answer the formulated research question an experimental research strategy was chosen. In this section is explained why quasi-experimental research was the most proper strategy for this research. The implication of the chosen strategy on the different research steps is explained in next section.
The research has an explorative purpose; it aims to evaluate a manual for establishing financial arrangements on a certain aspect; rigidity. It therefore is necessary that the research was not only focussed on the phenomenon, but also on the context of the phenomenon. The best strategy to do this depends on two criteria according to Yin (2009, p.8): "required control of behavioural events" and "focus on contemporary events". This research examined a contemporary event and needed to have much control over the behavioural events. To study the effect of rigidity on the effectiveness of KIBKV, the effect of more flexibility was examined. As a result, control was required because the flexibility around principles and basic assumptions cannot be found in practice. Based on these criteria, the experiment is the most suitable research strategy. Besides that, "an experiment is the research strategy with which you can have experiences with new situation or processes and with which you can analyze the effects of changes" [Verschuren & Doorewaard, 2005, p. 161]. Therefore it is typically useful for this explorative research.

The most pure form of experiment is the randomized experiment. "Randomized experiments are studies in which an independent variable is deliberately manipulated and a dependent variable is assessed" [Shadish et al. 2002, p. 13]. This means that two or more groups of units that are probabilistically similar to each other are needed. Therefore this "deliberate" research strategy acquires many units of research which was not possible with the researched phenomenon. A quasi-experiment was adopted to overcome this problem. Since quasi-experiments typically lack random assignment, more focuses should be laid on ruling out of alternative explanations. This means that there is more selectivity of the research units, which is a very welcome trait of the strategy since the experiment is not an issue of rat and mices. Although the internal validity is some weaker in quasi experiments, the quasi-experiment usually offers stronger external validity [Verschuren & Doorewaard, 2005, p. 165]. The strong external validity is created by the better fit to reality.

## *2.6 Research Method*

The research can be characterized as an quasi-experimental research. In this chapter the different research steps are drawn up based on this research type. Per research step, the method and collected data is described and it states the research questions that is answered. First step is the analysis of the context in which the research is embedded; regeneration projects. The second step focuses on the researched phenomenon; the prescribed negotiation methodology "KIBKV". The third step is the design of the simulation protocol. The protocol describes what and how research is conducted. For this step, input of the first two steps is necessary. The fourth step is the execution of both experiments. In the last steps, the collected data from the simulations are combined. Findings are subsequently presented in the conclusions. In this thesis the division of chapters is globally the same as these research steps.

### 2.6.1 Analysis of regeneration process

First step in the research was to get a good understanding of the regeneration projects and insight in how financial arrangements are established. In this step the following sub questions are answered:

*How can the process of establishing financial arrangements in regeneration projects be described?*
*What is the purpose of establishing financial arrangements?*
A literature study and interviews with experts was conducted to obtain the desired knowledge. The literature study focused on network theory since it is applicable for examining the playfield of municipality and SHAs. Besides, a broad range of policy documents from the Ministry of public housing, spatial planning and environment was examined. Last ingredient of the literature review are documents about area development in a Dutch and in an international perspective. The interviews were held with experts from different viewpoints to get a complete and objective view of the process. When the process description was finished, the findings were validated by an expert panel. This expert panel consisted of experienced consultants of Metrum from different disciplines in regeneration projects. From their experience in practice they reviewed the findings and suggested some adaptations to make a better fit with the reality.

| **Source type : Literature Study** | | |
|---|---|---|
| **Document type** | **Intermediary** | **Search for:** |
| Articles | http://www.scholar.google.nl, | Network theory, Network steering, financial arrangements, financial interdependency, regeneration/urban redevelopment/urban renewal, area development |
| Policy Documents | http://www.vrom.nl | Samenwerking, financiële afspraken |
| Books | http://www.vastgoedkennis.nl, www.utwente.nl/ub | Gebiedsontwikkeling, herstructurering, area development, regeneration, restructuring, urban renewal |
| Specialists journals | Real Estate, Property NL, Building business, Building Innovation, Aedes Magazine | Totstandkoming, financiële afspraken, samenwerking, woningcorporaties, gemeentes |

| **Source type : Interview** | | |
|---|---|---|
| **Function** | **Organization** | **Name** |
| Project leader, development | SHA | Hans Krabbe, Jos Buskermolen |
| Department spatial investments | Municipality | Bram de Ruiter |
| Policy makers | Responsible Ministry | Claudia Veltrop, Wouter van Honstede |
| Consultants on the field of process management, economic calculations, land policy and real estate | Metrum | Kasper van Zundert Michiel Bots |

| **Source type : Expert Panel** | | |
|---|---|---|
| **Function** | **Organization** | **Name** |
| Experienced consultants in Regeneration projects | Metrum | Stan Engels, Michel Rauwers, Ronald van den IJssel, Jan Janssen |

### 2.6.2 Analysis of the negotiation method: "de Kosten In Beeld, de Kosten Verdeeld"

With the first step, knowledge is obtained about the context in which the KIBKV method is implemented. So the logical second step is the analysis of the method itself.

Prescribed method of coming to financial arrangements
First the KIBKV method should be analyzed to answer the sub research questions:

*How should the process be structured according to the KIBKV methodology?*
This is done by analyzing the manual itself and by interviewing people who have worked with the method. Objective of this research step is to determine how the process should be structured according to the KIBKV. Besides that it should be determined what specific process outcome is aimed for with KIBKV.

| **Source type : Literature Study** | |
|---|---|
| **Document type** | **Name** |
| Policy Document | De Kosten In Beeld de Kosten Verdeeld |

| **Source type : Interview** | | |
|---|---|---|
| **Function** | **Organization** | **Name** |
| Department spatial investments | Municipality | Bram de Ruiter |
| Policy makers | Developer of KIBKV | Wouter van Honstede |
| Consultants on the field of process management, economic calculations, land policy and real estate | Metrum | Kasper van Zundert,<br>Michiel Bots,<br>Erik Linssen,<br>Rob Wieggers |

Theoretical Assumptions
This research step is needed to give this research more direction. The KIBKV method is based on the assumptions about how the process of establishing financial arrangements can be improved. This research step therefore aims to answer the sub research question:
*What problem of establishing financial arrangements does KIBKV aims to resolve?*
Data is collected from two different sources. Of course the policy document self is studied. Besides that experiences with the method should provide useful knowledge. These experiences are gathered by interviews. Next to a generic focus, the research is also conducted with a project specific scope. This project specific scope focus consists more or less of a case study. The case study addresses the regeneration of Presikhaaf, in which the KIBKV method is applied.

| **Source type : Literature Study** | |
|---|---|
| **Document type** | **Name** |
| Policy Document | De Kosten In Beeld de Kosten Verdeeld |
| Project documents | The application of the KIBKV model on project Presikhaaf |

| **Source type : Interview** | | |
|---|---|---|
| **Function** | **Organization** | **Name** |
| Department spatial investments | Municipality | Bram de Ruiter |
| Policy makers | Developer of KIBKV | Wouter van Honstede |
| Consultants on the field of process management, economic calculations, land policy and real estate | Metrum | Kasper van Zundert,<br>Michiel Bots,<br>Erik Linssen,<br>Rob Wieggers |

Design of a treatment that potentially solve the problem
To determine if the KIBKV method contains too rigid assumptions, a experiment is held. As a preparatory step of this experiment a treatment is developed that is needed to evaluate the rigidity. This treatment made the method as flexible as possible. This research step therefore answers the sub question:
*Which prescribed principles and basic assumptions of the KIBKV can be identified?*
To develop this treatment, the KIBKV manual is further examined. All rigid basic assumptions or principles were then identified.

| Source type : Literature Study | |
|---|---|
| **Document type** | **Name** |
| Policy Document | De Kosten In Beeld de Kosten Verdeeld |

### 2.6.3 Design of the Experiment

When the information was gathered from the first two steps, direction was given to the remainder of the research. In the remaining pure empirical part, the causal relations that were developed was tested with an experiment. The experiment consisted of two negotiation simulations. These negotiation simulations are a time and money intensive method, so it is important to clearly define what is necessary to measure and to rule out threats to validity as much as possible. To ensure this, a simulation protocol was established. The experiment was designed in such a way, it would demonstrate the researched causal relation. Important aspect is the development of the case which is addressed in the experiment. In the appendices the used fictive cased is clearly documented.

### 2.6.4 The Experiment

After the experiment was designed, the empirical part of this research started. In other words the experiment was executed according to the simulation protocol. The empirical part answers the following research question:
*Which of these principles and basic assumption are not always adequate in the process of establishing financial arrangement of a regeneration project?*

### 2.6.5 Conclusions

At last conclusions were drawn from the findings, answering the following research question:
*What can be concluded about the rigidity of the used principles and basic assumptions in relation to the effectiveness of the KIBKV methodology?*
The conclusions answer the question if more flexibility of all principles and assumption enhance the effectiveness of the KIBKV methodology. Based on these conclusions adaptations to the standard KIBKV method are made.

## *2.7 Outline*

This thesis is divided in 8 chapters, combined giving a complete overview of the performed research. In the first chapter you, as a reader, are introduced to the subject of this thesis. In this second chapter the research design is described. The following two chapters encompass the theoretical part of the research. Chapter 3 elaborates on the process of regeneration to enhance the understanding of the phenomenon and its context. Subsequently, in chapter 4, the KIBKV manual is analyzed thoroughly and improvements are suggested. Then the empirical part of the research follows in chapter 5 and 6. The improvements from chapter 4 are tested in an experiment. In chapter 5 the design of the experiment is given. Chapter 6 reports the results from the experiment. In chapter 7 the collected data is analyzed. This all results in chapter 8 in which the conclusion that can be drawn from the research are given.

# 3 DESCRIPTION OF THE RESEARCHED PHENOMENON AND ITS CONTEXT

The researched phenomenon is the KIBKV method. Just like most phenomenons in the complex world in which we live, the phenomenon can not be seen as an independent process. Many aspects influence the phenomenon. To effectively study the phenomenon, these influences need to be identified. Therefore this chapter thoroughly describes the process in which the KIBKV is embedded. On a abstract level the process of regeneration is described, followed by the process of establishing financial arrangements. At last, the context in which the process of regeneration is embedded is described.

*<< In the middle of difficulty lies opportunity. >>*
Albert Einstein
US (German-born), physicist (1879 - 1955)

## *3.1 The Process of Regeneration*

Urban regeneration projects are characterized by the fact that the area is already occupied with functions. This has its impact on the process of regeneration, which distinguishes itself from the traditional land developments. The differences with traditional land development can be explained from two different perspectives: the activities and the stakeholders. In the following sub sections the process of regeneration is described using these two perspectives.

### 3.1.1 Phases and activities

The area development process describes the transformation of a piece of land from initiation to maintenance inclusive. This will seem a satisfactory definition of area development, but some scholars like to add some specific criteria to it. According to De Zeeuw (2007) Area development is a multifunctional and multi stakeholder problem. Dewulf et al (2004) further specifies this: "integral area development means interaction between governments, between governments and civilians/interest groups and between governments and private parties. Dewulf et al (2004) also stretches the complexity of area development in product and process.

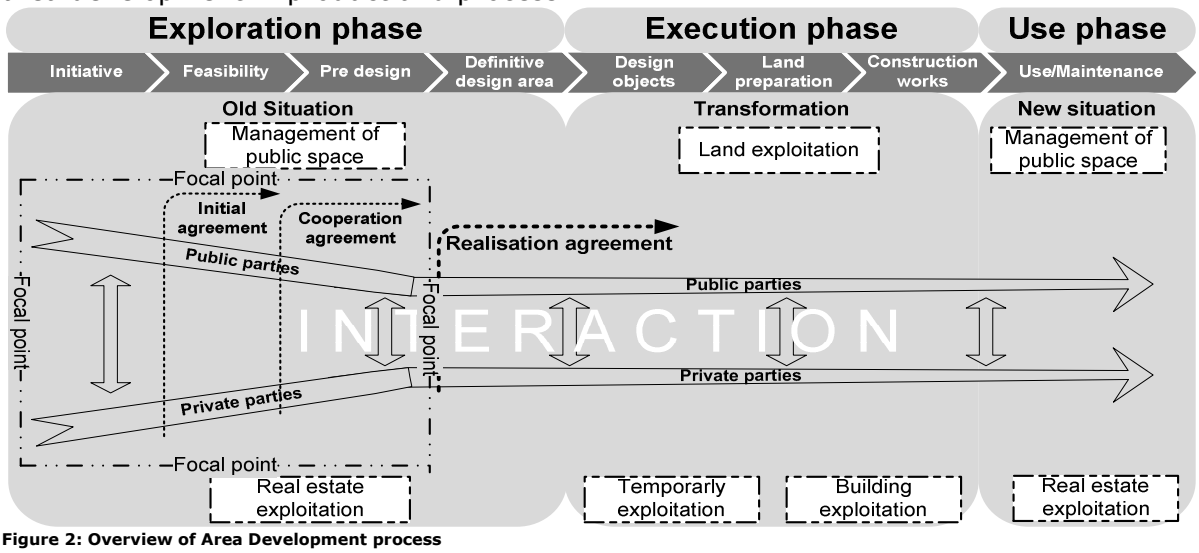


**Figure 2: Overview of Area Development process**

The process can be schematically divided in phases which can be distinguished in most area development projects; this is made explicit in Figure 2 [VROM, 2003, p. 9], [Commissie fundamentele verkenning bouw, 2008, p. 13-14]. These phases do not differ

in regeneration projects. Also the activities do not differ that much, except that normally more demolishing has to be done in regeneration projects. The stakeholders that are involved are varying over the different types of area developments. In regeneration projects more different stakeholders can typically be found. The management with these stakeholders is an important task that stretches from initiative to a new development. Two parties in the core of this process, especially in regeneration projects, are the municipality and SHA(s). These parties are responsible for the realisation of the regeneration project, because they have the financial resources and the objective to serve the social interests. According to Gray (1989, p.11), this is the essence of cooperation: "collaboration involves a process of joint decision making among key stakeholders of a problem domain about the future of that domain". Part of the joint decision making is the establishment of financial arrangements. These arrangements are thus only made between the municipality and SHA(s); other stakeholders are only involved sideways. This research focuses on the process of these financial arrangements, so stakeholders not being municipality or SHA fall outside the point of focus.

In the figure the focal point of the research can be found. The focal point is stretching approximately up to the realisation. In the process of coming to realisation many different actions are performed by the different parties which are outside the scope of the research. This research only focuses on the establishment of financial arrangement, one aspects of the complex process in the focal point. The financial arrangements can have different forms in the process – intention, cooperation, and realisation agreements can all contain some financial arrangements – which are all included in the proposed research. This demarcation is showed in Figure 3.

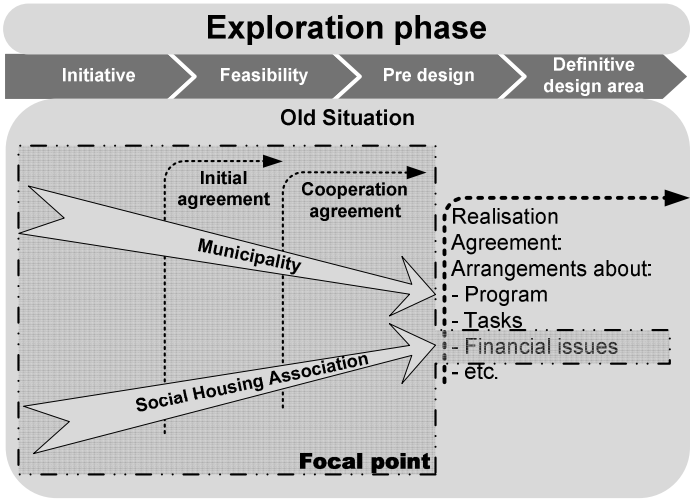


**Figure 3: Demarcation of the process of financial arrangements**

Reaching agreement is the responsibility of the participants of the intended cooperation [Gray, 1989, p. 14]. In practice many different arrangements with even more different names are established [Buskermolen, 2009], [Bots, 2009]. Often these arrangements are made in different steps, from abstract to concrete [van Zundert, 2009]. Very similar to these steps are the steps that Gray (1989, p.14) describes as being a typical process of reaching agreement:

1. "the joint search for information about the problem." In practice initial agreements are often the keystone of such a phase. Intentions are drawn in the document in which the problem is confirmed. This document does not have any legal binding.
2. "the invention of a mutually agreed upon solution about the pattern of future exchanges between stakeholders". The cooperation agreement is established when problem and solutions are explored. In this document the terms for cooperation are written down. This document has legal binding.
3. "ratification of the agreement and plans for implementing it." When the arrangements are made in three steps, the process is often finalized with a realization agreement. In this document is described what the participants are obliged to do and contribute in the cooperation.

### 3.1.2 Stakeholders

One of the characteristics of regeneration projects are all the different stakeholders that are involved. To complete the description of the regeneration projects, in this section a limitative list of the most important stakeholders is given.

Public Parties:

- Municipality: sometimes initiator, responsible for the urban planning and execution of the DUP.
- Ministry of Public housing, Spatial Planning and Environment (in Dutch: 'VROM'): initiator and coordinator of the DUP [VROM, 2009].
- Province: partly responsible for planning policy

Interest groups:

- Inhabitants: due to regeneration they are forced to (temporarily) leave their houses, due to quality improvements they can be faced with an increase of rent.
- Local residents: They can suffer from inconvenience of construction activities and their real estate can cope with devaluation.
- Environmental organization: they come up for the well being of the environment.

Private Parties

- Entrepreneurs in regeneration area; they have to cope with loss of income during construction, in some regeneration projects new accommodation is incorporated for the entrepreneurs.
- Developer: will develop certain profitable parts of the regeneration
- Social housing associations: can have the role of developer of (social) housing and/or the commercial activities of the regeneration. This can - but is not a fixed condition - be a derivative from their possession of real estate and land in the area.
- Contractor: can perform the construction activities necessary for the regeneration.

This research only focuses on the municipality and the SHA(s), since these parties are subject to the most financial overlap as meant in this research. If necessary, other stakeholders will be threatened sideways. The developer, which role is marginal in most regeneration projects, will be dealt with like the SHAs. In fact SHAs are a specific kind of developers. The need for financial arrangements also arises between SHA(s) and inhabitants when the houses of the latter will be demolished in regeneration projects. The need and the establishment of these financial arrangements will not attract specific attention in this research, but will be dealt with along side when necessary.

## *3.2 Process of Establishing Financial Arrangements*

The process of a regeneration project is characterized by the cooperation of the municipality and social housing association. The negotiation process that follows is a conversational interaction among collaborating parties as they try to define a problem, agree on recommendations, or design action steps" [Gray, 1989, p. 25]. Besides that, negotiation about financial arrangements, which is the focus of this research as can be seen in Figure 3, is in most cases indispensable. The process that leads to these financial arrangements is described in this chapter. Although the cooperation can be institutionalized in different ways, on an abstract level these financial arrangements are always the same. Essence of the negotiation process is that there is more than one set of terms that could produce an agreement [Kennedy, 1998, p.6]. In the following subsections this concept is further described. First a definition of financial arrangements is given. Then the Starting point of financial arrangements is described; the interests and resources of involved parties. When these parts then decide to cooperate, financial interdependencies originate, about these interdependencies arrangements are necessary. These financial interdependencies are described in the last sub section.

### 3.2.1 Definition of Financial Arrangements

First step in this elaboration on the process of financial arrangements is the definition of the financial arrangements itself. Although the meaning of financial arrangements will seem obvious, an accurate description is necessary for the research since concepts appear to be more nuanced in practice. This section therefore will define the exact meaning of financial arrangements in this context. Municipality and social housing associations are interdependent in regeneration projects which creates the need for cooperation [de Bruijn & ten Heuvelhof, 1995, p. 23]. To come to this cooperation, arrangements are necessary, but this does not directly implies that also *financial* arrangements are needed. The need for financial arrangements arises when there is *financial* interdependency between both parties. A broad but useful definition of financial arrangements, that simultaneously shows the connection with the financial interdependencies, is derived from Fishers' definition (2006): "a financial arrangement is the right to receive, or obligation to provide, something of economic value".

The definition shows that a financial arrangement is an arrangement between two or more parties involved with a transaction of economic value. The term economic value points out that it is not necessarily a cash transaction, but a transaction of resource or action that can be expressed in a currency. The fact that the transaction of economic value happens between two parties creates the financial interdependency between both parties. This immediately underlines the statement that the definition is broad: the purchase of a bottle of milk in the supermarket is also a financial arrangement. Namely a dollar is paid by one party to another party, to receive the bottle of milk. This is an example in which the financial arrangement is not made very explicit, since it is by far not a one-of-a-kind transaction. The financial arrangements made between municipality and SHA on the other hand are indeed one-of-a-kind and are thus made more explicitly.

Besides that the financial arrangements are explicit in contrast to the purchase of a bottle of milk, the financial arrangements are most of the time not instantly made. In Figure 4 this is visualized, both parties will initially take a position from which they will begin negotiation. This position is schematically shown in the figure by a certain contribution of the party to the total costs of the project. Since there is more than one set of terms that could produce an agreement, parties are not eager to accept the first bid [Kennedy, 1998, p. 6]. Hence somewhere between these *initial positions* both parties have to meet each other in order to settle. When they reach each other the financial arrangements can be closed. The figure shows the conflicting aims which participants are wrestling during the negotiation process. On the one hand how to configure the collaboration so as to achieve the greatest possible level of mutual gains, and on the other hand how to get the best deal for you [Child, 2005, p. 144]. Or as Bacharach (1981, p. 4) describes the dilemma: "bargainers need to reach some settlement but, at the same time, wish to settle on terms favourable to themselves". This corresponds to the statement of De Bruijn en ten Heuvelhof (1995, p. 9), who describe that to get something done in networks, steering is based on a certain extent of voluntariness. In networks, there is no hierarchical structure, so public and private parties are on the "same level". Authoritative steering methods are therefore not useful; it is not possible to steer the other party into a certain arrangement. To reach an arrangement, the voluntariness of all parties is needed to meet each other somewhere in the middle. Hence there should be some perspective on value for a party, an incentive [Bacharach, 1981, p.4].

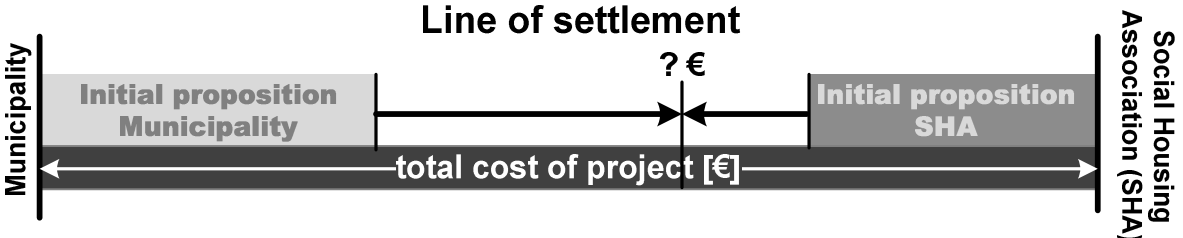

**Figure 4: Line of Settlement**

The goal of the negotiation process is the establishment of financial arrangements, in terms of the figure spoken: that both parties come to each other. Although the arrows seem to tell that this is a straightforward process, these kinds of processes are volatile in networks. This volatility comes in two forms: temporal volatility and substantial volatility. Temporal volatility means that the process is irregular in time (no clear and unambiguous, distinct phases) and no clear beginning or endpoint can be distinguished. Substantial volatility means that the content of the problem, solutions and actors changes overtime [Bruijn & ten Heuvelhof, 1995, p. 19-22].

The key elements that can be derived from the definition of financial arrangements are 'the transfer of economic value' and that the arrangements are binary. These are therefore the conditions that have to be fulfilled to be qualified as a financial arrangement. This means that a financial arrangement should be made between at least two parties and that the arrangements involve transfer of economic value.

Moreover an extra condition is that the economic value of the financial arrangement is determined with mutual approval. This last condition is to prevent that arrangements between two parties only encompass a division of tasks, without a negotiation or even a settlement of financial issues. Now examine the following case; parties agree on a division of tasks and again decide that no funds have to be transferred from one to the other, but this time the decision is based on a calculation of the contributions that both parties do. In this case both parties made an arrangement about their efforts of which the economic value is known. Hence in this case it is a financial arrangement.

### 3.2.2 Roll of Financial Interests and Resources in Negotiation Process

If a party takes initiative for the regeneration or not, when a party is willing to cooperate in a regeneration project, the party will also have their interest in the project. This does not mean that these interests are perfectly aligned to each other. At this point fundamental differences emerge between private – which is more or less the status of a SHA - and public – in this case the municipality - sector. The private sector is accountable to and seeks to maximize benefits/minimize costs to a closed circle. The parties are not inherently interested in the impacts on external interests (except to the extent that they are forced to by law) [Lichfield, 1998, p. 100]. The public sector is less focused on these aspects, but must be more focused on serving the public interest [Lichfield, 1998, p.100]. Municipality are for example interested in fulfilling their ambition to create a more diversified composition of population in their neighbourhoods, the SHA will be interested in rebuilding some parts of real estate contending with high levels of vacancy.

These interests are not being priceless for both parties. Municipality and SHA will determine for their selves what the regeneration and especially certain aspects of the regeneration are worth for them. This is also very much dependent on the available financial resources. When they reach agreement to collaborate "public and private parties interests pool their resources and undertake joint planning to tackle economic redevelopment, education, housing, and other protracted problems that have plagued communities" [Gray, 1978, p. 8]. In the following subsections the financial interests and resources of respectively municipality and SHA are discussed. With this knowledge the line of settlement, presented in first subsection can be extended, providing more insight in the process of establishing financial arrangements. The financial interests can be found in the proportion of the total cost that the parties take for their account. The resources are visualized by the lower part of the figure. This shows what proportion of total cost of the project a party can take for its account. When these bars do not overlap, it will be clear that there are simply not enough financial resources to execute the project.

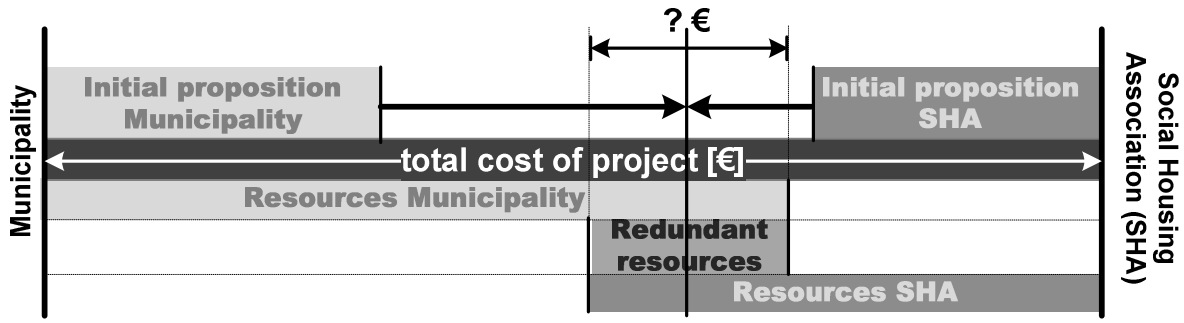


**Figure 5: Extended line of settlement**

Interests and Resources of a Municipality

Municipality will strive to keep the cost of regeneration as low as possible, without downgrading their ambition which will result in loss of quality. To reach this, they will try to give SHAs as much of the financial responsibilities as possible. This is because it is believed that SHAs have more earning capacity in the regeneration neighbourhoods [de Ruiter, 2009]. Municipality can utilize all kinds of funds for the regeneration projects which will else be used for maintenance in the specific area. For example: maintenance of public space and infrastructure. In some cases, for example when public space is made available for houses, municipalities can earn money by the exploitation of land. In first instance the municipality will try to keep the project within the available budgets. Often this is not possible which challenge the municipality to go beyond a threshold by making extra money available. All kinds of possibilities are there for municipalities to do this, like increasing real estate tax or by saving on other fields. Problem is that the municipalities are tied to their budgets. Adapting of their budgets is not easy to do.

Interests and Resources of a Social Housing Association

Although SHAs have their social responsibility, laid down in the six performance fields of the BBSH [VROM, 2000], it is not the only motive for SHAs to initiate a regeneration project. Regenerations are also initiated from a financial and a continuity motive. It is possible that houses are occupied, when the SHA decides to regenerate the houses. This is then a strategic choice to prevent the houses from further decay to keep them rentable in the (near) future. A SHA strives to keep its stock of houses qualitative and quantitative up to date. This is called strategic stockpile management (in Dutch: strategisch voorraadbeheer). The reason for regeneration is for SHAs therefore a more economical choice than for municipality. Important factor in this economical choice is the book value of their property in the regeneration project. Real estate with (still) high book value will be difficult to regenerate. Besides that the program of the regeneration project is important, SHAs need space in the program to develop more expensive houses with which they can make up the loses they make on social houses. Of course they profit from improved public space – value of the houses will rise with higher quality of the environment – but they will be prudent with contribution to the public space. For SHAs there is also a sort of threshold in the projects. When the project itself cannot be developed without a loss, their equity position is harmed which is a serious threat for the viability of any company. Attracting additional equity is then the only sound option to invest in the regeneration project. In practice SHAs do this by the selling of existing property, an easy way to increase equity since book value of their property is often much lower than the market value.

### 3.2.3 Subject of Financial Arrangements: Financial Interdependencies

It is already argued that the need for financial arrangements arise when financial interdependencies exist, but it is not yet defined where these financial interdependencies come from. Whereas knowledge of the origin of the financial interdependencies will help to get further insight in the process of establishing financial arrangements. The existence of financial interdependencies depends on many factors. It is possible that regeneration projects are developed without financial interdependencies and thus without financial arrangements. This will be the case when both parties agree on a regeneration project,

the SHA will renovate their houses in the area (which they also own) and the municipality will upgrade public space. Also the parties never negotiate about a financial contribution from one party to the other. Finally these arrangements are never made explicit in a contract, because it would then be "an obligation of returning something of economic value". In this case no financial interdependency exists and probably the regeneration efforts of the parties do not influence each other at all. This will in common not be the case in the more complex regeneration projects. Some examples of financial interdependencies are [van Zundert, 2009]:

- Liveability of a neighbourhood depends on a combination of the quality of the public space and its real estate. When one of these two are upgraded, it will only have a satisfactory result on the liveability when the other component is upgraded as well. Therefore the municipality or the SHA will always try to commit the other party to an upgrade of either public space or real estate. When this is fixed in an agreement, financial overlap emerges in the form of obligations to deliver economic value.
- Land or real estate possession; when the regeneration project comprehends a (small) restructuring of the land, the chance exists that land should be transferred to the other party. In this case they will have to agree on the price of the land.
- The municipality can ask the SHA to contribute in the upgrading of public space since they profit more than proportionally from the improved public space.
- Both parties can decide to do a joint realization of some social functions, or the municipality can ask the SHA to realize a social functions. In these cases, again they need to agree on financial implications of this (co-)realization.
- When funds are made available by the national government for the regeneration projects, both parties will apply for a share in these funds. Agreements about this division are once more necessary.

Now, when the definition of financial arrangements is used, it is possible to recapitulate the given interdependencies by noticing that in all cases financial overlap may be created. As mentioned before, the negotiation process of networks is volatile, which means that these financial interdependencies can change during the process.

## *3.3 The Context of Regeneration*

The process is embedded in its context. By their interaction, process and context influence each other. For the research the process can therefore not be seen separate from the context. In this chapter the context is analyzed. This is necessary to identify influences from the context on the examined process during the case studies. The context is discussed on four fields: the political context, the legal context, the economic context, and the social context. These field are a variant on the commonly used macro environmental PEST-analysis. Some differences with the PEST analysis; the technological view is not included, because no important influences are identified. Also a specific sub section is devoted for the legal context, which could also be part of the political context. Due to its importance, a specific sub section elaborates on the legal context.

### 3.3.1 The Political context

The paradigm shift that is described in the chapter about urban regeneration still determines the policy on urban planning. The focus moved, more and more, towards an integral approach of urban governance. This resulted in the Dutch Urban Policy (DUP) in which aims are focused on physical, social and economical improvement of the inner-city. The budgets specially meant for the implementation of the DUP policy is the IUR budget (Investmentbudget Urban Redevelopment, in Dutch: Investeringsbudget Stedelijke Vernieuwing, ISV). The 31 biggest municipalities of the Netherlands receive their share of the budget directly, the other municipalities depend on the province administration. The allocation of the budget is calculated with a formula containing variables for the number and state of the houses and some liveability indicators [VROM, 2009]. The ISV budget are assumed to have a multiplier effect of 10, which means that one Euro invested from

the ISV, will attract 10 Euro of private investments [den Breejen e.a., 2006, p. 6). The ministry also appointed 40 projects that received the label "priority neighbourhood" (in Dutch: aandachtswijk). These neighbourhoods receive extra money to accelerate the social and economical improvement of the area. This can but will not always lead to a regeneration in the physical sense of the word. The extra budget that is invested in the neighbourhoods also should have a multiplier effect on investments. The extra budgets that are granted by the national government influence the negotiations. The gap between the propositions of both parties is reduced due to the extra funds that are made available by the national government.

Another part of the political context are the ambitions of state government or municipality. The ambition that is declared by politicians can be very high, which will be sometimes nearly impossible to reach, making the negotiation process unnecessarily difficult. In some cases this high ambition is declared for the wrong reasons like opportunism, a problem that is especially present in times of elections.

### 3.3.2 The Legal context

One of the causes for the strong dependency between municipality and SHA is the right on self realisation. This means that every person has the right to realize plans of the government when capable. The SHA appeal to this right when a restructuring is started. This right seems to be in a conflict with the European procurement law, which prescribed that works of these sizes should be procured publicly. This can have its effect on the way municipality and SHA work together which moreover has its effect on the way financial arrangements are established. The content is for a large part determined by the type of cooperation that is chosen for. The cooperation models differ in the division of tasks and risks. The different types of cooperation are [Bindels e.a. 2005, p. 14-15], [Habiforum, 2009]:

- Traditional model: in this model the municipality has full direction over the process. The necessary lands are obtained and subsequently developed. In this case there is no cooperation between public and private parties. Since there will be no cooperation in this model, also no financial arrangements are made. Moreover, in regeneration projects, this model is not very useful and will not be found in practice.
- Building-claim model: in this model responsibility lies mainly in the hands of the municipality. The municipality buys the ground from the owner in the regeneration area and prepares it for construction after which the former owner can buy it back. In this type risk, contribution and added value is divided between parties, cooperation is limited to the minimum.
- Joint venture model: this model embraces the only real partnering model. Private parties and municipality together develop the area with the share of profit and risk. This type is often applied in the city expansion projects in the Netherlands.
- Concession model: in this model the responsibility and control lies very much at the side of the private party. The municipality basically specifies the area and the boundary conditions and the private party will develop it. This model is not applied very often in area development in the Netherlands, but some experience is collected in the development of infrastructure, schools and governmental buildings [Bult-Spiering & Dewulf, 2006, p. 120-122]

The choice of partnership type will depend on different factors. Some examples are: the desired risk distribution, the possession of land, desired control over the end result, the preferences of the private parties [Wolting, 2008, p. 158].

### 3.3.3 The Economical context

Regenerations are also influenced by the economic context, which is made very clear in today's conjuncture. The low conjuncture in 2009 is accompanied with decrease of house prices and less demand for new houses. This means that developers and SHAs can earn less money with the development of new houses. On the other hand the government is

establishing investment funds which is an artificial increase of demand. The fund is meant to stimulate real estate projects that are put on hold as a result of the financial problems. These opposite mechanisms are both important to be aware of during the case study.

On a smaller scale there is another influence on economic level; the presence of competitive projects near by. Not only the supply of new houses will be bigger, but also the pressure on the municipal funds will be higher. Other specific traits of a regeneration project influence the project as well. The density of houses in the old and planned situation, the proportion of houses for the commercial market, the necessary investments in public space and so on.

#### 3.3.4 The Social Context

Last field of the context of the regeneration is the social domain. An important step in regeneration is the social plan that is made with the occupants of the buildings that will be demolished during regeneration. In the social plans the SHA and sometimes the municipality make arrangements about the compensation for all caused harm, for temporary housing and for new rent prices. These arrangements will for a large part determine costs, future income and thus financial capabilities of the SHA. Another social aspect that is important, is the liveability in the neighbourhood before the regeneration. The more worse the situation, the more investments are needed to improve the situation. These investments need to be made in public space and real estate with social functions (such as a school). It will be clear that the social context also threatens the financial feasibility of a regeneration project and influences the establishment of financial arrangements.

## *3.4 Conclusion*

In this chapter a simplified version of the regeneration process is described. The process is simplified, since the reality is far too complex to fit in one figure. Also in reality many different variants of the process occur. But, the process description creates a common view of the process on the main line. It more or less provides a shared dictionary. It also is a starting point for a more detailed description of one sub process in the regeneration process; the process of establishing financial arrangements. The process of establishing financial arrangements is described and conceptualized. This also is meant for creating a common understanding of the phenomenon, but is also input for the design of a realistic simulation. Subsequently a description is given of the context of the phenomenon. This is also used in the design of the simulation. As described before, the context inevitably influences the phenomenon studied. When these influences are not taken into account in the simulation, the simulation will not be as realistic as necessary. Hence, when reading the next chapters, this chapter should be kept in mind.

# 4 THE KIBKV METHOD AND ITS POTENTIAL IMPROVEMENTS

Now the context of the KIBKV method is described into detail, the phenomenon itself can be further analyzed. First, a complete description of the KIBKV method is given. The second section elaborates on the theoretical propositions that are at the basis of the KIBKV method. A transparent method is prescribed for the division of costs and income in the regeneration projects. But to reach this transparency the method sacrificed on its flexibility, while all projects, in which the method is applicable, are unique. To examine the flexibility in more detail, the rigid elements of the method are identified in the last section.

*<< I am a man of principle, and one of my basic principles is flexibility. >>*
Everett Dirksen
US senator (1896 – 1969)

## *4.1 Description of the KIBKV Method*

The "preferred method", called KIBKV, is a result of cooperation between the problem holders: ministry of public housing, spatial planning and environment and the umbrella organizations for social housing associations (AEDES), real estate developers (NEPROM) and municipalities (VNG). With the method that was published in 2003, the developers wanted to provide a method to make negotiations about financial arrangements for regeneration projects easier. These negotiations between municipality, SHA(s) and developer(s) cope with problems, making the process very slow and in some cases collapse. This is of course not simulating for the progress of the regeneration projects, which is of interests for all these parties. That is why it was possible for the four organizations to work together; it was of interests for all these parties, or the parties they represent, to solve the problem. This is at the same time a paradox; if they put effort in resolving the problem, why is it a problem in the first place? Solution to this paradox is easy when single cases are separately analyzed; although party A wants to close a deal, which is a shared interest, it wants to get the best deal out of it. For participants, financial arrangements are always a balance between their own objectives and the shared objectives [Bacharach & Lawler, 1981, p.4]. A phenomenon that is noticed by Child et al (2005, p. 144) "two frequently conflicting aims … first how do we configure the collaborative agreement so as to achieve the greatest possible level of competitive advantage for the joint enterprise, and secondly how do we get the best deal for our company".

The method assumes the following situation in which it is wise to implement the method: "Involved parties have reached agreement about the desirability of the regeneration. The outline of the program is clear; they reflect a high level of ambition. The plans still have a conceptual status, hence adjustments are possible for optimalization goals. The financial feasibility of the plans is not yet guaranteed and discussed. It is clear that investments will be extensive. Division of costs, income and risk is not yet made, but participants are eager to make these arrangements. At that moment the KIBKV can be of help, according to the developers" [VROM, 2003, p.5]

The method sees regeneration as a joint venture of which the result, based on separated responsibilities, will be divided on a balanced way between the participants. Hence it does assume that there is a certain voluntariness for cooperation among all participants. This voluntariness is originated by the mutual dependency of the participants [de Bruijn

& ten Heuvelhof, 1995, p.18], [Gray, 1989, p.11]. The whole method is based on the belief that a transparent process, providing insight in the calculations and division of income, cost and risk, would smoothen the process. To reach this, the method provides an unambiguous calculation method. By calculating and reasoning consistently on equal principles, participants will quicker reach agreement. Consequently, the process sacrifices a certain level of flexibility. Looking to the complex context of the process of establishing financial arrangements, as described in the latter chapter, this is not a desirable situation. Regeneration projects are one of a kind projects and therefore it is questionable if the method can go by tailor made solutions.

The method describes the process in five subsequent steps:

1. Get agreement about the principles and basic assumptions
2. Calculate costs and revenues
3. Reflect: optimization of the plan
4. assessment: division of the financial result
5. Get agreement on tasks and risks

Three core principles in the method that are important to mention are:

- The KIBKV method approaches an area development as an integral project; a joint venture of the participants. Hence all costs and income are put on one profit and loss account. The profit, but in most cases the lost of the joint venture is then divided between the participants. The distribution rule of the loss is also typical for the KIBKV method. Next to the contribution to the loss, there are two other financial interfaces between the participants and the joint venture. First the *input value* (in Dutch: inbrengwaaarde) which is the value of all resources, such as the real estate that will be demolished, that a participant contributed to the joint venture. The participant receives a financial compensation for the resources they brought into the joint venture. Second the *take out value* (in Dutch: uitneemwaarde) which is the value of the resources, such as the developed real estate, that a participants receives from the joint venture. The participants is obliged to pay a financial compensation to the joint venture for the received resources. The joint venture approach differs from the traditional approach in which the land exploitation and the real estate exploitation are dealt with separately in the area development [VROM, 2003, p. 4-8];
- The distribution rule consists of two layers. First layer is the division of the loss based on their core responsibilities. This means that the unprofitable part of social real estate is directly assigned to the SHA. The SHA needs to contribute a amount of money equal to the total unprofitable part of the social houses. With this amount the loss of the joint venture is subsequently decreased. The municipality is, for example, responsible for the unprofitable part of the built social parking spaces. The second layer of the distribution rule is the division of the remainder of the loss based on interest. The proportion of interest is based on the share of costs in the building and land exploitation. The proportion of interest of the municipality is determined by the land exploitation costs, the proportion of interest of the SHA is determined by the costs of the building exploitation. This can again best be explained by an example: when the land exploitation costs € 1.000.000 and the building exploitation costs € 9.000.000, the proportion of interest of the municipality is 10% $\left(=\frac{1.000.000}{1.000.000+9.000.000}\right)$ and 90% $\left(=\frac{9.000.000}{1.000.000+9.000.000}\right)$ of the SHA.
- The concept of congruence: this means that all inputted sources are valuated on the same principle as they are taken out of the exploitation. Again an example to clarify this: social houses can be brought in on market value – which is typical much higher than the book value [Vos, 2005, p. 25] – on the condition that the new social houses are also taken out of the exploitation on market value.

## *4.2 Theoretical Principles for Improvement of the KIBKV Method*

This research aims to evaluate the rigidity in relation to the effectiveness of the KIBKV method. The KIBKV method, on its turn, is developed to improve the process of establishing financial arrangements. Both initiatives are based on certain assumptions about what can improve the process. These assumptions are discussed in this chapter. First the assumption of the KIBKV that transparency will smoothen the process is discussed and then the assumption that more flexibility of the KIBKV will further enhance the effect of the KIBKV.

### 4.2.1 Transparency

The KIBKV method is based on the belief that a transparent process, providing insight in the calculations and division of income, cost and risk, would smoothen the process. The method forces participants to define all principles and basic assumptions among the participants and gives preferred directions. Also it provides a roadmap for all calculations, to create awareness among the participants about how contributions are calculated. One of the fundamental principle of the method is that it approaches the regeneration as an integral area development. What seems to be obvious, is quite a new approach in the area development in the Netherlands. The Dutch way of area development traditionally has a strict separation between the land exploitation, that was the responsibility of the municipality and the real estate exploitation, for which real estate developers are responsible. The KIBKV method sees both exploitation as one joint operation; the are is regenerated and therefore the land should be cleared and prepared for real estate and the real estate should be built and exploited. Therefore the KIBKV method identifies all costs and income associated with the development and combines it in a profit and loss account of one joint venture. Subsequently it prescribes how the deficit - or sometimes the profit – should be divided among the participants. By this the whole financial structure of the are development is made more transparent. The importance of transparency is also described in literature. Stafford states that to arrive at cooperation, participants: "Aside from being forthright about goals and expectations, organizations must be open about what resources they seek in a partner as well as what resources they can contribute to achieve these objectives" [Stafford, 1994, p. 70]. This is what happens with the KIBKV method, by defining how responsibilities are allocated this transparency is created with the KIBKV method. This is also underlined by Child (2005, p.150) who argues that for a successful negotiation process, one should gather all information about the potential partner. Information about their interests, position, strength, capabilities, major issues for negotiation, objectives should be derived. Transparency in the process would make this easier and thus it would enhance the chance of reaching a successful cooperation. Also Cross (1965, p.70) defines a positive relation between the information available during the negotiation process and the joint payoff.

### 4.2.2 Flexibility

Although the KIBKV method seems to be reasonable and structured, the experiences in practice are not always that positive [de Ruiter, 2009], [van Honstede, 2009], [Wieggers, 2009], [Linssen, 2005], [Linssen, 2009]. In the case of Presikhaaf, the KIBKV method is used. Metrum calculated for the SHA how many the parties should contribute to the regeneration project. It made the whole regeneration more transparent, all costs were integrally known. Hence the method had its desired effect on the transparency, but the municipality did not agreed on the terms from the KIBKV method. What went wrong? The municipality did not agree on their full responsibility for the unprofitable part of the built social houses in the project. Although the process was transparent, one of the participants did not agree on the terms. To make the calculations so transparent, the developers have chosen for a number of rigid choices. On these rigid choices, disagreement can exist which in the end result in failure of the establishment of financial arrangements. Regeneration projects are, just like all construction projects, one of a kind project. The method seems to mould the negotiation to much in one direction, which

hampers successful negotiations. The article of Linssen (2005, p. 5) mentions that the KIBKV method provides a transparent process on the main line, but on detail seems to be too rigid. It also states that a further tightening of the rules will only enhance resistance against the method. In the details more flexibility would enhance the willingness of participants to reach arrangements. This is in line with the network theory that describes that in a complex network steering is based on some sort of voluntariness [de Bruijn & ten Heuvelhof, 1995, p.22]. Parties will only do something for you if they are willing to do that, steering is not possible (anymore) by "old fashioned" enforcing. The creation of willingness is an important mechanism which the KIBKV method should focus on. This happens in the form of making the process transparent, but should also be done by preventing that the method becomes to rigid which threatens the participants' flexibility. The already quoted article of Stafford (1994, p. 70) corresponds to this. It states that parties should seek to what resources they can contribute and what resources they seek in the potential participants. KIBKV makes this transparent, but if the method is so rigid that these choices are fixed it will not be effective. So the combination of transparency and flexibility seems to be essential, but both concepts seems to undermine each other. A totally transparent method cannot be fully flexible, and vice versa. Therefore this research focuses on the combination of the flexibility and rigidity of the KIBKV method. When more flexibility in the KIBKV method results in a more successful negotiation process, there seems to be a balance between transparency and flexibility. The causal relation between the combination of transparency and flexibility and the successfulness of the negotiation process is therefore examined in the experiment.

### *4.3 Identification of Rigid Assumptions in KIBKV method*

The KIBKV method is a preferred method, as already stated. This means that parties are free to use it or not, so there are also free to adapt the "rigid" assumptions and principles. In practice this does not seems to happen often. Therefore it is researched if a consequent negotiation about these assumptions and principles would enhance the flexibility, or better the perceived flexibility, leading to a more successful establishment of financial arrangements. Hence it is important for the research to identify all "rigid" assumptions and principles made in the KIBKV method. These are traced by looking to choices that the methodology makes that are not necessarily the best choices in all cases. Hence, not all choices that are made, are questionable. For example undermining the "joint venture" structure of the calculation would totally disregard the ground rules of the methodology. This also counts for the distribution rule. However, besides the fundamentals of the method every choice made in the methodology is identified as a variable. Three groups of variables can be distinguished.

The first group of variables are the valuation bases. Although the congruence principle, a fundamental characteristic of the KIBKV method, will stay in place, the preferred valuation base that is prescribed can create unnecessary rigidity. The method prescribes that the valuation base depends on the type of real estate [VROM, 2003, p. 30]. Real estate of the SHA will be valuated on expected future cash flows (in Dutch: bedrijfswaarde), just like the social functions. Real estate of developers and private persons are valuated based on market value. Infrastructure and public space is valuated on zero value. These prescriptions make the method more rigid, while this can also result from the negotiations without affecting the methodology as a whole. The valuation base is therefore a variable and can thus be subject of negotiation.

Second group of variables are all costs. The methodology sees the regeneration as a joint venture. Hence all costs are put in one profit and loss account. This gives security and transparency, but the division of costs is not always as clear as it seems. There are some costs that are in the grey area. As mentioned in the article of Linssen (2005, p. 5), for example the environmental costs are seen as a cost for the joint venture. Although the damage to the environment happened during the operating period of the houses. According to the principle of "the polluter pays" this is quite unfair and can cause

resistance at some parties. It again makes the negotiation unnecessarily more rigid. So the allocation of costs can be seen as a variable, without affecting the principle of the joint venture. In the table, all costs are showed in a taxonomy of the different exploitations [VROM, 2003, p. 28].

**Table 1: Classification of costs to exploitation (translation)**

| Cost of temporary Exploitation: | Cost of land exploitation | Cost of building exploitation |
|---|---|---|
| **Cost for relocation;**<br>• Compensation for relocation<br>• Compensation for ZAV*<br>• Temporary Accomodation<br>• Remaining Compensations<br>**Demolition costs of buildings**<br>**Temporary operating costs:**<br>• Maintenance<br>• Fixed costs<br>• Administration<br>• Rent loss<br>**Temporary operating income:**<br>• Temporary rent income<br><br>* ZAV = a law in the Netherlands: Self Installed Facilities | **Additional acquisition:**<br>• land<br>• buildings<br>**Preperatory activities:**<br>• Disposal of roads and public space<br>• environmental cleansing<br>• cables ad pipes<br>**(Re)development of public space:**<br>• preparing land for building<br>• preparing land for living<br>• Infrastructure<br>**Plan costs:**<br>• Plan Damage **<br>• Plandevelopment costs<br>• Preperation and supervision<br><br>** Plan damage = a Dutch term for the harm that stakeholders have by devaluation of property or loss of income as a result of new spatial planning | **Renovation costs:**<br>• Big Maintenance<br>• Replacements<br>• Unification<br>**Building costs:**<br>• Foundation<br>• Structural work<br>• Installations<br>• Finishing work<br>• Furnishing<br>**Additional costs:**<br>• Plan development costs<br>• Design and consulting costs<br>• Dues and assurance<br>• Rent loss during construction<br>• Costs of transfer |

Discussion can be held about this classification. When a cost is considered to be not part of the regeneration, it can be removed from the profit and loss account of the joint venture. As a result the calculation will allocate this cost directly to a party, instead of sharing it among all participants of the joint venture.

The last but not the least group of variables are the percentage used in the distribution rule. The method of the distribution is considered to be fundamental to the method, so that is not considered to be flexible. The percentage which the distribution rule work with deserve in contrast to this more flexibility. The contribution of core responsibility can be different in each project. Participants of a joint venture can feel that the built social parking space, for example, are a shared responsibility. This flexibility should be given in the method. This will make the methodology more tailor made.

# 5 SIMULATION PROTOCOL: EXPERIMENT DESIGN

The latter chapter gives direction to the research; the flexibility (independent variable) in relation to the transparency (dependent variable) of the financial arrangements. The causal relation between the independent and dependent variable is researched by two negotiation simulations. This chapter describes how the necessary data is gathered in the simulation. To enhance the validity of the research, prior to the simulation, the expected mechanisms were described prior to the simulation. These mechanisms are given in the last two sections of this chapter.

*<< Why think? Why not try the experiment? >>*
John Hunter

## *5.1 Experiment Design: Units, Treatment, Observation, Settings and Validity*

The experiment consists of two simulations of the negotiation process between a municipality and one social housing association. In the negotiation process both parties will try to reach a financial arrangement about a fictive regeneration project. The experiment will be held twice of which one will receive the treatment and one not. This means that the first group will try to reach arrangements using the adjusted KIBKV method and the other group using the original KIBKV method. The researcher will only observe the negotiations. The experiment itself will take place in one afternoon. This is the maximum time the experiment can take, since many people are involved. In this section the methodological details of the experiment are described. First the acronym UTOS [Shadish et al. 2002, p. 19] is used to described the experiment in detail, then the measures to enhance validity are specifically mentioned.

### 5.1.1 Units in the experiment

The experiment needs two negotiation processes which are a accurate reflection of the real situation. This situation is created by a "role playing game" in which it is tried to approach reality. To reach this the participants of the simulation are carefully selected. The participants should have extensive knowledge about and preferably a background in their specific role. Besides the specific role, also the matching of the participants with each other is an important aspects of the selection [Verschuren & Doorewaard, 2005, p. 162]. The participants are matched with each other based on the expected negotiation skills and experiences. The matching strived for two pairs of participants that were expected to be fairly equal to each other. The participants are:

Persons in rigid KIBKV simulation

- Wybe Theijse represented WOCO. Wybe Theijse is the chairman of Metrum and has lot of experience in negotiation processes. He also had number of SHAs as clients in his consulting assignments.
- Ralph van Erp represented In den Lande. Ralph, a senior consultant at Metrum, worked for 11 years at two different municipalities in the land exploitation departments.

Persons in flexible KIBKV simulation

- Maikel de Laet represented WOCO. Maikel is leader of *team real estate* and senior consultant at Metrum. In his consulting assignments he worked for social housing associations. Besides that he is a graduated MSRE, so he has a lot of knowledge about the way real estate developers think in these negotiation processes.
- Stan Engels represented In den Lande. Stan is a senior consultant at Metrum, with a lot of consulting experiences at municipalities in regeneration projects

### 5.1.2 Treatment in the experiment

Two simulations were done; one to test the adjusted KIBKV method and one as a control simulation using the original KIBKV method. The adjusted KIBKV method (flexible-KIBKV) is seen as the treatment. This treatment means that the participants of the KIBK+ negotiation received much more freedom in the process of establishing arrangements. This freedom is made concrete in three groups of variables, as described in the latter chapter:

1. valuation bases;
2. allocation of costs;
3. percentages used by the distribution rule.

### 5.1.3 Observations in the experiment

During the simulations, the independent and dependent variable were observed. To trace back the causal relation it is important to measure both variables.
The independent variable is the combination between transparency and flexibility. The KIBKV method strives for clear and unambiguous division of income, cost and risk, by keeping the process transparent. Transparency is a very subjective concept. Hence the participants should be asked for their opinion about the transparency of the made arrangements. Do the parties have the feeling that the arrangements are clear and fair? The flexibility is determined in advance of the simulation, but also the perceived and experienced flexibility is important factor to measure. This will therefore also be asked during and after the simulation.

The dependent variable in the researched causal relation is the outcome of the process of establishing financial arrangements. Operational measures are designed to determine the effect on the dependent variable. First operational measure of the outcome is if the arrangements are established in the first place. When they are not established, they cannot be called successful. The gap between both positions can be a measure for how far parties are a way from reaching agreement. If the arrangements are reached more detailed measures are necessary to determine the successfulness. Determining the outcome can be very subjective, so it is important to know from which viewpoint this is done. Since the research aims to evaluate the KIBKV method, the KIBKV viewpoint is chosen. In the KIBKV it is stated that the method strives for speeding up the process. So the duration will be shorter if the method succeeds. In an experiment this is not easy to simulated, since the experiment will be compressed to a process of just one afternoon, for budgetary and organizational reasons. An alternative for the duration is the number of times that complications arise, which is thus the second operational measure. This is based on the reasoning that the duration is not determined by the difficulty of the negotiation itself but by the setbacks of the process. When the whole process is run through without problems, but when one of the participants does not agree with the final figure that appears at the end of the calculation, the process will take long. So the feedback loops were aspects on which was agreement need to be redefined, are time consuming and thus the main cause for the problems. This means that measuring these feedback loops are an accurate way of measuring the duration of the process. So to conclude, two measures for the process outcome are selected:

- The size of the financial gap between the participants to reach agreement.
- The number of times that aspects, on which agreement was already reached, are renegotiated.

Different forms were used to gather the necessary data during and after the negotiations. Besides, the whole negotiation was sound recorded. An extensive report of the simulation was handed to the participants afterwards. The participants could reflect on it.

### 5.1.4 Settings of the experiment

The negotiation process was done in one afternoon. The negotiation could ultimately take 2,5 hours, regardless of arrangements that are not reached. When arrangements were reached on an earlier stage, the simulation was also stopped. The participants were

situated in front of each other. Both parties had the possibility of using the calculation model on their laptops with their beginning values. The sub results of the negotiation were put in a blank calculation model by the researcher, displayed on the beamer. The calculation model was specifically developed in Excel according to the KIBKV method and its treatment (see 9.2Appendix B: and 9.2Appendix C:).

The negotiations dealt with a fictive regeneration project. The project consists of the regeneration of social houses, parking spaces, the development of one social function and the improvement of public space. The land on which the social houses stand is possessed by the SHA, the public space in the hands of the municipality. Before the experiment the participants received information about the plans on which they already have a fictive agreement. The programs is therefore rigid and not part of the negotiations. The participants were ordered to come to an arrangement about the financial contributions of both parties. Both parties received separately information about their resources and their interest to which they were bounded.

#### 5.1.5 Construct Validity of Research:

Construct validity is about selecting the right operational measures for the concepts being studied and preventing subjectivity from playing a role. To enhance construct validity a couple of measures are taken. Both external experts as the participants of the simulations were confronted with the findings of the experiment, by this the findings were verified. Moreover the procedure was carefully described and followed in both experiments. This is to prevent that the experiments are influenced by the researcher. At last, in advance of the simulations it is described what mechanisms are expected to occur during the simulation. When the mechanisms found in the simulation match with the predicted mechanisms strong causal inference can be made.

#### 5.1.6 Internal Validity of Research:

Validity of inferences about whether observed covariation between A and B reflects a causal relationship from A to B as those variables were manipulated or measured" [Shadish e.a., 2002, p. 38]. Experiments have typically high internal validity. To trace back causal relations, the experiments were recorded carefully. The experiment should consisted also of a pre-test, in which the combination of participants was examined between the two simulations. Special focus was on the readiness for making consensus of both parties, the easiness of reaching an agreement and the fairness of the reached agreement.
The strength of an experiment is the strong internal validity. To make sure this internal validity is achieved, the experiment design tries to stick as much to the five principles of experiments as possible, namely: (1) minimum of two groups: an experimental group and a control group, (2) Randomisation of groups, (3) the researcher determines which group receives the treatment, (4) minimization of external influences and (5) the use of a pre-test [Verschuren & Doorewaard, 2005, p. 161], [Shadish et al, 2002, p14-16].
To further enhance internal validity, alternative explanations are identified and ruled out of the experiment. This is described in the next section.

#### 5.1.7 External Validity of Research:

External validity determines to what extent the findings can be generalized over other projects. Hence the more attention for the external validity the more the findings are applicable in other projects. Experiments typically suffer from a risk of low external validity. Therefore extra attention is given to the external validity. As mentioned earlier, the findings in the experiments are verified by experts from practice. Besides that, the case design were based on a real life project to keep the case as close as possible to reality. Finally the participants of the experiment played the same role as they do in practice. By this they can empathize themselves better in their role.

### 5.1.8 Reliability of Research:

Final aspect that is taken into account when designing the experiment is the reliability of the analysis. Reliability means to what extent the research can be repeated by another researcher and delivering the same results. Therefore a sound report of the acquired data should be made. To enhance the reliability of the literature study references will be used clear and consequent.

## *5.2 Procedure of Negotiation Procedure*

First step of the simulation was the kick-off meeting, meant to introduce all participants in the KIBKV method, in general terms. Besides that, the participants were introduced to the fictive case; Utopia, a description can be found in 9.2Appendix A:. At last the calculation model was introduced, which can be found in 9.2Appendix B: & 9.2Appendix C:. The participants of the rigid KIBKV were not informed and thus influenced by the treatment. All information was handed in a information document. Part of it was general information, part of it was specific information. This specific information consisted of a target contribution and a maximum contribution. The target contribution was the result of the calculation model with the input that was favourable for the specific party. The input consisted of starting values for all variables that were provided in the rigid-KIBKV and flexible-KIBKV models. The maximum contribution was determined by a bandwidth around the value that was calculated by the model with a reasonable input. This concept is put in a line of settlement as can be seen in the figure. Exact figures are given in the table.

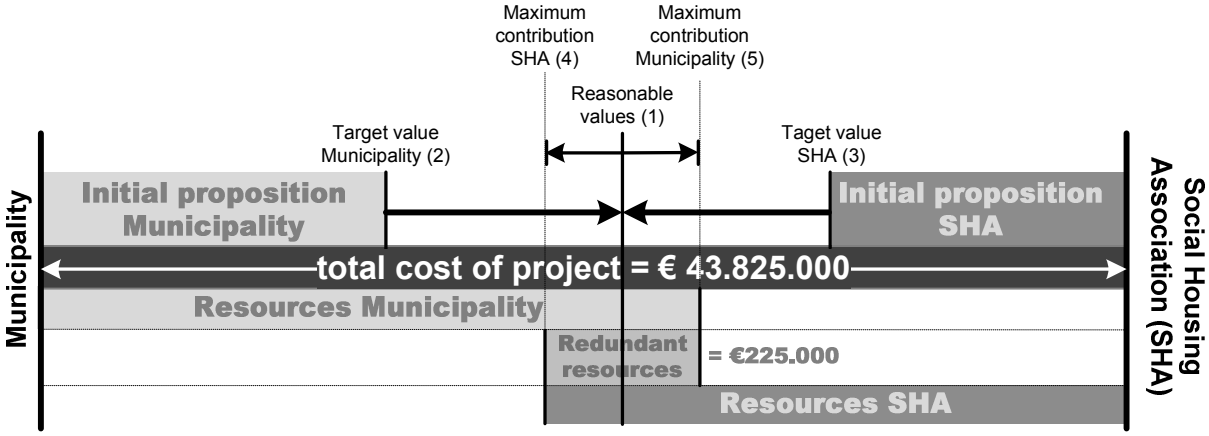


**Figure 6: Line of Settlement for the fictive case "Utopia"**

The total cost of the project, the maximum contributions of both parties and the redundant resources where the same for both simulations. Only the target values differed a bit between both simulations. This is because the flexible-KIBKV simulation had a lot more variables, which automatically resulted in a larger gap between both starting points. This difference is compensated in the KIBKV method by stretching the gap between the single starting values. Hence a minor difference is still there between the target values.

**Table 2: Starting values for simulation "Utopia"**

| | rigid-KIBKV | | flexible-KIBKV | |
|---|---|---|---|---|
| | **Municipality** | **SHA** | **Municipality** | **SHA** |
| Target value (2 & 3) | € 4.256.891 | € 34.919.066 | € 4.181.307 | € 34.924.158 |
| Reasonable values (1) | € 6.299.029 | € 37.528.471 | € 6.299.029 | € 37.528.471 |
| Maximum contribution (4 & 5) | € 6.400.000 | € 37.650.000 | € 6.400.000 | € 37.650.000 |
| Total cost of project | € 43.827.500 | € 43.827.500 | € 43.827.500 | € 43.827.500 |
| Minimum contribution partner | € 37.427.500 | € 6.177.500 | € 37.427.500 | € 6.177.500 |
| Redundant resources | € 222.500 | | | |

The participants were asked to study there starting point with the help of a personalized calculation model. The participants were also provided with some "ammunition" for the negotiation in the form of arguments. These arguments where unilaterally provided, and served as a help for the participants to account for their starting values. The participants

were not strictly bound to these arguments, they could also strengthen their position with own arguments. The arguments provided can be found in 9.2Appendix A:.

### *5.3 Expected Mechanisms in Negotiation Simulations*

To enhance validity, prior to the simulations expected mechanisms are drawn. At the same time these predicted mechanisms directed the design of operational measures for the data collection. What was expected was that the flexible-KIBKV simulation could easier reach a financial arrangement. This has a couple of reasons. First both parties will feel that they can better express their interest in the figures. The example of the environmental pollution is again useful here. In the flexible simulation the parties could easily state that does should not be part of the costs of the joint venture. In the rigid-KIBKVsimulation, they needed to find other solution to prevent that they have to pay for certain costs. Construction needed will make it more vague, and maybe less transparent. As a result the discussion was also to a larger extent based on rational arguments. Second reason is that, due to the larger number of variables, parties will be less inclined to retain a certain opinion. Concession will be made easier. As a result, the discussion is based more on interest than on opinions, a mechanism stimulating for establishing arrangements according to Susskind et al (1999) and Evers (2006). This will also improve the attitude of both participants which will in the end lead to more openness about their intentions and budgets.

Besides that it is expected that, due to the discussion on arguments, the division of unprofitable parts of the project is perceived to be more balanced and fair.

### *5.4 Bug List Prior to the Simulation*

To increase the chance that useful and reliable results are collected from the experiment, all potential bugs of the simulation are identified. Subsequently the chance that the bugs occur are minimized by all sort of measures. The bug list also helps to structure the researchers thoughts about the simulation. This bug lists includes the most plausible alternative explanations. These rival explanation also threaten the causal inference that can be made based on the simulation. The following bugs were identified prior to the simulation:

- Seriousness of the participants
  The participants should take the negotiation simulation serious. If they do not do that, because they are busy or for what other reason, it will influence the simulation. First because the simulation should be prepared intensively, "knowledge is power", and second because when the negotiation is not taken serious the negotiator will be too easy with making concessions. Measures to prevent this bug from occurring:
    - Four days prior to the simulation a kick-of meeting is held. During this meeting the participants are introduced to all information they should be aware of before the simulation starts;
    - The participants are also stimulated to prepare sufficient for the simulation, by means of "knowledge is power in negotiation";
    - Otherwise, the attitude of the researcher to the participants was also serious, which is probably the most efficient measure. By providing well prepared material; a personalized hand-out, a well prepared presentation, and visualizations of the fictive project, this is effectuated.
- Different balance between the negotiators
  An alternative explanation comes from the participants of the experiment. The participants have a wide range of different attributes and traits that can influence the way they will negotiate. For example, in one simulation two very similar negotiators are having a hard but balanced negotiation, while in the other simulation one party is blown a way by the persuasiveness, experience and status of the other party. This will result in two totally, different and biased simulations,

that cannot be compared and thus used for the research. It is hard to prevent this, since random assignment is not possible, especially not because the experiment can be done only two times. Therefore other measures are taken to prevent this bug from occurring:

  - First the participants are carefully selected based on their experience and personality;
  - Secondly, the first part of the simulation functions as a pre-test. In the pre-test the differences between both groups in traits and attributes can be identified. When the data derived from the experiments is analyzed, the differences in the pre-test will be taken into account.

- Different interpretation of the case
  Another alternative explanation is that the information available in the projects is differently interpreted. Although the provided information can be exactly the same, the participants can perceive it differently, or make mistakes in their calculation which results in different information on which they base their decision. To make sure this will not happen, the following measures are taken:
  - Both participants were able to ask questions "off the record" to the researcher during absence of the other participant;
  - The researcher operated the calculation model by insert the negotiation results.
- The researcher has a steering role in the experiment.
  The researcher needs to attend the simulations to observe. By answering questions or by giving recommendation to one or both parties, the researcher can influence the simulations. To prevent this:
  - The researcher is only allowed to support the negotiation with facts.
  - The participants are responsible for the negotiation process and planning.
- The match with reality
  Another alternative explanation is that the case project does not match with reality. For example, the fictive case can be easier or more difficult than the real life projects. In this case, also the negotiation process can be different from the reality, while the purpose of the simulation is to create two situation with approach the reality as good as possible. To prevent this mismatch:
  - The case will be based on a project from practice. To make sure that no important details are missed, a project is chosen in which consultants of Metrum have worked. These consultants can make sure, from their experience in the real project, that no important aspects are missed.
- Wrong interpretations of the calculation model
  Last bug that needs to be mentioned, is the interpretation problem of the calculation model. The calculation model is specifically designed for the simulation. Hence it is the first time that the participants see the calculation model. In some cases the participants even do not have experience with the KIBKV method at all. In this case there is a chance of misinterpretation of the model. A participant can bargain on to raise a certain variable, while it would be for its when interest when the variable is lower. It is difficult to prevent this bug from occurring, only measure that is taken is:
  - Active stimulation of the participants to "play" with the calculation model and ask if anything is unclear about the model.

# 6 SIMULATION RESULTS: DATA COLLECTION

After the thorough description of the simulation in chapter 5, it is now time to come to the results of the simulation. In two afternoons, two groups participated in the simulation, just like described in the simulation protocol. This resulted in some remarkable insights which are described in this chapter. First the rigid-KIBKV simulation is described. This is the test group. Then the flexible-KIBKV simulation is described. This is the group which received the treatment, compared to the rigid-KIBKV method a lot of freedom was assigned to this group.

*<< Visible goodwill is the strongest negotiation strategy. Don't let somebody else determine your behaviour.>>*
Dr. S. U. Sunrei

*<< Necessity never made a good bargain.>>*
Benjamin Franklin
US author, diplomat, inventor, physicist, politician, & printer (1706 - 1790)

## *6.1 Rigid-KIBKV Simulation*

First simulation that is discussed is the "control simulation". Hence, in this simulation the participants negotiated strictly according to the original KIBKV method.

### 6.1.1 Pre-test in Rigid-KIBKV Simulation

To make both simulations mutually comparable, a pre-test was part of the negotiation simulation. The input values where the same at both simulations and the input values were the first subject of negotiation so just minor influence from the negotiation methodology followed can be expected. By comparing the outcome of these sub negotiations, the differences in the balance of negotiation power are identified. In the rigid-KIBKV simulation the participants did not reach an agreement at all during the first round of negotiations, even no provisional result. Moreover, both parties started the negotiation by mentioning even higher values then the provided starting values. Hence after the first negotiation round the parties where further away from each others standpoint than they were at the beginning.

### 6.1.2 Report of the Rigid-KIBKV Simulation

Both parties were very well empathized in their role, as a result they began discussing some "personal" matters (prescribed by the acronym PIP; personal, contents, personal). Then they quickly proceeded to the negotiations. Both parties immediately showed no intention of giving in. Both parties started with higher values then the original provided starting values; the SHA asked € 27,000 for each of the '50-houses, instead of the prescribed € 25,000 and € 42,000 for each of the '70-houses instead of € 40,000. The Municipality on its turn asked € 400,000 instead of € 300,000 for the school (with the remark: "The school is valued at € 500,000 but we already watered down our demands"). Arguments are crossing the table to justify the mentioned input values. One of the perceived problems of the rigid-KIBKV; that all transformation costs are paid by the joint venture, is solved by the municipality. The municipality claims that the environmental remediation costs should be discounted in the input values of the '50-houses. In the first round the participants do not reach agreement on one single issue of the input values. This process continues in the negotiations about the take out values. During the first round it appears that the municipality focused its strategy heavily on the take out value of the parking spaces. This is again a solution of the municipality to cope

with the rigidity of the KIBKV method. The unprofitable part of the built parking spaces is allocated at the municipality. So when the municipality is able to put the take out value of the parking spaces on € 25.000 each (starting value was €22.500 for the municipality and €7.500 for the SHA) there will be no unprofitable part, since construction costs are € 25.000. When it became clear that the participants would absolutely not reach an agreement about the take out value, the negotiation maintain a status quo. Both participants exaggerated each others opinions and both are not intended to be the first to make concessions.

Prior to the simulation, the municipality thought that a agreement was unlikely. A fair distribution will be for him when he reaches his target. After an hour of negotiations he thinks that an agreement is even less likely than he already thought. On the contrary, prior to the simulations, The SHA did thought that an agreement could be achieved. The SHA was keen on getting results; a deal is more important than its own contribution, but that does not mean that he wants to encounter its target as close as possible. This attitude is reflected in a proposal that the SHA makes after one hour of negotiations. To come closer to each other and thus speed up negotiations, the SHA proposes to discover the bandwidth of the negotiation by equally dividing the differences in stand points. The municipality rejected the proposal because, according to him, it is unrealistic. The municipality has a strong tendency to adapt the program of the plans to reduce the deficit. Perhaps this is a perfect representation of what often happens in practice: The project at the initial level of ambition is achievable, but since both parties focus much on personal gain, it is decided to downsize the level of ambition. A prisoner's dilemma in its purest form. After some arguments back and forth and after some, in the eyes of the counterparty, unrealistic proposals the negotiators decide to break 10 minutes. The SHA would like to withdraw to examine the impact and to reconsider the proposals made using the calculation model.

After resumption, there is only half an hour left for further negotiation. The municipality opened the negotiations with a proposal: all input values on 0, the ’70-houses at € 7,500 each. The SHA does not agree with this proposal and states that this means a 3.5 million deficit, in reality this proposal was € 3 million above its target and € 400,000 above the maximum contribution. The SHA puts down a statement: to reach an arrangements only two options are available; the take out value of the parking spaces is decreased or the input values of their real estate is increased. End of the negotiation round cycle, no result.

Then both parties come with a proposal:
Proposal of the SHA: the contribution of the SHA: € 36.2 million, the contribution of the municipality: € 7.6 million (which is € 1.2 million above their maximum contribution)
Proposal of the municipality: the contribution of the SHA: € 38.6 million (which is € 1 million above their maximum contribution), the contribution of the municipality: € 5.2 million
Both proposals are rejected by the other negotiator. The SHA then comes with a new tactic: he shows the alternative to no agreement, a no-go. This seemed to work, both parties come with new proposals which takes them closer to each other. Under time pressure the proposals went back and forth. In the last two minutes 2 proposals are made by the municipality, which both parties could agree on. Both proposals are rejected but the SHA, which may be related to the confusing nature of the negotiations in the final minutes.

### 6.1.3 Flexibility in Rigid-KIBKV Simulation

No real problems are mentioned with the flexibility. The participants coped with the expected flexibility problems with some creative solutions. Environmental remediation cost are discounted in the input value and the municipality tries to avoid the unprofitable part of the built parking spaces by increasing the take out value. It shows that there is a demand for more flexibility. The transparency of the arrangements does not benefit from

these constructions. Moreover the SHA thinks it is distracting that some variables have no impact on the end result. An example of such a variable is the take out value of the social houses:

**Table 3: Calculation example for effect of take out value of social houses**

| | Example 1 | Example 2 |
|---|---|---|
| **Area exploitation** | | |
| 1. Construction costs | € 150.000 | € 150.000 |
| 2. Take out value | € 80.000 | € 140.000 |
| 3. Result (2-1) | € -70.000 | € -10.000 |
| 4. Unprofitable part (1-2) | € 70.000 | € 10.000 |
| **Contribution SHA** | | |
| 5. Contribution for core responsibility (4) | € 70.000 | € 10.000 |
| 6. Take out value (2) | € 80.000 | € 140.000 |
| **Total (5+6)** | **€ 150.000** | **€ 150.000** |

There are no problems encountered with the amount of variables.

#### 6.1.4 Transparency in Rigid-KIBKV Simulation

Both participants of the rigid-KIBKV simulation did not recognized the transparency that the model offered. This is unexpected since they follow the original KIBKV method, which is meant to offer transparency. This surprising result can partly be explained by the unfamiliarity of the participants with the method and the calculation model. The participants particularly indicate that the transparency of the model is moderate. During the negotiations, the negotiators sometimes did not know the impact of a variable on the end result. This is mainly caused by the percentages of the distribution rule. One of the participants states "The methodology provides an overview, but not insight in the cost division of a area development". On the other hand; "by providing the overview, the tendency to negotiate over small details is probable decreased". The participants expect that the division of contribution is a fair distribution, since the developers probably developed the model with care. Overall the participants give a 6 minus (on a 1 to 10 scale) for the transparency of the model and the method.

### *6.2 Flexible-KIBKV Simulation*

Second simulation that is discussed is the simulation with the treatment. Hence, in this simulation the participants negotiated about more variables and with more freedom than provided in the original KIBKV method.

#### 6.2.1 Pre-test in Flexible-KIBKV Simulations

To make both simulations mutually comparable, a pre-test was part of the negotiation simulation. The input values where the same at both simulations and the input values were the first subject of negotiation so just minor influence from the negotiation methodology followed can be expected. By comparing the outcome of these sub negotiations, the differences in the balance of negotiation power are identified. In the flexible-KIBKV simulation the negotiators reached a provisional agreement in the first round about the input values. Concessions were made easily so the parties could discover the "bandwidth". Only the SHA started the negotiation with mentioning somewhat higher input values than originally prescribed. However, commonly spoken, they negotiate with one's card upon the table.

### 6.2.2 Report of the Flexible-KIBKV Simulations

Unlike the rigid-KIBKV simulation, where both parties started negotiation with much higher expectations than their target, both negotiators in the flexible-KIBKV simulation aimed from the beginning at their target. Both parties expressed immediate readiness to make concessions in order to come closer together. They decide to adopt a strategy in order to "explore the bandwidth" of the negotiations. They did this by quickly running trough all the variables and make a provisional agreement. Although the SHA started with higher take out values than was prescribed, an honest and open process. After reaching agreements about all input values, they came to the distribution of transformation costs. In the flexible-KIBKV simulation the negotiators could decide together how they wanted to divide the costs, but did not received extra arguments or opinions compared to the rigid-KIBKV simulation. The negotiators fully used the offered flexibility; they discussed the division of all costs. This resulted in a very "creative" allocation of costs that did not belonged to the transformation costs. Besides that costs were allocated from the joint venture to a participant, they also came up with division ratios like 15% - 85% (as shown in Table 3). During the discussions about the division of the transformation costs, the negotiators increasingly became aware of the black box that they created of the calculation. After adjusting all variables, it was not clear anymore what the effect was of a certain variable. The parties decided to proceed. The discussion about the take out values initially took more time than the about input values. The SHA makes a concession for the valuation of the social houses; they will put in a contract that they will not sell the house in the first 40 years. The SHA also indicates that if can sell the free market houses at a maximum for € 220,000. Combined with the bas market nowadays, he is prepared to pay only € 200.000 per house. The municipality on its turn, wants a higher value for the multifunctional school. After reaching agreements about all take out values, the arrive at the third group of extra variables; the percentages of the distribution rule. They agree on a contribution of 30% of the municipality in the unprofitable part of the social houses. The SHA contributes 30% in the unprofitable part of the parking spaces. The rest of the percentages stays the same as the original values in the KIBKV method. The end of the first negotiation round is reached. According to the calculation model the municipality needs to contribute: € 13,709,554, the SHA: € 30,117,946. This implies a deficit of the municipality of more than 7.3 million. The SHA agrees on the arrangements, but the municipality obviously not.

**Table 4: Overview of the division of transformation costs**

| | *Gem* | *Woco* |
|---|---|---|
| **Grondexploitatie** | | |
| Openbreken infra en openbare ruimte | 100% | |
| Mileusanering 250 sociale woningen | | 100% |
| Bouw- woonrijp maken | 85% | 15% |
| Planschade | | 100% |
| Planontwikkelingskosten | | |
| Voorbereiding en toezicht | 85% | 15% |
| **Tijdelijke exploitatie** | | |
| Verhuiskosten vergoeding | | 100% |
| Tijdelijke huisvesting | | 100% |
| Sloopkosten woningen | | 100% |
| Sloopkosten P-garage | 100% | |
| Sloopkosten school | 100% | |
| Netto beheer kosten | | 100% |
| **Bouwexploitatie** | | |
| Bouwkosten 200 nieuwe sociale woningen | 15% | 85% |
| Bouwkosten 50 vrijmarktwoningen | 15% | 85% |
| Renovatiekosten 50 sociale woningen | 15% | 85% |
| Extra bouwkosten bebouwd parkeren | 85% | 15% |
| Bouwkosten brede school | 85% | 15% |

In the second negotiation round, they decided to throw the entire negotiated distribution of costs of the first round overboard. No further adjustment were made. The result was a contribution of the municipality of € 8,968,879, the contribution of the SHA: € 34,858,621. This implies a deficit of the municipality of more than 2.5 million. Hence again the SHA agrees and the municipality obviously not.

In the third cycle the negotiators decide to speak "frankly". The Municipality indicates that their contribution should be decreased with at least 3 million, otherwise the project

is not feasible for them, this means a contribution of 6 million (maximum contribution is 6.4 million). The SHA indicates that it is not possible and proposes to divide the difference; they will contribute € 1.5 million more. Again the municipality cannot agree on this offer. The SHA gets its teeth in a contribution of € 36 million and by this maintains a status quo. The municipality reacts on this by providing total transparency, but the SHA erroneously suspects that the municipality has more financial space available. After some changes in the variables, they come to a proposal of € 35,630,140 for the SHA and 8,197,360 for the municipality. The municipality does not agree.

In negotiation round 4 they started to look for an agreement while maintaining in their eyes fair values for the variables. It represents a kind of haggling and the parties are increasingly become more honest about their financial space. Ultimately, the parties together reach an agreement.

### 6.2.3 Flexibility in Flexible-KIBKV Simulations

The methodology offered a lot more flexibility and is therefore assessed with an 8.5 (on a 1 to 10 scale). However, this does not say anything about the usefulness of the flexibilities. De flexibility that was provided by giving the freedom to allocate the transformation costs like they want, a strong "black box'-feeling originated. Although the flexibility was sometimes welcome, it causes that the parties discussed about all costs. This does not contribute to a quick process and fair arrangements. When all transaction costs are allocated, the principle of the KIBKV is undermined and it becomes very difficult to see what impact variables have on the end result. At the end of the negotiation simulation it still came down to haggling, but it provided insight and brought the parties closer together. One of the participants states that the division of the unprofitable part of social housing is in his experience always a last balancing item, just like what happened in the simulation. The therefore experience the flexibility of the distribution rule that was provided as very useful.

### 6.2.4 Transparency in Flexible-KIBKV Simulations

The transparency of the methodology is considered to be advantageous, since it maps all costs of the area development. When this is taken into account, it can be expected that the negotiation also lead to a fair division of costs. The transparency of the model is therefore awarded with a 7,5 and an 8 (on a scale of 1-10). The model itself is considered to by less transparent. The transparency of the model is divided in two aspects. The sheet in which transformation costs are allocated is not very transparent. the percentages that they used for the allocation of the cost, evolved to a third layer in the distribution rule. This made it totally unclear what the effect was of changing some variables. The sheet in which the overview is given of the division code is more transparent and is considered to be useful and fair. All in all, the transparency of the model is assed substantially lower at a 6. It should be mentioned that this is an average of the terrible transparency of "cost"-sheet and the good transparency of the "division"-sheet.

# 7 SIMULATIONS RESULTS: DATA ANALYSIS

In chapter 6 the two simulations are reported. In this chapter the analysis of all collected data is provided. First the simulation protocol itself is evaluated using the bug-list from chapter 5. In the second section both simulations are compared en results are analyzed

<< Practical observation commonly consists of collecting a few facts and loading them with guesses.>>
Author Unknown

## *7.1 Evaluation of the Simulation Protocol*

The simulation protocol was developed to make sure that the desired data is derived from the simulation. In this chapter about analysis, first a review of the simulation protocol is given. This is done with the help of the bug-list. In this section it is described if the potential bugs have occurred in the simulation and if the bug occurred, what the effect was on the simulation. In this way the reliability of the simulations can be determined.

- Seriousness of the participants
  All participants took the simulation very serious and were very well prepared. A anecdote from the simulations is perfect way to show this. In the rigid-KIBKV simulation the negotiation did not paid off, which resulted in acquisition from both sides about the willingness to reach an agreement. At the end of the negotiation time, when no agreement was reached, the delegate of the SHA walked away from the negotiation table. An action to persuade the municipality at the last moment to close the deal.
- Different balance between the negotiators
  Although the participants in the rigid-KIBKV simulation were less prepared to make concessions and had higher aims, the pairs of participants were both balanced.
- Different interpretation of the case
  Thanks to the wide experience from all participants with regeneration projects, the case was not misinterpreted.
- The researcher has a steering role in the experiment.
  The researcher/observer tried to minimize its influence on the experiment. There were some cases in which the participants asked the researcher for help or clarification. When the information provided was also available for the other negotiator the answer was given plenary. When it concerned specific information, the answers were given privately. In both simulations the participants autonomously designed the process of negotiations.
- The match with reality
  All participants declared that the negotiation were approximated reality.
- Wrong interpretations of the calculation model
  Some problems occurred with the calculation model. Most of them could be solved before the simulation started, but sometimes the researchers needed to intervene. Most important influence of the observer was when the participants of the rigid-KIBKV simulation kept negotiating about a variable that did not influenced the end result.

Two bugs occurred during the process that were not identified prior to the simulation, and were thus not part of the bug list:

- In the flexible-KIBKV simulation, both participants held their own calculation model up to date during the whole negotiation, in contrast to the rigid-KIBKV simulation. It took them considerable time to keep their calculation model up to date. Although the "neutral" model was held up to date by the observer, the participants had good reason for keeping their own model up to date. By maintaining their own model, they were constantly informed about their negotiation position as a result of the sub deals made. This was unforeseen, but not resulted in a serious problem. Only some delay of the agreement was caused by this phenomenon.
- In the rigid-KIBKV method, the parties wanted to be able to steer in the program. This was disabled, because the project would then be to complex to negotiate about in one afternoon. The participants indicated a couple of times that in reality the status quo in which they were would be break through by changes in the program. This means that the program is downgraded to decrease the deficit. It made the case slightly less realistic according to them, but it also showed a mechanism that occurs in reality. This mechanism results in a lower level of ambition then strictly possible. Both parties are not willing to be the first that makes concessions, because they do not allow small wins for the partner. In reality this results in a compromise which is a solution that is suboptimal for both parties. In the simulation the parties could not downgrade the level of ambition and as a result they reached agreement with an optimal solution.

## *7.2 Comparison of both Simulations*

In general, participants of the flexible-KIBKV simulations are more positive about the method than the participants in the rigid-KIBKV simulation. It should be noted that in flexible-KIBKV an agreement was reached and both parties were more open to negotiation. The "concession readiness" of the participants flexible-KIBKV cannot be fully explained by the greater flexibility, since the participants were also more open during the pre-test. Hence a human factor played a positive role in the flexible-KIBKV simulation, which made them more open for negotiation. This led form the beginning to a constructive negotiation and to an early agreement about the contribution to the area development. Fundamental question that the comparison of both simulation should answer is: how did the treatment contributed or hampered the negotiation?

### 7.2.1 Differences in Transparency between the Simulations

The transparency of the flexible-KIBKV model is at least equally appreciated as the rigid-KIBKV model. Both parties see the additional value of the methodology in providing an overview of all costs involved. This was even more appreciated by the flexible-KIBKV model. The participants of both simulations were all satisfied about the transparency of the calculation model itself. The model in the rigid-KIBKV simulation was a bit more transparent, because the transformation costs could not be changed and therefore were straightforward assigned. This resulted in some discounted costs in the input and take out values, but since it happened just two times it was not a problem. The aspect that threatened the transparency of the rigid-KIBKV model, was that some take out values did not influenced the end result. This was considered to be annoying, since the lost negotiation time on an useless subject. The minus of the flexible-KIBKV transparency was the difficult structure of transformation cost allocation. This created a black box, that was why they decided to skip that allocation in the second negotiation cycle. Last aspect that should be noticed is that the distribution rule was considered to be transparent in both simulations.

### 7.2.2 Differences in Flexibility between the Simulations

After the analysis of the original KIBKV method, proposals for improvements of the KIBKV method were made. The flexibility enhancing adjustments were developed in such a way that they did not affect the main characteristics of the method which cause the transparency. The adjustments were tested in two simulations with varying outcome.

Special focus in the simulation was the effect of the enhanced flexibility on the transparency of the method, which should be maintained.
The additional flexibility that was brought in by the treatment is divided in three groups:

Flexibility in the valuation bases
Both simulations had some flexibility in the determination of the input and take out values. As long as they answered to the congruence principle, the valuation base of the input and take values was the same per real estate type. The difference was that the flexible-KIBKV could determine their own valuation base, while the rigid-KIBKV group needed to stick with the prescribed valuation bases. Because both parties already had some flexibility in the valuation, besides the valuation base, and because the participants in the flexible-KIBKV methodology did not have an other valuation base as starting point, no real differences were observed in the simulations. Although the valuation base is determined, there is still a lot of negotiation space. Many different variables influence the value of real estate and on all these variables arguments can be based. Moreover, the valuation bases prescribed by the methodology seems to be the most logic choice, so negotiators cannot come up with good arguments for the use of other valuation bases.

Flexibility in the allocation of transformation costs
Second flexibility that was added to the KIBKV method was the allocation of the transformation costs. The method originally sees all costs and income associated with the area development as part of the combined responsibility. This means that also the costs for which the responsibility lies totally at one party, are equally divided over both parties. As a result of the added flexibility, all costs are subject of negotiation to determine which party should be responsible for it. Although it seems to result in a fair allocation of costs, in the simulation it resulted in a complex structure of cost distribution. This causes a black box in the calculation model. Negotiators will not be able to understand the impact of certain variables. In the simulation the difficult structure was therefore skipped.
As a result the flexibility offered by the allocation of costs is not appreciated a lot in the simulation. It can be useful in some cases, but in the rigid-KIBKV simulation the participants were able to cope with it without changing the allocation of costs. They discounted these costs in the input and take out value. Such a solution can basically be used for all costs that should not be part of the joint venture. So this flexibility can be omitted from the flexible-KIBKV model. Reluctance with discounting all kind of element in the input and take out value is wise, since it does not have a beneficial effect on the transparency.

Flexibility in the distribution rule
Last group of flexibilities is part of the distribution rule. The method uses a double layered distribution rule. First the deficit of the area development is decreased by contribution of participants according to their core responsibility. Concrete this means that the SHAs have to contribute the unprofitable part of the social houses and the municipality the unprofitable part of the social functions. The second layer divides the remainder of the deficit under all participants based on their interest in the area development. The KIBKV method prescribes a full allocation according to the core responsibilities and interest, but to enhance flexibility this is opened for negotiations. The implication of this measure is best showed by two examples. The municipality can be made responsible for part of the unprofitable part of the social houses, since it is also their ambition to have a certain share of social houses in the regeneration neighbourhood and the SHA can be made responsible for part of the built social parking spaces, since they also profit from the quality improvement. The flexibility provided in the distribution rule is very much appreciated in the flexible-KIBKV simulation. This flexibility is missed in the rigid-KIBKV simulation. It turns out that it does not affect the transparency. According to one of the participants of the flexible-KIBKV simulation, the division of the unprofitable part of the social houses is often a sort of last balancing item. Hence, the flexibility in the distribution rule seems to specifically answer the call for a tailor made procedure.

# 8 CONCLUSION

Last step in research is to arrive at conclusions. These conclusion are based on the preparatory study described in chapter 3 to 5, and research evidence that is collected in the simulations described in the latter two chapters. The first section will answer the research question: *What can be concluded about the rigidity of the used principles and basic assumptions in relation to the effectiveness of the KIBKV methodology?*
In the second section recommendations are given about how the conclusion can be of use in daily practice, subsequently starting points for further research are provided. Last section of this master thesis is devoted to the discussion of the research results. This section elaborates on the weak and strong elements of the research.

*<< The outcome of any serious research can only be to make two questions grow where only one grew before. >>*
Thorstein Veblen
US economist & social philosopher (1857 - 1929)

## *8.1 Conclusion*

The research arrived at conclusions that are presented as follows. First an elaboration on the original KIBKV methodology is made. Then the adjustments on the original KIBKV that are derived from the analysis are discussed. Special focus is laid on the usefulness of the adjustments.

### 8.1.1 Original KIBKV methodology

In regeneration projects, municipality and social housing association often are mutual dependent, to come to an successful cooperation, financial arrangements are needed. The process that leads to the financial arrangements is often not very successful. The KIBKV methodology is introduced by the most important authoritative organisations in regeneration projects to solve this problem. The method is based on the belief that a transparent process, providing insight in the calculations and division of income, cost and risk, will smoothen the process. To reach this, the method provides an unambiguous calculation method. By calculating and reasoning consistently on equal principles, participants will quicker reach agreement. Consequently, the process sacrifices a certain level of flexibility. In practice it turned out that the method was less effective then predicted. Explanation of this phenomenon lies in the complex context of the process of establishing financial arrangements. Regeneration projects are one of a kind projects, but if the method is followed strictly it does not result in tailor made financial arrangements.

The method provides basically a transparent financial structure which is helpful to achieve unambiguous and fair financial arrangements. Fundamental principle that lies at the basis of the method is that it approaches the regeneration as an integral area development. What seems to be obvious, is quite a new approach in the area development in the Netherlands. The Dutch way of area development traditionally has a strict separation between the land exploitation, that is the responsibility of the municipality and the real estate exploitation, for which real estate developers are responsible. The KIBKV method sees both exploitations as one joint operation; the area is regenerated and therefore the land should be cleared and prepared for real estate and the real estate should be built and exploited. Therefore the KIBKV method identifies all

costs and income associated with the development and combines it in a profit and loss account of one joint venture. Subsequently it prescribes how the deficit - or sometimes the profit – should be divided among the participants.

At first sight a logic and robust way of thinking, but the method makes a lot of choices of which it is questionable if these are necessary to prescribe. The choices make the method more rigid. The variables which leave some space for negotiation are the input and take out values and the contribution to the public space by the municipality. This means that for the largest part, the method defines the height of the participants contribution, as if there is only one right division of contributions. A right division of contribution depends on a lot of different factors that are not included in the method. As a result the method can be experienced as very restrictive for participants.

### 8.1.2 Adjustment on the KIBKV methodology

After the analysis of the original KIBKV method, proposals for improvements of the KIBKV method were made. The flexibility enhancing adjustments were developed in such a way that they did not affect the main characteristics of the method which cause the transparency. The adjustments were tested in two simulations with varying outcome. Three groups of measures to enhance flexibility were designed of which one proved to be of added value. Special focus in the simulation was the effect of the enhanced flexibility on the transparency of the method, which should be maintained.

Valuation bases
The flexibility provided by negotiating the valuation base does not fulfil the need for more flexibility of the method. When the valuation bases are prescribed, there is still enough space for negotiation, because the values are based on subjective elements. Besides that the prescribed valuation bases are the most proper bases.

Flexibility in the allocation of transformation costs
It appeared that the flexibility is of added value in just a few cases, but it mainly decreases the transparency. Moreover, the simulation showed that negotiators can come up with solutions for the cases in which flexibility is welcome, without adjusting the allocation of the transformation costs. Last issue that can be drawn against this group of adjustments, is that it also passes by on the joint venture principle. Hence, the enhanced flexibility in the allocation of transformation costs is not a useful adjustment to the KIBKV method. To maintain the transparency of the straightforward "joint venture" approach the transformation costs should be divided equally. In the cases in which flexibility is needed, participants can decide to discount the specific costs in the input or take out value.

Flexibility in the distribution rule
The third group of flexibility that was tested, was the negotiation over the percentage part of the distribution rule. The distribution rule describes how the deficit in regeneration projects should be divided among the partners. This flexibility is useful because it matches the desire of participants in regeneration projects. Furthermore, it does not decrease the transparency of the method, when a variable is changed it is instantly clear what the impact is of that decision. This is therefore a useful adjustment of the KIBKV method; it makes the method more flexible while the transparency is maintained.

### 8.1.3 Redesign of the KIBKV methodology

It will be clear that the KIBKV method enhances the transparency of the financial structure of a regeneration project. The associated rigidity of the method is less advantageous since it threatens the effectiveness of the method. The research indicates that when the method offers both transparency and flexibility, fair financial arrangements are more likely to be established. Hence the original KIBKV method can be made more effective when it is made more flexible without losing its transparency. This can be done by enhancing the flexibility in the distribution rule. All percentage that are associated to

core responsibilities and interests, should be open for negotiation. In this way a method is available that can deliver transparent and tailor made solutions for each regeneration project.

## *8.2 Recommendations*

Besides that conclusions are drawn, some recommendation can be made. This section describes the recommendation that are made, first the implications of the conclusions on practice and second, recommendation for further research are made.

### 8.2.1 Practical implications

The research is focused on a problem from daily practice and thus has substantial practical relevance. Hence the question will arise; "what are the implications of the conclusion on the daily practice of Metrum?". Recommendations done in this sub section are therefore specifically meant for Metrum. First statement that can be made is that the KIBKV methodology offers transparency which can be of great value in difficult negotiation processes of regeneration projects. Since focus on regeneration of the inner-city is growing, applicability will only grow in the future. The disappointing results in the past with the method, can most probably be assigned to the rigidity of the method. When the KIBKV is applied again, special focus should be laid on making the method more specific for the project. By enhancing the flexibility in the distribution rule, this problem can be solved or decreased. The other rigid choices made in the method can stay in place. When parties do not agree on the equal distribution of the costs, this can be discounted in the input or take out value. Last minor note that should be made is that when there is resistance to the "joint venture" -approach of the model, it should be clarified that it is just an fictive method that makes the whole area development more transparent.

### 8.2.2 Further research

In the research the causal relation between the enhanced flexibility and the effectiveness is determined qualitative. It is assumed that if the method offers both flexibility and transparency, the method will be an effective measure to establish fair and unambiguous financial arrangements. Besides that the research shows how this flexibility can be enhanced without affecting the transparency, indication are found that there is a positive relation between the flexibility and the effectiveness. This conclusion is based on limitative qualitative evidence, it would therefore be good to obtain more quantitative evidence for this relation. This can only be achieved by performing an experiment with a bigger *n*. Hence it can be recommended to perform a randomized experimental research. For this the simulation designed for this research can be used. When the simulations are held with a randomized population, one half with the treatment and one half as a control group, quantitative evidence can be obtained about the effectiveness of the adjusted KIBKV methodology. In these simulation the treatment can consists of only the third group of flexibility enhancements.

Openness of participants in the regeneration project is another interesting aspect for further research. This research focused on the transparency in all costs and income that are associated with the integral regeneration. This offers more transparency, but this does not yet include openness in some important details. The input and take out values are part of the negotiation, but parties can still be closed on this aspect. On the one hand this it is one's right and also understandable, especially for parties with a commercial objective. On the other hand, it does not fit with the transparency principle of the KIBKV method. The closedness can negatively influence the trust in each other. It would be interesting to research what effect it has when parties offer complete openness of their financial situation to each other.

Another interesting point for further research that is derived from the simulation is the role that "trust" plays in the negotiation process. In the simulation, all the preparatory

work has been done by the researcher. So, the participants were not familiar with each other, while in reality the participants first jointly develop the plans. This creates trust among the participants and they are also more aware of each others needs. It would be interesting to discover the relation between the preparatory phase and the negotiation phase itself. This is also connected with the optimization step during the negotiations. When the plans are jointly developed, negotiators know were each others interest are and what details of the plan can be adjusted. In the held simulations, there was no space for optimizations of the plan.

Last item for further research is to enhance the applicability range of the method. This research focused on the establishment of financial arrangements between the municipality and the SHA in regeneration projects. It would be wise to expand the research to the real estate developers and health organizations, which are increasingly involved in the regeneration projects. Besides that the method can probably be adjusted to make it applicable in other types of area developments, like city expansion projects. In these projects financial arrangements are also necessary to make, with the transparency that the KIBKV method offers fair financial arrangement are more likely to be established.

## *8.3 Discussion*

Last section of the report of this research is the discussion of the strengths and weaknesses of this research. First a critically review of the research design is made, subsequently the generalizability of the research will be discussed.

### 8.3.1 Research design

First critic that can be made about the research design is the limited problem analysis. When more empirical data was collected about the use of KIBKV in practice, the problem analysis would be more complete. This would have resulted in more directed adjustments of the KIBKV method. In this research, three groups of flexibilities were designed. Only the third group of flexibilities stayed in place after the research. When a more intensive problem analysis was performed, maybe less time was spend on selecting the right flexibility enhancing measures and more time could have been spend on collecting evidence about the relation between the flexibility and the method's effectiveness.

Second critic on the research design elaborated further on the first item. With the research design, only qualitative evidence is collected about the relation between the flexibility and the effectiveness of the method. It would be good to collect more quantitative evidence about this relation. This could have been done with the same simulation but then with a larger number of simulations. The simulation itself is designed well, as well as the fictive project that was subject of the negotiations.

Third critic is that it was a risky choice to perform the simulations without a pilot simulation. No problems occurred during the research, but there was a risk that the simulation failed.

The developed bug-list identified most obvious threats to validity in the simulations. This enabled the researcher to take measures that reduce these threats. This method proved to be successful since most potential bugs did not occur. Hence, in general the simulation can be considered to be reliable. To complete the discussion of the research design, the problem from the bug-list that did occur is given here. Sometimes the participants had some problems with the calculation model. This led to some interpretation problems of the figures, which led two times to a situation which will probably not occur in reality. (1) in the flexible-KIBKV simulation, the municipality bargained for a higher take out value of the multifunctional school which resulted in a higher contribution. (2) in the rigid-KIBKV simulation the participants negotiated a while about a variable that did not influence the end result at all.

It was a deliberate choice to leave out the possibility of optimization during the negotiation process. This would have made the negotiation process to complex. The simulations were a success, so it was a good choice, but there was some need for optimization possibilities in one of the simulations. The influence of optimization possibilities was not subject of the research but should be addressed in further research.

### 8.3.2 Generalizability

Last Point of discussion is the generalizability of the research results. It is expected that the improved KIBKV method can be effectively used in all regeneration projects between SHAs and municipalities. Especially because the model is made more flexible, the method offers a more tailor made calculation model for regeneration projects. At this moment the findings cannot be expanded to other actors in the regeneration projects like real estate developers or health organizations. As already mentioned this would be of added value. This also counts for other types of area development projects. It is imaginable that the improved KIBKV method can be applied on city expansion projects or regeneration of industrial area, but the findings of the research cannot be expanded to this field. Further research is therefore necessary.

# 9 REFERENCES

In this chapter all references are given, first the literature and second all interviews.

*<< Copy from one, it's plagiarism; copy from two, it's research. >>*
Wilson Mizner
US screenwriter (1876 - 1933)

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# Appendices

## Appendix A: Case Description

### *A.1 History*

In den Lande is a village of about 40.000 inhabitants. In the surrounding neighbourhoods, about three kilometres from the city centre, the neighbourhood Utopia is situated. The neighbourhood is developed in the post-war period (in the fifties) to reduce the houses shortage in the Netherlands. In the seventies, some public space is sacrificed for a small expansion of 2 apartment blocks with fifty units each.

Today, vandalism is a huge problem in Utopia. Also the primary decay indicators – unemployment, illiteracy and school drop-outs – show the decline of liveability in the neighbourhood. It is becoming so bad, that even the Social Housing Corporation WOCO finds it harder and harder to keep the occupancy level of their estate on the desired level.

As a result the municipality of In den Lande and the social housing corporation WOCO initiated the regeneration of Utopia. This intention has taken shape in the intention agreement. Based on this they developed a first version of the *Urbanistic plans*. All costs are mapped and lately the social plan has been signed with the current inhabitants. Next step is the establishment of a cooperation agreement, which will be the start sign of the executions of the plans. Before they can establish this agreement, they have to reach agreement about the contribution in the unprofitable parts of the plans.

No land transactions are needed in this plan.

### *A.2 Current Situation*

Utopia consists of:

- 250 social houses of the fifties, grouped in apartment blocks of 50 units;
- 100 social houses of the seventies, grouped in apartment blocks of 50 units;
- a primary school for 150 children;
- a small car park of 50 spaces, exploited by the municipality and build in the seventies;
- 100 houses in the private segment, owned by individuals. These houses are in a good state and will not be part of the regeneration;
- 4 hectares of public space: parks, pavements and roads.

### *A.3 Desired Situation*

Except for half of the houses of the seventies and the private houses, everything will be demolished.
The parties reached agreement about the following program:

- 200 new social houses, half of them are apartments;
- Underneath the new apartment block of social houses a multi-storey car park of 100 spaces will be constructed;
- The 50 social houses of the seventies that are not demolished are thoroughly renovated;
- 50 new houses for the free market will be developed;
- a so-called "Multi-functional school" will be developed and exploited by the municipality;
- the 4 hectares of public space will be upgraded.


**Figure 7: Map of current situation of Utopia**

**Figure 8: Location of "Utopia" in "In de Lande"**

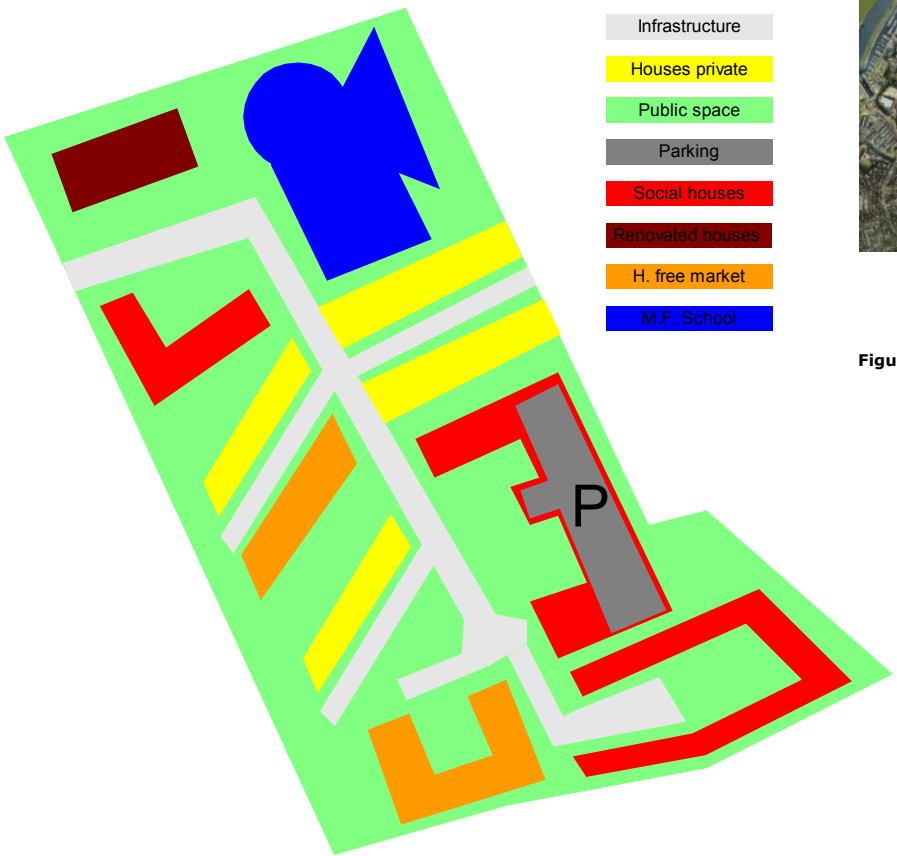


**Figure 9: Map of current situation of Utopia**

Arguments to support the starting values

Valuation method of all real estate

The valuation method can be based on a operation based-valuation, but also on a market based-valuation. These different valuation methods can, especially in the case of social houses, have a huge impact on the division of contributions. In the flexible KIBKV, the congruence principle also counts; old and new real estate should be valuated based on the same method.

Exact valuation of the contributed real estate

Besides the valuation method, there is also some space for interpretation space within a certain valuation method.

- 250 social houses of the fifties;
  Municipality: the decay of the houses is so bad that the houses are reasonably not rentable without performing intensive maintenance. The municipality asks itself if the houses can generate a positive cash flow at all.
  SHA: We can still rent the houses for some years to students, or as temporary houses, without investing a lot of money on maintenance.
- 100 social houses of the seventies;
  Municipality: This houses can also not be rented without maintenance.
  SHA: We can still rent the houses for 10 years, as a matter affect the houses still have a book value calculated on 10 year of operations.
- A primary school;
  Municipality: The school is still in operation so the municipality receives subsidy for the school from the national government.
  SHA: the SHA cannot imagine at all that it is allowed to give lessons in such an old building.
- 50 spaces-parking lot.

Exact valuation of the new real estate (take out values)

Besides the valuation method, there is also some space for interpretation space within a certain valuation method.

- 200 social houses;
  Municipality: in the future these houses can be sold to the market for a lot of money, partly because of the high quality of the public space. That is why the municipality thinks its fair that they also profit from the value appreciation.
  SHA: it is not the objective of the SHA to sell the houses, because they are well aware of their social responsibility. Houses are only sold when they need to generate cash for the development of more social houses. In the end, the municipality is the party who wants such a large share of social houses being rebuild.
- 100 spaces-parking lot;
  SHA: built social houses coupled to social houses is a noble ambition, but the SHA's tenants will not and cannot pay the full price for it. Since it is an ambition of th municipality, they should bear the consequences.
- 50 renovated social houses;
- 50 houses for the free market;
- 'broad school'.

Costs that have to be taken out of the exploitation

All kinds of costs are putted in the exploitation by the KIBKV, but some costs are probably better allocated to a certain party. All costs can be taken out of the exploitation, but for some of these costs some reasons are provided.

- The environmental costs of the 250 social houses;
  Municipality: these costs are made during the exploitation of the social houses. The principle "the polluter pays" should count in this case
- Contribution of municipality in the public space;

Municipality: Total budget that the municipality saved on maintenance and replacement of the public space is € 500.000. This budget is not taken into account in the calculation model so it can be used in the negotiation.
SHA: The municipality should do an additional contribution for the public space. There is a backlog on maintenance, which is the core task of the municipality. The total budget that the municipality has saved on maintenance and replacement is € 500.000

- Temporary operating costs of the social houses.
  Municipality: These costs belong to the operations of the social housing associations. They also could have done better maintenance in previous years.

Special agreements about division of contribution

The division of the unprofitable part is divided based on the core task and interests. This can be changed and again, for some of these aspects there are some reasons provided for changes in these divisions.

- The unprofitable part of the new car park;
  Municipality: the SHA is also profiting from the presence of the car park, since all spaces are used for the social houses.
  Division of unprofitable part, after the division to core task.
  SHA: The municipality wants to build such a large share of social houses and also profits from this large share. This means that the want the municipality to share in the costs.
  Besides that, the municipality shares in the profit of the houses for the free market, but the division of the unprofitable part by interest is based on no interest of the municipality in the free houses.

# Appendix B: Calculation Model Rigid-KIBKV

| | Kostprijs | Aantal | Totale kosten | Specifieke afspi | In den Lande | basis | WOCO |
|---|---|---|---|---|---|---|---|
| **Inbrengwaarden** | | | | | | | |
| **Vastgoed** | | **totaal** | **€ 2.962.500** | | | | |
| 250 sociale woningen jaren '50 | € 5.000 | 250 | € 1.250.000 | € - | € 5.000 | € 25.000 | |
| 100 sociale woningen jaren '70 | € 15.000 | 100 | € 1.500.000 | € 10.000 | € 15.000 | € 40.000 | |
| Basisschool | € 200.000 | 1 | € 200.000 | € 300.000 | € 200.000 | € - | |
| Parkeergarage 50 plaatsen | € 250 | 50 | € 12.500 | € 1.000 | € 250 | € - | |
| **Openbaar gebied** | | **totaal** | **€ -** | | | | |
| Openbaar gebied | € - | 0 | € - | € - | € - | € - | |
| **Transformatiekosten** | | | | | | | |
| **Grondexploitatie** | | **totaal** | **€ 2.575.000** | | | | |
| *Voorbereidende werkzaamheden* | | *totaal* | *€ 2.100.000* | | | | |
| Openbreken infra en openbare ruimte | € 100.000 | 1 | € 100.000 | € 100.000 | € 100.000 | € 100.000 | |
| Mileusanering 250 sociale woningen | € 2.000 | 250 | € 500.000 | € 2.000 | € 2.000 | € 2.000 | |
| Bouw- woonrijp maken | € 1.500.000 | 1 | € 1.500.000 | € 1.500.000 | € 1.500.000 | € 1.500.000 | |
| *Plankosten* | | *totaal* | *€ 475.000* | | | | |
| Planschade | € 100.000 | 1 | € 100.000 | € 100.000 | € 100.000 | € 100.000 | |
| Planontwikkelingskosten | € 225.000 | 1 | € 225.000 | € 225.000 | € 225.000 | € 225.000 | |
| Voorbereiding en toezicht | € 150.000 | 1 | € 150.000 | € 150.000 | € 150.000 | € 150.000 | |
| **Tijdelijke exploitatie** | | **totaal** | **€ 2.252.500** | | | | |
| *Uitplaatsingskosten* | | *totaal* | *€ 1.575.000* | | | | |
| Verhuiskosten vergoeding | € 5.500 | 250 | € 1.375.000 | € 5.500 | € 5.500 | € 5.500 | |
| Tijdelijke huisvesting | € 2.000 | 100 | € 200.000 | € 2.000 | € 2.000 | € 2.000 | |
| *Sloopkosten* | | *totaal* | *€ 415.000* | | | | |
| Sloopkosten woningen | € 800 | 300 | € 240.000 | € 800 | € 800 | € 800 | |
| Sloopkosten P-garage | € 2.000 | 50 | € 100.000 | € 2.000 | € 2.000 | € 2.000 | |
| sloopkosten school | € 75.000 | 1 | € 75.000 | € 75.000 | € 75.000 | € 75.000 | |
| *Tijdelijk beheer kosten* | | *totaal* | *€ 262.500* | | | | |
| Netto beheer kosten | € 750 | 350 | € 262.500 | € 750 | € 750 | € 750 | |
| **Bouwexploitatie** | | **totaal** | **€ 39.000.000** | | | | |
| Bouwkosten 200 nieuwe sociale woning | € 100.000 | 200 | € 20.000.000 | € 100.000 | € 100.000 | € 100.000 | |
| Bouwkosten 50 vrijmarktwoningen | € 200.000 | 50 | € 10.000.000 | € 200.000 | € 200.000 | € 200.000 | |
| Renovatiekosten 50 sociale woningen | € 50.000 | 50 | € 2.500.000 | € 50.000 | € 50.000 | € 50.000 | |
| Extra bouwkosten bebouwd parkeren | € 25.000 | 100 | € 2.500.000 | € 25.000 | € 25.000 | € 25.000 | |
| Bouwkosten brede school | € 4.000.000 | 1 | € 4.000.000 | € 4.000.000 | € 4.000.000 | € 4.000.000 | |
| **Uitneemwaarden** | | | | | | | |
| **Vastgoed** | | **totaal** | **€ 38.550.000** | | | | |
| 200 nieuwe sociale woningen | € 90.000 | 200 | € 18.000.000 | € 110.000 | € 90.000 | € 60.000 | |
| 50 grondig gerenoveerde woningen | € 36.000 | 50 | € 1.800.000 | € 50.000 | € 36.000 | € 30.000 | |
| 50 woningen voor verkoop | € 275.000 | 50 | € 13.750.000 | € 300.000 | € 275.000 | € 225.000 | |
| Brede school | € 3.500.000 | 1 | € 3.500.000 | € 3.250.000 | € 3.500.000 | € 4.000.000 | |
| Bebouwd parkeren | € 15.000 | 100 | € 1.500.000 | € 22.500 | € 15.000 | € 7.500 | |
| **Openbaar gebied** | | **totaal** | **€ -** | | € - | | |
| Openbaar Gebied | € - | 0 | € - | € - | € - | € - | |

| *Kosten* | | | |
|---|---|---|---|
| **Tijdelijke exploitaite** | **totaal** | **€** | **2.252.500** |
| Uitplaatsingskosten | | € | 1.575.000 |
| Sloopkosten | | € | 415.000 |
| Tijdelijk beheer | | € | 262.500 |
| | | | |
| **Grondexploitatie** | **totaal** | **€** | **2.575.000** |
| Voorbereidende werkzaamheden | | € | 2.100.000 |
| Plankosten | | € | 475.000 |
| | | | |
| **Bouwexploitatie** | **totaal** | **€** | **39.000.000** |
| Bouwkosten sociaal | | € | 20.000.000 |
| Bouwkosten markt | | € | 10.000.000 |
| Renovatiekosten sociaal | | € | 2.500.000 |
| Brede school | | € | 4.000.000 |
| Bebouwd parkeren | | € | 2.500.000 |
| | | | |
| **Totale kosten** | | **€** | **43.827.500** |

| *Opbrengsten* | | |
|---|---|---|
| 200 nieuwe sociale woningen | € | 18.000.000 |
| 50 gerenoveerde woningen | € | 1.800.000 |
| 50 vrije markt woningen | € | 13.750.000 |
| Opbrengst Brede school | € | 3.500.000 |
| Opbrengst gebouwd parkeren | € | 1.500.000 |
| Openbare ruimte | € | - |
| | | |
| **Totale opbrengsten** | **€** | **38.550.000** |

| | | |
|---|---|---|
| **Saldo kosten/opbrengsten** | **€** | **5.277.500-** |

| *Inbrengwaarden* | | |
|---|---|---|
| 250 sociale woningen jaren '50 | € | 1.250.000 |
| 100 sociale woningen jaren '70 | € | 1.500.000 |
| Basisschool | € | 200.000 |
| Parkeergarage | € | 12.500 |
| Openbaar ruimte | € | - |
| | | |
| **Totale inbrengwaarden** | **€** | **2.962.500** |

| | | |
|---|---|---|
| **Transformatieresultaat** | **€** | **8.240.000-** |

| | | |
|---|---|---|
| **Gedbiedsresultaat voor verdeling** | **€** | **8.240.000-** |

| **Bijdrage naar kerntaak** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ***Saldo*** | | ***In den lande*** | | | ***WOCO*** | | |
| Onrendabele top nieuw sociaal | € | 2.000.000 | 0% | € | - | 100% | € | 2.000.000 |
| Onrendabele top gerenoveerd sociaal | € | 700.000 | 0% | € | - | 100% | € | 700.000 |
| Onrendabele top brede school | € | 500.000 | 100% | € | 500.000 | 0% | € | - |
| Onrendabele top parkeergarage | € | 1.000.000 | 100% | € | 1.000.000 | 0% | € | - |
| Bijdrage openbaar ruimte | € | 1.000.000 | 100% | € | 1.000.000 | 0% | € | - |
| Specifieke afspraken | € | - | 0% | € | - | 0% | € | - |
| **Saldo van bijdragen naar belang** | **€** | **5.200.000** | **48%** | **€** | **2.500.000** | **52%** | **€** | **2.700.000** |

| | | |
|---|---|---|
| **Gebiedsresultaat na bijdragen naar kerntaak** | **€** | **3.040.000-** |

| **Bijdrage naar belang** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ***Saldo*** | | ***In den lande*** | | | ***WOCO*** | | |
| Aandeel Vastgoed | € | 2.528.471 | 0,00% | € | - | 83,17% | € | 2.528.471 |
| Aandeel Voorziening | € | 311.196 | 10,24% | € | 311.196 | 0,00% | € | - |
| Aandeel Gemeente (GREX) | € | 200.333 | 6,59% | € | 200.333 | 0,00% | € | - |
| **Saldo van bijdragen naar belang** | **€** | **3.040.000** | **16,83%** | **€** | **511.529** | **83,17%** | **€** | **2.528.471** |

| | | |
|---|---|---|
| **Gebiedsresultaat na bijdragen kerntaak en belang** | **€** | **-** |

| **Partijen individueel** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | ***Saldo*** | | ***In den lande*** | | | ***WOCO*** | | |
| **Bijdragen aan transformatieresultaat** | **€** | ***8.240.000*** | **36,55%** | **€** | ***3.011.529*** | **63,45%** | **€** | ***5.228.471*** |
| Bijdrage naar kerntaak | € | 5.200.000 | 48,08% | € | 2.500.000 | 51,92% | € | 2.700.000 |
| Bijdrage naar belang | € | 3.040.000 | 16,83% | € | 511.529 | 83,17% | € | 2.528.471 |
| **Saldo inbreng/uitneemwaarden** | **€** | **35.587.500-** | | **€** | **3.287.500-** | | **€** | **32.300.000-** |
| Inbrengwaarden | € | 2.962.500 | | € | 212.500 | | € | 2.750.000 |
| Uitneemwaarden | € | 38.550.000 | | € | 3.500.000 | | € | 35.050.000 |
| **Resultaat (excl boekwaardes)** | **€** | **43.827.500-** | **14,37%** | **€** | **6.299.029-** | **85,63%** | **€** | **37.528.471-** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Target bijdrage** | | | | **€** | **4.181.307** | | **€** | **34.919.066** |
| **Maximale bijdrage** | | | | **€** | **6.400.000** | | **€** | **37.650.000** |
| **Totale financiele ruimte** | | | | **€** | **2.218.693** | | **€** | **2.730.934** |
| **Afwijking target** | | | **95,4%** | **€** | **2.117.722** | **95,5%** | **€** | **2.609.405** |
| **Resterende speling** | | | **4,6%** | **€** | **100.971** | **4,5%** | **€** | **121.529** |

# Appendix C: Calculation Model Flexible-KIBKV

| | Kostprijs | Aantal | Totale kosten | Specifieke afs In den Lande | basis | WOCO |
|---|---|---|---|---|---|---|
| **Inbrengwaarden** | | | | | | |
| **Vastgoed** | | **totaal** | **€ 2.962.500** | | | |
| 250 sociale woningen jaren '50 | € 5.000 | 250 | € 1.250.000 | € - | € 5.000 | € 12.500 |
| 100 sociale woningen jaren '70 | € 15.000 | 100 | € 1.500.000 | € 10.000 | € 15.000 | € 22.500 |
| Basisschool | € 200.000 | 1 | € 200.000 | € 250.000 | € 200.000 | € 100.000 |
| Parkeergarage 50 plaatsen | € 250 | 50 | € 12.500 | € 500 | € 250 | € - |
| **Openbaar gebied** | | **totaal** | **€ -** | | | |
| Openbaar gebied | € - | 0 | € - | € - | € - | € - |
| **Transformatiekosten** | | | | | | |
| **Grondexploitatie** | | **totaal** | **€ 2.575.000** | **G W** | | |
| *Voorbereidende werkzaamheden* | | *totaal* | *€ 2.100.000* | | | |
| Openbreken infra en openbare ruimte | € 100.000 | 1 | € 100.000 | € 100.000 | € 100.000 | € 100.000 |
| Mileusanering 250 sociale woningen | € 2.000 | 250 | € 500.000 | € 2.000 | € 2.000 | € 2.000 |
| Bouw- woonrijp maken | € 1.500.000 | 1 | € 1.500.000 | € 1.500.000 | € 1.500.000 | € 1.500.000 |
| *Plankosten* | | *totaal* | *€ 475.000* | | | |
| Planschade | € 100.000 | 1 | € 100.000 | € 100.000 | € 100.000 | € 100.000 |
| Planontwikkelingskosten | € 225.000 | 1 | € 225.000 | € 225.000 | € 225.000 | € 225.000 |
| Voorbereiding en toezicht | € 150.000 | 1 | € 150.000 | € 150.000 | € 150.000 | € 150.000 |
| **Tijdelijke exploitatie** | | **totaal** | **€ 2.252.500** | | | |
| *Uitplaatsingskosten* | | *totaal* | *€ 1.575.000* | | | |
| Verhuiskosten vergoeding | € 5.500 | 250 | € 1.375.000 | € 5.500 | € 5.500 | € 5.500 |
| Tijdelijke huisvesting | € 2.000 | 100 | € 200.000 | € 2.000 | € 2.000 | € 2.000 |
| *Sloopkosten* | | *totaal* | *€ 415.000* | | | |
| Sloopkosten woningen | € 800 | 300 | € 240.000 | € 800 | € 800 | € 800 |
| Sloopkosten P-garage | € 2.000 | 50 | € 100.000 | € 2.000 | € 2.000 | € 2.000 |
| sloopkosten school | € 75.000 | 1 | € 75.000 | € 75.000 | € 75.000 | € 75.000 |
| *Tijdelijk beheer kosten* | | *totaal* | *€ 262.500* | | | |
| Netto beheer kosten | € 750 | 350 | € 262.500 | € 750 | € 750 | € 750 |
| **Bouwexploitatie** | | **totaal** | **€ 39.000.000** | | | |
| Bouwkosten 200 nieuwe sociale woning | € 100.000 | 200 | € 20.000.000 | € 100.000 | € 100.000 | € 100.000 |
| Bouwkosten 50 vrijmarktwoningen | € 200.000 | 50 | € 10.000.000 | € 200.000 | € 200.000 | € 200.000 |
| Renovatiekosten 50 sociale woningen | € 50.000 | 50 | € 2.500.000 | € 50.000 | € 50.000 | € 50.000 |
| Extra bouwkosten bebouwd parkeren | € 25.000 | 100 | € 2.500.000 | € 25.000 | € 25.000 | € 25.000 |
| Bouwkosten brede school | € 4.000.000 | 1 | € 4.000.000 | € 4.000.000 | € 4.000.000 | € 4.000.000 |
| **Uitneemwaarden** | | | | | | |
| **Vastgoed** | | **totaal** | **€ 38.550.000** | | | |
| 200 nieuwe sociale woningen | € 90.000 | 200 | € 18.000.000 | € 95.000 | € 90.000 | € 85.000 |
| 50 grondig gerenoveerde woningen | € 36.000 | 50 | € 1.800.000 | € 38.000 | € 36.000 | € 30.000 |
| 50 woningen voor verkoop | € 275.000 | 50 | € 13.750.000 | € 280.000 | € 275.000 | € 250.000 |
| Brede school | € 3.500.000 | 1 | € 3.500.000 | € 3.250.000 | € 3.500.000 | € 3.750.000 |
| Bebouwd parkeren | € 15.000 | 100 | € 1.500.000 | € 17.500 | € 15.000 | € 12.500 |
| **Openbaar gebied** | | **totaal** | **€ -** | | € - | |
| Openbaar Gebied | € - | 0 | € - | € - | € - | € - |

| Kosten | | | |
|---|---|---|---|
| **Tijdelijke exploitaite** | **totaal** | **€** | **2.252.500** |
| Uitplaatsingskosten | | € | 1.575.000 |
| Sloopkosten | | € | 415.000 |
| Tijdelijk beheer | | € | 262.500 |
| | | | |
| **Grondexploitatie** | **totaal** | **€** | **2.575.000** |
| Voorbereidende werkzaamheden | | € | 2.100.000 |
| Plankosten | | € | 475.000 |
| | | | |
| **Bouwexploitatie** | **totaal** | **€** | **39.000.000** |
| Bouwkosten sociaal | | € | 20.000.000 |
| Bouwkosten markt | | € | 10.000.000 |
| Renovatiekosten sociaal | | € | 2.500.000 |
| Brede school | | € | 4.000.000 |
| Bebouwd parkeren | | € | 2.500.000 |
| | | | |
| **Totale kosten** | | **€** | **43.827.500** |

| Opbrengsten | | |
|---|---|---|
| 200 nieuwe sociale woningen | € | 18.000.000 |
| 50 gerenoveerde woningen | € | 1.800.000 |
| 50 vrije markt woningen | € | 13.750.000 |
| Opbrengst Brede school | € | 3.500.000 |
| Opbrengst gebouwd parkeren | € | 1.500.000 |
| Openbare ruimte | € | - |
| | | |
| **Totale opbrengsten** | **€** | **38.550.000** |

| | | |
|---|---|---|
| **Saldo kosten/opbrengsten** | **€** | **5.277.500-** |

| Inbrengwaarden | | |
|---|---|---|
| 250 sociale woningen jaren '50 | € | 1.250.000 |
| 100 sociale woningen jaren '70 | € | 1.500.000 |
| Basisschool | € | 200.000 |
| Parkeergarage | € | 12.500 |
| Openbaar ruimte | € | - |
| | | |
| **Totale inbrengwaarden** | **€** | **2.962.500** |

| | | |
|---|---|---|
| **Transformatieresultaat** | **€** | **8.240.000-** |

| | | |
|---|---|---|
| **Gedbiedsresultaat voor verdeling** | **€** | **8.240.000-** |

| Bijdrage naar kerntaak | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Saldo* | | *In den lande* | | | *WOCO* | | |
| Onrendabele top nieuw sociaal | € | 2.000.000 | 0% | € | - | 100% | € | 2.000.000 |
| Onrendabele top gerenoveerd sociaal | € | 700.000 | 0% | € | - | 100% | € | 700.000 |
| Onrendabele top brede school | € | 500.000 | 100% | € | 500.000 | 0% | € | - |
| Onrendabele top parkeergarage | € | 1.000.000 | 100% | € | 1.000.000 | 0% | € | - |
| Bijdrage openbaar ruimte | € | 1.000.000 | 100% | € | 1.000.000 | 0% | € | - |
| Specifieke afspraken | € | - | | € | - | | € | - |
| **Saldo van bijdragen naar belang** | **€** | **5.200.000** | **48%** | **€** | **2.500.000** | **52%** | **€** | **2.700.000** |

| | | |
|---|---|---|
| **Gebiedsresultaat na bijdragen naar kerntaak** | **€** | **3.040.000-** |

| Bijdrage naar belang | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Saldo* | | *In den lande* | | | *WOCO* | | |
| | | | 0,00% | | | 100,00% | | |
| Aandeel Vastgoed | € | 2.528.471 | 0,00% | € | - | 83,17% | € | 2.528.471 |
| Verdeling Voorziening | | | 100,00% | | | 0,00% | | |
| Aandeel Voorziening | € | 311.196 | 10,24% | € | 311.196 | 0,00% | € | - |
| | | | 100,00% | | | 0,00% | | |
| Aandeel Gemeente (GREX) | € | 200.333 | 6,59% | € | 200.333 | 0,00% | € | - |
| **Saldo van bijdragen naar belang** | **€** | **3.040.000** | **16,83%** | **€** | **511.529** | **83,17%** | **€** | **2.528.471** |

| | | |
|---|---|---|
| **Gebiedsresultaat na bijdragen kerntaak en belang** | **€** | **-** |

| Partijen individueel | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | *Saldo* | | *In den lande* | | | *WOCO* | | |
| **Bijdragen aan transformatieresultaat** | ***€*** | ***8.240.000*** | **36,55%** | ***€*** | ***3.011.529*** | **63,45%** | ***€*** | ***5.228.471*** |
| Bijdrage naar kerntaak | € | 5.200.000 | 48,08% | € | 2.500.000 | 51,92% | € | 2.700.000 |
| Bijdrage naar belang | € | 3.040.000 | 16,83% | € | 511.529 | 83,17% | € | 2.528.471 |
| **Saldo inbreng/uitneemwaarden** | **€** | **35.587.500-** | | **€** | **3.287.500-** | | **€** | **32.300.000-** |
| Inbrengwaarden | € | 2.962.500 | | € | 212.500 | | € | 2.750.000 |
| Uitneemwaarden | € | 38.550.000 | | € | 3.500.000 | | € | 35.050.000 |
| **Resultaat (excl boekwaardes)** | **€** | **43.827.500-** | **14,37%** | **€** | **6.299.029-** | **85,63%** | **€** | **37.528.471-** |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Target bijdrage** | | | | **€** | **4.256.891** | | **€** | **34.924.158** |
| **Maximale bijdrage** | | | | **€** | **6.400.000** | | **€** | **37.650.000** |
| **Totale financiele ruimte** | | | | **€** | **2.143.109** | | **€** | **2.725.842** |
| **Afwijking target** | | | **95,3%** | **€** | **2.042.138** | **95,5%** | **€** | **2.604.313** |
| **Resterende speling** | | | **4,7%** | **€** | **100.971** | **4,5%** | **€** | **121.529** |

## Appendix D: Personal Reflection on Simulation

The two simulations, held on 24 and 25 September 2009 can be considered as great success. In this appendix a personal reflection is given on the simulation and the reason for its success.

The simulations were by far the most critical research step. The intention was to simulate two realistic negotiations between a SHA and a municipality. Most important factor to organize two successful negotiations were the participants. The participants needed to fulfil three criteria:

- Extensive knowledge of the parties they represent;
- Empathy in the case and the viewpoints of the parties they represent;
- They need to take the simulation serious and spend enough time in the preparation.

All four participants matched these criteria, which resulted in two very realistic simulations. At one moment I thought that two participants were really frustrated by each others rigid attitude, but fortunately this was all part of the act. It shows how serious the participants took the simulation. After the experiment, the participants indicated that it very much resembled a real life negotiation process.

Besides the right participants, thorough preparation of the simulation itself is essential and increases the chances of success. As a researcher you are thus not totally at the hands of the participants. You can of course influence the simulation yourself, to a large extent. One of the most obvious measures to make sure that the simulation will succeed is a pilot simulation. I did not choose for a pilot simulation, so the first simulation had to be a success. I took this risk, because a pilot project would have cost a lot of extra time. Besides that, improvements as a result of the pilot project could have no effect on the real simulations. In stead of the pilot case I took some other measures that contributed to the success of the simulations:

- A project design that resembles a real life- project. The project is made even more realistic with the help of visualisation of the neighbourhood and the development plans;
- A calculation model is provided that supports the participants during the negotiation process. The calculation model takes the negotiator by the hand;
- A Kick-off meeting about four days before the actual simulation was held to introduce the participants to the simulation, fictive project and calculation model;
- The negotiators were given the freedom to develop rules for the negotiation process. As a result I did not need to intervene and disturb the negotiators;
- During the simulations I had a small talk with all participants to evaluate their strategy. This was not necessary for the data collection, but it enabled the participants to reconsider their position and strategy;
- During the negotiation I operated the calculation model, projected with a beamer, in which all negotiated values served as input. This enabled the negotiators to fully concentrate on the negotiations and they had a constant overview of the results of their negotiations;
- Although I did not do a pilot simulation, I prepared myself on the simulation by running the simulation over and over again in my mind to explore possible problems that can occur. This resulted in the bug-list, described in the main report.

## Appendix E: Other Research Strategies

As discussed in the latter subsection the experimental research was considered to be the strategy which best fitted the research objective. To further support this argumentation the disadvantages of the other strategies compared to the experimental research are given related to the research objective. The different research strategies are: Survey, Case Study, Historical research and Grounded theory [Verschuren & Doorewaard, 2005, p. 149-151].

Survey Research

Survey research can deal with phenomenon and context, but the ability to deal with the context is very limited [Yin, 2009, p. 18]. This makes the survey unusable since the context plays an important role in this research. Besides that, survey research need incidence to come with broadly based result. For the proposed research, to arrive at explanations an in-depth research is needed, which is within the time limits only possible for just a few cases.

Case Study Research

Case study research can make analytical generalization and is able to make distinction between blurred boundaries of the phenomenon and context, making it applicable for the research. However, problem of the case study is that the researcher cannot work purely with his suggested treatments. The KIBKV method is not implemented very often, so just little units are available. Furthermore, the treatment on the KIBKV method will most definitely not be found in practice. In short, there is more control over the independent variables necessary than the case study research can offer.

Historical Research

A historical research strategy is mostly used when the research focuses on non-contemporary events. The KIBKV method is just a few years old, so it is specifically a contemporary event. Also the desired influence on the independent variable is not possible with the historical research.

Grounded Theory

The grounded theory is a theoretical research in which new theory is developed to explain a phenomenon in practice [Christiaans, 2004, p.239]. For this research the same disadvantages as for the case study research can be given. Moreover, the grounded theory prescribes that the researcher has no or just prior knowledge about the subject being studied. To effectively study the phenomenon it is preferable to do this with already acquired knowledge. Without this knowledge, there is risk that the research is overwhelmed with empirical data without a clue where to look for. Looking to the time limits set for the research this is another disadvantage of the grounded theory.