Workshop 13 - Housing and Urban Processes: Towards Sustainable Communities?

Urban restructuring; the project feasibility assessment model

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Abstract (revised)
Decision making in urban restructuring processes is a complex process that in the Netherlands often occurs intuitively and lacks application of rational weighting methods. Often enough it occurs that both parties, local government and housing association, initiate a restructuring process with not only a lack of knowledge concerning the motives, costs and benefits of the other party, but also with limited knowledge and expertise in appraising the complexity of the restructuring task and the risks involved. In many cases do executives within the social housing sector initiate a restructuring project insufficiency based on strategic motives and without sufficient insight in the project development expertise within their organisations. This lack of expertise in successful implementing restructuring projects increases the urgency to identify the divers' types of risk profiles related to urban restructuring projects and the factors causing the stagnation of the restructuring process. In order to address these problems, the PhD research ‘Project Feasibility Assessment of Urban Restructuring Projects’ has been started to design a model to assess project feasibility (PF) more effectively in the context of urban restructuring in order to support the decision making process. In a previous paper, we presented the theoretical framework, the results of an exploratory case study and the first version of the conceptual Project Feasibility (PF) assessment model. This paper is a continuation of the previous paper and reports the progress of the development process of the conceptual model by presenting the first ex posttest of the PF assessment model.

Introduction
Decision making in urban restructuring projects is a complex process that often occurs intuitively and lacks application of rational weighting methods. Urban restructuring also takes place in a context were much of the content still mainly is dictated by governmental policy and is therefore strongly influenced by political motives at national and local scale. The parties who take the initiative in this process are most of the time the housing associations and the local governments. The motives for housing associations to initiate urban restructuring projects are however, in practice much more divers then the societal motives dictated in governmental housing policy on this matter. A housing association can restructure a residential area for technical, economical, social, or political reasons. It can decide to restructure an area out of precaution or as part of an upgrading strategy on portfolio level. Openly enough it occurs that both parties, local government and housing association, initiate a restructuring process with not only a lack of knowledge concerning the motives, costs and benefits of the other party, but also with limited knowledge and expertise in appraising the complexity of the restructuring task and the risks involved. By illustration, in many cases do executives within the social housing sector initiate a restructuring project, decided by contracts with the local government, insufficiently based on strategic motives and without sufficient insight in the project development expertise of their organisations. To these divers’ types of problems in the decision making process are great risks related, endangering the successful implementation of a restructuring project. The result is stagnation of the process for many years or even termination.

In order to address these problems, the PhD research ‘Project Feasibility Assessment of Urban Restructuring Projects’ has been started to design a model to assess project feasibility (PF) more effectively in the context of urban restructuring in order to support the decision making process. The focus of the research approach is therefore mainly the analysis and description of the decision making process, the various feasibility assessment methods and the factors that determine the feasibility of a sustainable urban restructuring project. In a previous paper we
presented data concerning the content and process of urban restructuring projects, the current applied feasibility assessment techniques in urban restructuring processes in general and more specific in the exploratory case study Fannius Scholtenbuurt in Amsterdam. The paper concluded with an introduction of the concept of project feasibility assessment by presenting the first version of the conceptual Project Feasibility (PF) assessment model. This paper is a continuation of the previous paper by reporting the progress of the development process of the conceptual model with the presentation of the first ex post test of the PF assessment model.

The paper starts with an overview of the bottlenecks in the decision-making process in general and more concretely the bottlenecks in the exploratory case study Fannius Scholtenbuurt. Both underline the need for a comprehensive project feasibility assessment process. The second section provides a description of the conceptual project feasibility assessment model. The third section describes the results of the ex-post test of this model in the case of Hoograven in Utrecht. In the test are the results of the case study out set out against the model, resulting in conclusions in the final section.

**The current state of urban restructuring projects**

Urban restructuring in the Netherlands has as characteristic that it is a gathering of sub processes involving many parties such as local governments, residents, housing associations, private investors, etc. Each one of these parties has a different interest with regard to the neighbourhood and the restructuring process. Of these parties are those who initiate the restructuring process, in most cases the housing associations and the local governments, mutually dependent with regard to the form and content of the restructuring process. Other characteristic of this process is that the last decade, due to as well decentralisation of housing policy as privatisation of the housing associations, a supervising party is absent (Boon et. al., 2004). Therefore, good cooperation between the local government and the housing association is crucial and determines for a major part the success of a restructuring project. However, the last decade are many urban restructuring projects in the Netherlands dealing with difficulties that have led to stagnation of restructuring projects for many years (Klaver, 2003; Laverman, 2004). The problems arise mainly from a change in role partitioning of the initiating parties in the restructuring process. This change forces local governments to let their traditional supervising role go and take stronger action as negotiators in the urban restructuring process in order to steer housing associations in realizing their societal objectives (Boon et al., 2004; Klaver, 2003). Housing associations on the other hand are now more aware of the high financial risks of the restructuring task, now that they are financially self-reliant, which makes them more cautious in the decision making process.

One or a combination of the following two factors causes the stagnation in most of the restructuring projects: limited expertise and knowledge in project development and cooperation difficulties between the initiating parties (Mzallasi, 2005). Initiating parties such as local governments and housing associations often have limited knowledge and expertise available in their organisations with regard to the development of feasible restructuring approaches or the successful implementation of restructuring projects. Commonly named reasons for failure in this context are failure to appreciate the complexity of executing the work, inadequate provision of time and resources to the project feasibility study and as final insufficient knowledge in mobilising social support for the restructuring approach (Rompelberg, 2004). The second cause for stagnation, namely cooperation difficulties, affects mostly the decision-making process and is related too limited transparency of the process and parties who cling to their concrete sub goals. Often the difficulties with regard to limited transparency concern a lack of knowledge in the motives, interests, costs and benefits of the other initiating parties. In general, they can arise from the strategic behaviour of parties in the decision-making process or the difficulties are due to non-implementation of uniform financial assessment methods. Either way, the main result of this is considerable distrust among the initiating parties leading to clinging to sub goals by each party.
This makes it difficult to reach consensus concerning a commonly agreed accepted goal and outcome, complicating the decision making process.

The case of Fannius Scholtenbuurt

To illustrate the above-described causes for stagnation, now follows a brief overview of the results of the exploratory case study the Fannius Scholtenbuurt. The urban restructuring process in the Fannius Scholtenbuurt, a late 19e century residential area in Amsterdam, has started in 1997 with the twofold objective to extend the life span of the dwellings by 25 years and to adapt the dwellings to the housing references of the current residents (Mzallassi, 2005). The restructuring operation consisted of the technical and physical updating of all dwellings, the amalgamation of dwellings, the sale of rental dwellings to individual homeowners, and the replacement of dwellings by new construction.

During the preparation and implementation of the project, several factors led to stagnation of the process for many years. A major bottleneck was the mobilisation of support amongst private and social property owners and current residents. This process took more time and effort than initially planned. At the beginning of the restructuring process, it appeared that the project organisation lacked the expertise and the knowledge with regard to techniques to mobilise support among residents. Lack of expertise was also cause for stagnation in the case of one of the sub projects, were the amalgamation of dwellings was the major intervention. In this case, the decision to implement this specific restructuring intervention is made without any insight in the technical state of the dwellings. The consequence was that the technical infeasibility of the intervention in several dwellings appeared too late, leading to stagnation and an enormous increase of the renovation costs. Other fail factor has been inequality within the power structure of the cooperation with regard to commitment to the agreements in the contracts, which made the contracts for one party les binding then for the other. It resulted in a lower amount of financial means adjudged by the local government for the restructuring operation then initially agreed in the cooperation contract. However, in the case of Fannius Scholtenbuurt did this difficulty in the cooperation not causing major stagnation. The lack of conflicts in the cooperation can be the result of the great amount of transparency in the restructuring process. The project management that used uniform feasibility assessment methods for every subproject created this transparency and the other initiating parties did not feel the need for alternatives1.

Based on the above described bottlenecks in general and more specifically the fail factors in the Fannius Scholtenbuurt, can be concluded that most causes for stagnation occur in the decision-making process at the preparation stage of the project and are related to the formulation of feasible objectives or interventions and mainly affect the implementation. More specifically, most of the stagnation in restructuring projects occurs in an early stage of the process when the initiating parties ought to reach consensus with regard to the feasibility of as well the restructuring approach as the products on project and sub project scale (Mzallassi, 2005). An instrument useful to assist this particular part of the decision-making process is comprehensive project feasibility assessment. The objective of this process is the assessment of the necessary operational expertise in order to provide the crucial knowledge for decision-making and to increase the transparency of the restructuring process.

Project feasibility assessment

Project feasibility assessment represents a comprehensive approach to identify, reappraise, and overcome potential operational problems (Wong, 2000) during the restructuring project. In this context, Wong (2000) defines project feasibility as "The assumption that a potential restructuring

1 See: Mzallassi, F. “Project feasibility assessment of urban restructuring projects; The Dutch context”, APNHR conference, September 2005, Japan.
project from the initiative to implementation is practicable, with the availability of the necessary operational tools; is economic and social justifiable; that the risks are manageable and is supported by all participants involved.” (Mzallassi, 2005) The current applied feasibility assessment techniques in urban restructuring fail to evaluate adequately project viability by settling with the assessment of economic, technical, and social viability of the restructuring interventions. Sometimes the determining factors for the overall feasibility are separately assessed and referred to as the technical feasibility, social feasibility, and financial feasibility, etc. (Mzallassi, 2005). In order to evaluate the overall viability of an urban restructuring project it is not enough to settle with the assessment of the overall feasibility of the interventions, but needs as well to be considered if all operational tools are available in the restructuring approach in order to enable implementation of the intervention.

The case of the Fannius Scholtenbuurt shows that the initiating parties settled with regard to the project feasibility assessment of the restructuring scheme with assessment of the overall feasibility of the interventions. The parties did not measure the feasibility of the restructuring approach. The feasibility assessment was conducted by the project management, on account of the local government, in order to support the decision making process concerning the choice between alternative interventions. The local government designed a process model that dictated that the three major ‘go’ or ‘no go’ decisions in this process would be decided by three contracts; the cooperation contract (project scale), the development contract (scale of the estate), and the execution contract (scale of the estate). The feasibility assessment is conducted by the project management at the feasibility stage to support the go/no go decision for a specific restructuring intervention on sub project scale (see figure 1). Later in the process, at the design stage, housing associations also conducted feasibility studies to support the internal go/no go decisions within their organisations concerning the financial feasibility of the design. The housing association used these studies as an instrument in the negotiation process with the local government.

![Figure 1: The decision making process with the three major go or no go decision.](image-url)
The local government applied a more comprehensive feasibility assessment approach than the housing associations by not only assessing the financial feasibility and the support among the residents but also including the technical and physical feasibility in the assessment. The housing associations based their go or no go decisions towards the interventions more on the weighting process between renovation and demolition with the technical quality of the foundation as determining factor. In the end however, even after conducting a comprehensive feasibility assessment, the factor that eventually determined for the local government the overall feasibility of the project was the social feasibility of the interventions. We can conclude that in the restructuring process the initiating parties conducted various assessment methods for different purposes for the assessment of their perception of viability of the restructuring interventions. However, none of these methods included risk analysis or did relate in the assessment process criteria for implementation to the restructuring intervention.

The feasibility assessment process in the case of the Fannius Scholtenbuurt underlines the notion that initiating parties settle with assessment of the overall feasibility of the interventions and do not consider within this assessment process if the restructuring approach contains all operational tools for successful implementation of that specific intervention. The case also shows that each party assesses the feasibility of the interventions separately with different assessment methods. Therefore, it appears that the factors determining the perception of what is feasible vary for each party and relates to the nature of the interest of that specific party. Project feasibility assessment as this paper presents it distinguishes itself from the above-described approaches for assessing the feasibility of urban restructuring projects by the questions asked in the assessment process, namely can it work, and can we implement it? In order to answer the question ‘can a restructuring project be implemented?’ needs the feasibility of each restructuring intervention be related to the restructuring approach necessary for implementation (Mzallassi, 2005).

This makes project feasibility assessment: A comprehensive assessment process, containing several stages of the restructuring process, supporting the major go /no go decisions in the decision-making process. It involves the problem definition, the general analysis of the advantages and disadvantages over time of alternative interventions and the financial closure. The outcome should be a set of documented qualified recommendations based on one explicit weighting method or a combination of weighting methods; to determine the form in which a restructuring project may proceed ensuring it is viable (Mzallassi, 2005).

The project feasibility assessment model

The previous section presents the urgency, purpose, and definition of project feasibility assessment in the context of urban restructuring projects. The case of Fannius Scholtenbuurt shows that project feasibility assessment in urban restructuring projects occurs at several stages and serves various purposes. Each party relates the diversity to the nature of the decision, the stage of the process and the perception on feasibility. The data from the literature review and the case study leads to the conclusion that project feasibility assessment in the context of urban restructuring must be an assessment process assisting the three main ‘go or no go’ decisions in the decision making process concerning the formulation of the objectives, the choice between restructuring approaches and the financial closure. A party that is able to anticipate in the divers’ interests of the initiating parties must conduct the assessment process. Therefore, an external party, assigned by the initiating parties, cooperating with the project management, may best

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2 The local government had, in the case of Fannius Scholtenbuurt, in the restructuring process a strong social interest that made the social feasibility the determining factor. The housing association, which was responsible for the implementation of the restructuring interventions, had a merely financial interest that made cost control a determining factor in the feasibility assessment process.
conduct the project feasibility assessment process. The project feasibility assessment model contains two components: the assessment process model and the content determining the project feasibility.

The PF assessment process model: pre-contractual stage, feasibility stage, and financial closure

In the decision-making process of restructuring projects at three crucial moments, need initiating parties to make go or no go decisions: the first at the initiative stage, the second after conducting the feasibility assessment and the third as closure of the design stage (see figure 2). The PF assessment process assists all three decisions, but as it appeared from the case study, the main emphasis lays on the last two decisions; at the feasibility stage and at the design stage. The nature of the Go/no go decision and the particular stage in which this decision is taken determines the form and content of the feasibility study acquired for assessment of the project feasibility.

**The pre-contractual stage**
The PF assessment process starts at the initiative stage with the *pre-contractual study*. At this stage of the decision-making process initiating parties should reach consensus with regard to the problem definition, the objectives of the restructuring project, the organisation of the restructuring process and the role partitioning between the parties. At this stage of the assessment process, is the purpose as well to commit the initiating parties to the restructuring project as to mobilise.
social support for the project. The example of Fannius Scholtenbuurt shows that good communication towards the residents and involvement of the residents in this stage is crucial for mobilisation of social support for the restructuring project. On the other hand, miscommunication in this stage can lead to resistance amongst residents, resulting in lots of distrust and stagnation or even termination of the project (Mzallassi, 2005). Therefore, the feasibility assessment conducted in the pre-contractual stage is to assist in clearly defining the objectives of the project and the role-partitioning between the parties, by including the problem definition in the study, thinking through an objective from its logical beginning to its logical end and determine its practical viability potential and the potential risks (Mzallassi, 2005).

The feasibility stage
In the PF assessment process lays the main emphasis at the assessments conducted at the feasibility stage. At this stage should the studies no longer be conducted on project scale, but on the scale of the subprojects. The purpose of the studies is to provide data for evaluating competing proposals in order to identify the best alternative. This implies that an alternative, existing of on one hand the restructuring intervention or a combination of interventions and on the other the approach for implementation, is assessed on its practical viability potential. The emphasis lays in this evaluation on the support by the initiating parties, the amount of social support, and the best operational potentiality. In this stage need all risks be analysed and is the valuation of the risk profile one of the crucial weighting criteria determining best operational potentiality.

The financial closure
After the design stage must the final go or no go decision be made towards implementing the sub project. At that stage of the restructuring process, it must be decided whether the proposed design will be implemented. This decision is based on assessment of the final (economic) viability of the proposed design. This kind of feasibility assessment evaluates all aspects of the project and includes the weighting of all costs, benefits and the execution risks. It provides the financial closure of the proposed project (National Treasury, 2001; Mzallassi, 2005).

The content of the model
Now we have described the assessment process, the main question remains; how do we evaluate the proposed project? In order to assess whether a proposed project is viable, the evaluation is conducted at four levels (see figure 4). The first level involves economic and social justifiability and the question asked is “will it make economic and social sense if it is built?” In the initiative stage of the restructuring process should most of the assessment at this level be conducted. The social justifiability of the interventions and the restructuring approach is measured by focussing on maximum achievement of the social objectives of governmental urban restructuring policy. Conducting a market research that assesses if the objectives or interventions lead to development of products that meet the future housing demands ought to determine the economic feasibility. Later in the process is the economic feasibility of the interventions more concretely assessed by financial feasibility studies in as well the feasibility stage as after the design stage, as financial closure.
At the second level the focus lays on the operational feasibility and the question that is asked at this level is “will it and can it work?” The operational feasibility is determined by the regulatory environment and factors of technical, financial, organisational nature (Mzallassi, 2005). Assessing the operational feasibility starts at the initiative stage, were initiating parties reach consensus with regard to the financial investments, the organisation of the project and the role partitioning of the initiating parties. At this stage starts also the analysis of the regulatory environment, which continues until the ending of the restructuring project. Specifically at the feasibility stage, at sub project scale, is the majority of the assessment conducted. The form and thoroughness of the studies are related to the type of interventions and characteristics of the location. By illustration, in the case of Fannius Scholtenbuurt was from the beginning of the restructuring process clear that the emphasis in the restructuring process will lay on renovation of the dwellings, because the past had already proven that the residents did not support demolition of the dwellings (Mzallassi, 2005). In the feasibility stage was therefore much attention paid to the technical-financial research\(^3\) and the housing preferences of the current residents.

The third level involves the mobilisation of the amount of support among the most important participants necessary for implementation of the project. The question asked at this level is “is their sufficient support for the project? And how to maintain this support?” The previous section already states that support is one of the determining factors for the project feasibility of restructuring projects. At first is at this level the amount of support for the project assessed, from the objectives until the final design. Emphasis lays here in the social quality of the physical products (objectives, interventions, design) and the amount of consensus reached among the initiating parties. Second, it is important in order to maintain the support through the whole process of restructuring, given the range of actors and organisations involved, to “be able to demonstrate the outputs of initiatives and to be able to point out the origins and consequences of any difficulties that have been encountered during the process of implementation” (Roberts & Sykes, 2000, p. 203). This emphasises the necessity of a high quality restructuring approach that adapts to changes in support among the participants. The development of the process design should take place at the initiative stage and the evaluation of the operational quality of this design is included in the pre-contractual study.

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\(^3\) This research included a technical analysis of the dwellings and the foundation, space analysis of the dwellings and a general estimation of the renovation costs of the divers’ renovation interventions (Mzallassi, 2005).
The last and final level is the evaluation of **the project risks**, which brings all levels together by asking, “*What are the various risks involved in the project and how are they managed?*” Specifically, for construction and restructuring projects, the implementation of the notion *time* is essential in the evaluation and the weighting of alternatives. Construction and restructuring projects are long-term projects attended by risks and insecurities (Gehner, 2003). Analyzing the advantages and disadvantages over time of objectives at the initiative stage is a way to face some of the risks. Inclusion of methods for analyzing and managing the risks in the restructuring approach is a crucial factor determining the project feasibility and is assessed at the pre-contractual stage and the feasibility stage.

**The ex-post test case study Nieuw-Hoograven**

Now we have presented in the previous section the first conceptual version of the Project Feasibility assessment model based on the results from literature review and the case study Fannius Scholtenbuurt, we present in this section the results of the ex-post test case study Nieuw Hoograven. After introducing the characteristics of the project, we focus on the decision making process and compare this process with the PF assessment process model.

**The characteristics of the restructuring project**

Nieuw-Hoograven is a post-war residential area in the south side of the city Utrecht, where the majority of the housing stock was built in the late fifties. The housing stock consists of 3000 small social rental multi-family dwellings in bad physical conditions. Two causes have led to the decision in 1992 to restructure Nieuw-Hoograven in a public private partnership between the local government, housing associations, and property developers. The first cause was that the dwellings did not respond to shifts in the local housing references, leading to the departure of particularly high-income households to qualitatively better dwellings in other districts and an in stream of households characterised by vulnerability. Although the urgency for restructuring the area was clear for many years, the government and the housing association owning the majority of the dwellings did both not have the financial means at their disposal to initiate the restructuring process. In addition, the housing association did also not have the expertise to achieve the restructuring ambitions of the local government. This led to the second cause that came in 1991 when three property developers were triggered to contribute to the urban restructuring process in a public private partnership with the local government and the housing association.

The developments stimulated the initiating parties to develop, over a period of five years, an integral restructuring plan for Nieuw Hoograven with the objective to upgrade the quality of the residential environment in order to attract high-income households and economic activities. Instruments for upgrading the quality of the area were replacement of the multi-level dwellings with newly constructed dwellings of higher standard, upgrading the public spaces and redevelopment of the economic activities. The project management worked this objective out in a development plan supported by as well the initiating parties as the residents and listed in a cooperation contract in 1997. The participants in this project are the local government, three property developers, one housing association and of course the current residents and entrepreneurs in the area. The role partitioning among the initiating parties implied in the case of Hoograven that the development of the land and the public space is on account of the local government, the project developers develop the dwellings for purchase and the housing association takes the development of social rental dwellings on its account. The local government initiated the project and was therefore responsible for the management of the restructuring process.

The development plan consisted of multiple subprojects of which the implementation would take place in two stages. However, only the development agreements towards the subprojects at the
first stage are listed in the contracts and only the participants initiating these subprojects have committed themselves to the implementation by these contracts. The subprojects at the second stage are eventually not implemented. The first stage started in 1998 and involved in first instance the demolishment of 388 dwellings, the construction of a shopping mall, the construction of 453 dwellings for purchase, the construction of 60 dwellings for private rental and 110 dwellings for social rental. The second stage was planned to start in 2002. Though the total restructuring process was supposed to provide 513 newly constructed dwellings of high standard, during the process the majority of the subprojects could not be implemented with the result that of the in 1997 originally planned dwellings in 2005 only 130 are constructed.

Most of the bottlenecks that caused the stagnation and inapplicability of the subprojects occurred in the restructuring process between the feasibility stage and the design stage and are mainly the result of the comprehensive characteristics of the subprojects. This implies that the inapplicability of one subproject directly has impact on the feasibility of the other subprojects and even on the project feasibility.

The decision making process versus the project feasibility assessment process

Comparable with the previous case study Fannius Scholtenbuurt, is in this case the decision making process also formalised by achievement agreements and contracts, namely: the intention agreement, the cooperation contract, the development contract, and execution contract. However, the three major ‘go’ or ‘no go’ decisions in the restructuring process are listed in the three contracts. When we compare the decision making process of both cases, significant differences appear concerning the stages and the project scale at which the decisions are taken and listed in the contracts (see figure 5). This results as well in differences in purposes as in the content of the contracts, despite the resemblance in name giving. We use the model for the PF assessment process to illustrate these differences and their influence on the project feasibility of
the restructuring project. Each stage starts with a description of the norm according to the model and ends with the actual situation in the project Hoograven.

The pre-contractual stage
In the previous section we stated that the pre-contractual stage takes place at the initiative stage and were the emphasis in the decision making process should lay on committing the initiating parties to the restructuring project and the prevention of resistance among residents for the restructuring project. The main ‘go or no go’ decision in the decision making process at this stage concerns the formulation of the objectives and the role partitioning of the initiating parties. The purpose of the assessment process is to support this by first evaluating the amount of consensus among the initiating parties with regard to the problem definition, the objectives of the restructuring project, the organisation of the process and the role partitioning between the initiating parties. As second is the purpose of the assessment in this stage to determinate the viability of each objective by assessing the operational feasibility of the project organisation and briefly analysing the potential project risks.

In the case of Hoograven did the pre-contractual stage take place at a very early stage in the process as start of the initiative stage. The purpose of this stage was the commitment of the initiating parties to the restructuring process by means of an intention agreement. Specifically in restructuring projects in public private partnership such as Hoograven were the partners not have equal interests and development roles in the process it is crucial to commit the partners to the process in an early stage. The nature and content of the agreement however makes it inadequate as an instrument for this purpose. Signing the agreement only commits the parties to the intention to restructure the area and not to initiate. What the role partitioning in the process will be and how the project will be organised are not questions that were answered at that point nor has any research been conducted in order to define the problem. The consequence has been that the local government considered the first restructuring scheme unfeasible, due to the poor problem definition and the non-involvement of residents in the design process, which increased the risk of resistance. This refusal of the scheme forced the initiating parties to develop a more feasible approach for organising the restructuring process that involved the current residents as well in the problem definition as in the design process. The result was a delay of three years and at the end of the initiative stage was the role partitioning among the initiating parties nor the commitment for the objectives formalised in a contract. A first analysis of potential project risks was neither conducted.

The feasibility stage
The first crucial moment in the decision making process with a major go/no go decision formalised in a binding contract took place at the second stage of the assessment process, the feasibility stage. At this stage states the PF assessment model that the feasibility studies should be conducted on sub project scale with the purpose to provide data for evaluation of competing proposals, existing of restructuring intervention and implementation approach, in order to identify the best alternative. The emphasis lays in this evaluation on the variables; supported by initiating parties, amount of social support, and best operational potentiality. The assessment at this stage also includes the anailisment of project risks and is manageability of these risks one of the crucial weighting criteria.

The feasibility assessment in Hoograven is conducted by an external party that integrated a financially feasibility assessment technique in the design process. This technique structurally offers insight in the financial consequences of design interventions on sub project scale and relates these consequences to the financial feasibility of the whole project. The result was the development of two alternative development plans that were presented to the current residents and entrepreneurs, whose preferences led to adjustment of one of the alternatives into a third

4 The property developers had at the initiative stage no property in the area and no societal interest which implies that they did not share in the problem definition and have no commitment to the restructuring task. The local government and housing association had property in the area, which made them responsible for the restructuring task and gave them a strong societal interest in the process.
alternative. Comparable with the case of Fannius Scholten did in this case the weighting between the alternatives take place with the amount of social support as the most determining factor. In the cooperation contract were he financial and organisational criteria for the further implementation of the development plan listed. In this contract is the role partitioning in the partnership and the aimed restructuring programme described as follows:

- the housing association brings in its property after taken the demolishment of the real estate on the property on its account and buys the property afterwards from the local government for the same price for the development of newly constructed dwellings in the social sector
- the development of the land and the public space occurs on account of the local government
- the dwellings in the private owned sector and the corporate real estate are developed by the property developers
- the construction programmes of each subproject in quantities, home ownership and typology

Finally, did the transparent organisation of the design process and the equal involvement of as well the initiating parties as the residents and entrepreneurs in this, successfully led to the development of a commonly supported development plan. However, this feasibility assessment approach is conducted on project scale, but existed of the evaluation of the financial viability of each sub project with one uniform assessment method. This led to on one hand the formulation of concrete construction programme for each sub project and on the other the financial sum of these sub projects provided the financial criteria for the project, both listed in the cooperation contract. This approach did not include the operational viability of the sub projects nor has any risk analysis been conducted. The consequences of these deficits in the assessment process appear in the next stage and have caused not only stagnation of the process but have led to the termination of several sub projects.

The financial closure
At the design stage should the initiating parties take the second major go/no go decision, when consensus must be reached concerning the construction programme. In accordance with the PF assessment model should the parties at this stage decide at the scale of the sub project based on the assessment of the final economic viability whether a proposed design should be implemented. The PF assessment model states that the feasibility assessment conducted at this stage evaluates all aspects of the project and includes the weighting of all costs, benefits and the execution risks providing the financial closure of the proposed sub project. Specifically in this stage appeared the negative consequences of the complementary calculation of the financial criteria and the exclusion of evaluating the operational viability of each sub project as part of the feasibility assessment process. By illustration, one of the subprojects included the redevelopment of an industrial area into a residential area by replacing the industrial real estate with 340 newly constructed dwellings for purchase. This sub project had a higher development profile, because it concerns private property and not only a physical transformation but a functional as well. Inclusion of the operational viability of this sub project in the feasibility assessment at the feasibility stage may have led to the identification of this higher risk profile that could be taken into account in the restructuring approach. Eventually is this subproject terminated due to difficulties with the legislation and the recruitment of the property. This subproject led to enormous financial shortages in the restructuring process limiting the financial resources for other sub projects, because of which several sub projects in the end appeared inapplicable.

The third and final go/no go decision in the restructuring process in Hoograven takes place during the preparation of the execution stage and concerns the financial closure towards the purchase of the property. At this stage has no stagnation or conflicts occurred, which makes this afterwards a less crucial decision in the decision making process then the previous two.
Conclusion

In this paper, we describe the progress of the development process of the conceptual model by presenting the first ex post-test of the Project Feasibility assessment model. With the PF assessment model we try to provide a solution for the bottlenecks in the decision making process with regard to cooperation difficulties and the lack of knowledge. The PF assessment process supports the go/no go decisions that are formalised in contracts through the provision of the correct knowledge for a specific go/no go decision. In order to offer this support it is necessary to have sufficient insight in the characteristics of the decision making process in restructuring projects and the factors determining the project feasibility of restructuring schemes. In the previous section, we concluded that after comparing the assessment process model with the decision making process in Hoograven, significant differences appeared concerning the stages and the project scale at which the decisions are taken and listed in contracts. These differences and their influence on the project feasibility of the restructuring project are illustrated by setting them out set out against the process stages of the PF assessment process model. Figure 6 at the next page provides a graphical presentation of the comparison of the decision making process in Hoograven with the Project Feasibility assessment model.

Based on the comparison we can draw a couple of conclusions. The first is that the ex-post test confirms that the major causes of stagnation take place in the decision making process. It also confirms that at the pre-contractual stage, the emphasis lays on committing the initiating parties to the restructuring project and at the feasibility stage the emphasis lays on identifying the best alternative with the amount of social support as crucial weighting criterion. The ex-post test complements the PF assessment model with data with regard to the nature and purpose of contracts in the decision making process. The example of the inadequacy of the intention agreement as an instrument for committing parties to a restructuring project illustrates this. This contract merely formalised the start of the restructuring project, through which the actual commitment of the initiating parties took place after the feasibility stage by means of the cooperation contract (see figure 6).

This brings us to the second conclusion; the use of a binding contract for multiple purpose which cannot be combined. The cooperation contract served in the test case two purposes: committing the parties to the restructuring project and listing the development agreements towards the implementation of the development plan. The combination of these purposes had as result that the initiating parties committed themselves not so much to the restructuring project, but merely to a rather concrete development plan with little flexibility. The difficulty of this situation is that the commitment of initiating parties takes place at project scale but development agreements may best be listed in development agreements on the scale of subprojects. The result has been the termination of the majority of the sub projects. Implementation of two contracts, the cooperation contract and the development contract at the end of respectively the initiative stage and the feasibility stage, as is done in the PF assessment model, might have prevented these difficulties (see figure 6).

In the further development of the PF assessment model needs besides the role of contracts in the decision making process, the influence of the shifting in scale that takes place in restructuring projects also to be considered. In the case of Hoograven did most of the conflicts and difficulties take place at the same stage at which this shifting in scale took place. At the next stage in the development process of the model the focus will lay on the influences of these two factors (contracts in the decision making process and the shifting in scale) on the project feasibility. The objective is to finish the conceptual model with the acquired data in order to conduct an ex-ante empirical test of the PF assessment model.
The decision making process in Hoograven with the three major go or no go decisions

**Intention contract**
- Go or no go decision
  - Choice between alternatives

**Cooperation contract**
- Go or no go decision
  - Execution or termination

**Development contract**
- Go or no go decision
  - Execution or termination

**Execution contract**
- Go or no go decision
  - Execution or termination

**Project scale:**
- Initiative - Feasibility stage

**Sub project scale:**
- A: project design - Programme - design - Preparation - execution
- B: project design - Programme - design - Preparation - execution
- C, D, etc...

**Pre-contractual stage - Feasibility stage - Financial closure**

**Cooperation contract**
- Go or no go decision
  - Execution or termination

**Development contract**
- Go or no go decision
  - Choice between alternatives

**Execution contract**
- Go or no go decision
  - Execution or termination

**Project scale:**
- Initiative

**Sub project scale:**
- A: feasibility stage - project design - Programme - design - Preparation - execution
- B: feasibility stage - project design - Programme - design - Preparation - execution
- C, D, etc...

The decision making process with the three major go or no go decisions

**Figure 6:** The PF assessment process related to the decision making process in the test case Hoograven
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