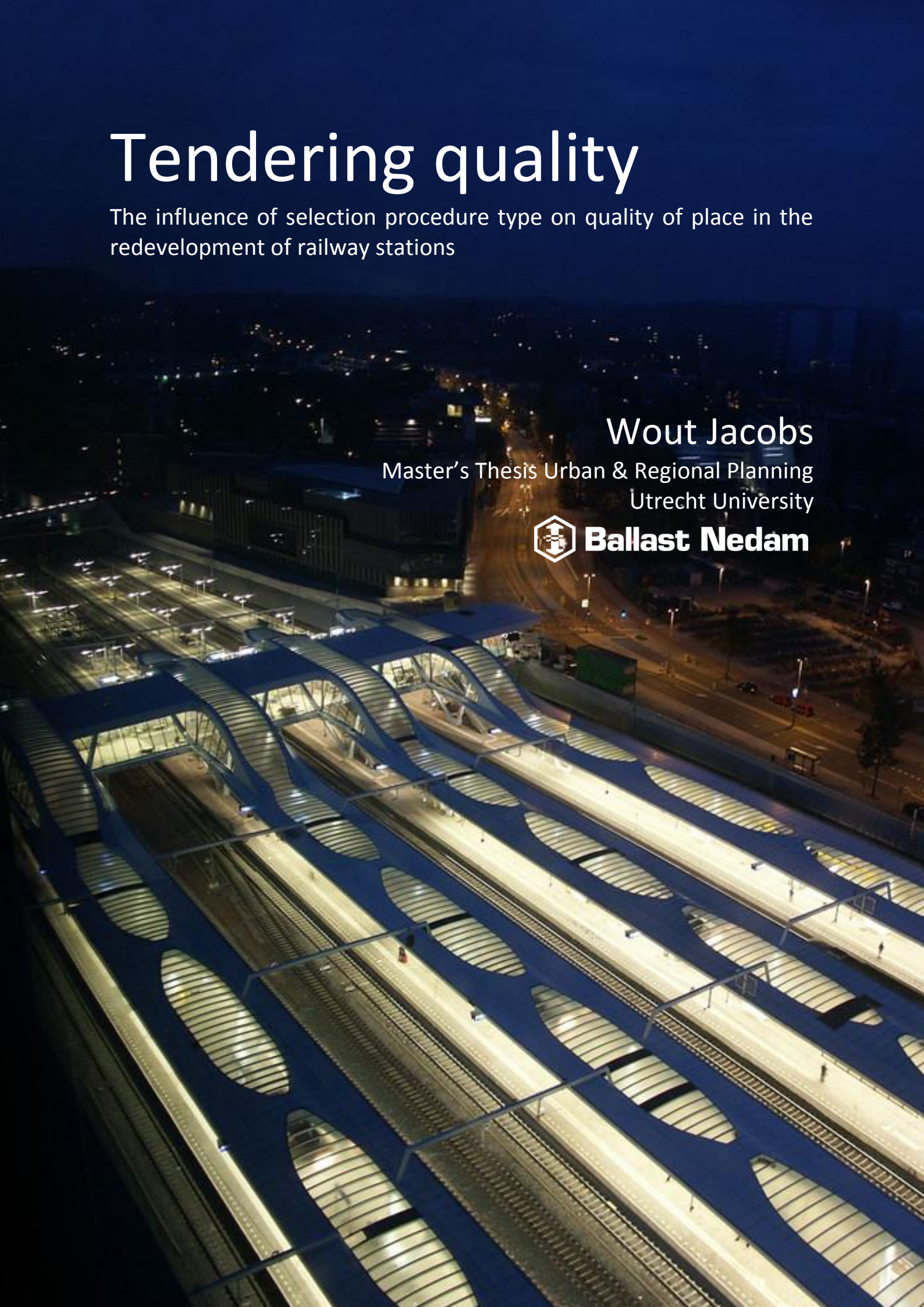
Tendering quality

The influence of selection procedure type on quality of place in the redevelopment of railway stations



Wout Jacobs
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Utrecht University
Ballast Nedam

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W. G. H. Jacobs BSc
3401561

University supervisor: Dr. F. Filius
Internship supervisors: Ir. M. Strampel & Ing. S. de Vries

Universiteit Utrecht

Ballast Nedam

PREFACE

This thesis is the final work of four years of studying human geography and urban and regional planning. While the opportunities of specialisation at the start seemed endless, quite soon the decision on urban and regional planning was made: the beginning of the way leading to this Master's Thesis. Throughout the past four years, the concreteness and visibility in daily life of issues in planning have been the appealing aspects of the subject. During the first week of studies, it was told that no planning student could ever see the world in the same perspective again. While this was first received critically, it can now be said that this is very true. Whether walking around in Christchurch or Chisinau, the planning perspective is always present and has become impossible to ignore. Especially during this final project, the combination of locations that are highly familiar for everyone and the process that shapes these places has been an interesting topic. Considering the amount of works in planning on railway stations, I'm sure that this is shared by many others in the discipline.

In this Master's degree, the final part of the studies consists of an internship which is combined with a thesis. For me, it was great to finally experience the practice of the work field and be able to combine studies and actual practical projects. By both working on this thesis and participating in the work field of plan development, the past eight months have been highly interesting. Therefore I would like to thank Marije, Sipke, Mark, Gertjan and all others within Ballast Nedam who helped me write this thesis and with the internship throughout this year.

Also, many thanks to Friedel Filius for guiding me through the process of thesis writing. At first it seemed difficult to find a real focus area, but our meetings were very valuable in discussing problems and helped me to find a research angle that I was interested and was appropriate for a thesis. While at the start the whole thesis seemed a giant challenge, throughout the months and meetings I gained much enthusiasm, which, after an unplanned revision of the subject, led to finishing right on schedule.

In order to carry out this research, I spoke with professionals about redevelopment projects that they were involved in. Without their insights and enthusiasm, this thesis could not have been written, so many thanks goes out to all the interviewees. Next, I would like to thank my fellow students Emma, Marga, Marjolein and Sander for the interesting meetings in which our experiences as interns and in thesis writing were shared. Discussing the theory also provided a great preparation for the final literature exam. Thanks to my uncle Lex for proofreading. Finally, many thanks to everybody around me; family, girlfriend, ODWD and friends for their support throughout writing this thesis.

For now, I hope you'll enjoy reading this thesis!

Wout Jacobs

Nieuwegein, 15 November 2012

Summary

Urban quality directly affects the well-being of people and the growth of the economy, which makes it an interesting topic for researchers of different disciplines. It is a concept that is applicable to all locations, but its effects are best noticeable in high density urban areas. During the past century, urban quality and quality of life gained more attention in research and planning practice and are now seen as one of the most important location factors for citizens and businesses.

Operationalisation of quality of life can take place using the term *quality of place*, which consists of three aspects: diversity, integration and public space. Especially in areas where different functions are located closely together, quality of place directly effects economic output. Therefore, when problems in some of the aspects of quality of place occur, such as deteriorating public space or bad integration of different parts of the place, intervention is needed most urgently in these places. This is currently happening in six New Key Projects (NSPs), government-funded redevelopment projects of railway stations, in which private parties are involved in construction through tender processes.

In a tender process, consortia of private companies create a bid after which the procurer grants the project to the best scoring consortium. Hereby the allowance for execution of the plan can be based on the plan that bears the lowest costs, adds the most value for society or a combination of both. Therefore the procurer makes a decision to either include or exclude qualitative elements in the selection procedure. A comparison between a procedure that is based on lowest price only and a multi-criteria procedure is made here, which focuses on quality of place elements during the procedures using the main research question:

To what extent does the type of selection procedure influence quality of place in the redevelopment of railway stations?

In this Master's Thesis it is researched how quality of place is influenced by the type of selection procedure of two redevelopment projects: the railway stations of Arnhem and Breda. Within these projects, Prorail is the procurer, while NS and the municipality are also on the procuring side through land ownership and the organisations' role.

The theoretical part of the research indicates changes in the way that the government operates: away from just being a manager towards being an actor among other players that influence the physical environment. Planning should take place jointly with both public and private actors: a collaborative approach. This situation is reached when institutional capacity is present, which depends on knowledge resources, relational resources and the capacity for mobilisation. Also, in planning policy and practice more attention for quality of life and quality of place has developed. Quality of place is seen as a major influence on location decisions; taking its elements into account in planning projects can help attract high-skilled employees to an area and therefore increase economic output. It is therefore interesting to see in what matter it is taken into account in the redevelopment of railway stations, if a collaborative approach is used and in what way that the selection procedure exerts influence.

In the empirical part, it is firstly questioned why certain selection procedures are used for these projects. In all of the NSPs, little influence on the plans was left to private parties because the demands of the procurers were already highly specific. In case of Breda, a price only procedure was used because this was demanded by NS, who carried the largest financial responsibility and therefore claimed the greatest influence. A multi-criteria tender with a set price limit was used in Arnhem which left engineering to the private actors. This was because the design caused troubles in the construction and the market's knowledge was necessary to find a solution.

The interests of the actors in quality of place are highly aligned with the role of the organization. For Prorail, functionality of the station is the most important aspect. NS has multiple roles as transportation company, store owner and real estate developer. In order to keep their customers satisfied, quality of place elements are relevant, in particular spatial integration and the quality of public space. The municipality's interests are similar, which results from a public role for the citizens and a private role as a developer. The tender candidate is interested in quality of place if elements are included in the plan. Though there is an opinion on quality of place, this wasn't discussed because it was excluded from the assessment.

In the two cases, quality of place wasn't influenced by the type of selection procedure. Though in Arnhem a multi-criteria procedure was used, only one selection element could influence quality of place: materialization of the building. However, this didn't influence the quality of public space because the contractor was encouraged to stick to the reference design. An element of the procedure on which private involvement was desired in both procedures was how to deal with the fact that the station would remain open throughout the building process. Though it wasn't part of the selection criteria, still quality of place was influenced by the contractor here because of the way that the building process was organised. This affected public space, spatial and functional integration and duration of the building process. The second influence that the whole redevelopment process had on quality of place was the amount of time that it took to agree on the plans between the procuring organisations and carry out a successful tender procedure. This caused the old or temporary station to persist and delayed improvements on quality of place, such as improved public space and completion of new retail.

Quality of place is therefore not influenced by these selection procedures because decision making on its elements was finished before both tender procedures started. However, it is influenced during construction and by the way that the redevelopment process was organised. In the redevelopment of railway stations, the specific demands from the procuring parties caused for no further involvement of private parties on plan formation, however influence could be exerted by the contractor on how to deal with the station during construction. A true collaborative approach is therefore not present yet in the redevelopment of railway stations, relational resources by means of plan formation between the procurers are the greatest problem. The procurers do however succeed in mobilising the market and using the markets' knowledge resources for plan elements for which this is necessary.

Nederlanse samenvatting

De kwaliteit van de leefomgeving beïnvloedt het welzijn van mensen en de groei van de economie, waardoor het een interessant onderwerp is voor onderzoekers van verschillende disciplines. Het is een concept dat toepasbaar is op allerlei locaties, maar waarvan de effecten het best merkbaar zijn in stedelijke gebieden met een hoge dichtheid. In de afgelopen eeuw heeft stedelijke kwaliteit en de kwaliteit van leven meer aandacht gekregen in onderzoek naar en praktijk van planning en wordt het nu gezien als een van de belangrijkste vestigingsfactoren voor burgers en bedrijven.

Operationalisatie van levenskwaliteit kan plaatsvinden door middel van de term *quality of place*, wat bewust niet vertaald wordt omdat het niet hetzelfde is als ruimtelijke kwaliteit. Quality of place is specifiek uitgewerkt in drie deelgebieden: diversiteit, integratie en openbare ruimte. Met name in gebieden waar verschillende functies dichtbij elkaar gelegen zijn heeft quality of place invloed op het economische resultaat. Als er in dit soort gebieden problemen in quality of place-elementen optreden, zoals verloederde openbare ruimte of slechte integratie van verschillende gebiedsdelen, is ingrijpen dan ook het meest noodzakelijk. Momenteel gebeurt dit bij zes Nieuwe Sleutelprojecten (NSP's), herontwikkelingsprojecten van treinstations waaraan de overheid financieel bijdraagt en waarbij private bedrijven worden betrokken door middel van aanbestedingsprocedures.

In een aanbestedingsprocedure of tenderprocedure creëren consortia van private bedrijven een bieding waarna de aanbestedende dienst het project aan het best scorende consortium gunt. De toewijzing voor de uitvoering van het werk kan gebaseerd zijn op het plan dat de laagste kosten met zich meebrengt, de meeste waarde voor de samenleving toevoegt of een combinatie van beide. De aanbestedende dienst maakt dan ook altijd een keuze om kwalitatieve elementen al dan niet onderdeel van de selectieprocedure te laten uitmaken. In dit onderzoek is een vergelijking gemaakt tussen een procedure die is gebaseerd op laagste prijs en een multicriteria-procedure, gefocust op quality of place-elementen in de procedure en gebruik makend van de hoofdvraag:

In welke mate beïnvloedt het type selectieprocedure quality of place in de herontwikkeling van treinstations?

Dit wordt in deze masterthesis onderzocht bij twee herontwikkelingsprojecten: de stations van Arnhem en Breda. Binnen deze projecten is Prorail de aanbestedende dienst, maar staan NS en de gemeente ook aan de aanbestedende zijde vanwege bezit van gronden en de rol van deze organisaties.

Het theoretische gedeelte van het onderzoek geeft aan dat er veranderingen optreden in de manier waarop de overheid handelt: weg van een rol als manager naar een rol als actor tussen verschillende spelers die de fysieke omgeving allemaal beïnvloeden. Planning zou gezamenlijk plaats moeten vinden met publieke en private partijen: een collaboratieve aanpak. Hier is sprake van wanneer institutionele capaciteit aanwezig is, die afhangt van kennismiddelen, relationele middelen en mobilisatiecapaciteit. Daarnaast is er in het beleid over en de praktijk van planning meer aandacht ontstaan voor levenskwaliteit en quality of place. Quality of place wordt gezien als een zeer grote invloed op locatiebeslissingen; het in beschouwing nemen van de elementen in herontwikkelingsprocessen kan helpen om hoogopgeleiden aan te trekken en economisch resultaat te vergroten. Het is daarom interessant om te zien in welke mate het meegenomen wordt in de herontwikkeling van treinstations, of een collaboratieve aanpak wordt gebruikt en in welke manier de selectieprocedure hier invloed op heeft.

In het empirische gedeelte wordt allereerst de vraag gesteld waarom bepaalde selectieprocedures worden gebruikt voor deze projecten. Bij alle NSP's is zichtbaar dat er weinig invloed op de plannen

wordt overgelaten aan private partijen omdat de eisen van de aanbestedende diensten al zeer specifiek waren. In het geval van Breda heeft een selectie op laagste prijs plaatsgevonden omdat NS dit verlangde en de meeste invloed opeiste vanwege het nemen van de grootste financiële verantwoordelijkheid. In Arnhem werd een multicriteria-selectie met een vaste prijslimiet gebruikt, waarbij het ingenieurswerk aan private partijen werd overgelaten. Dit was vanwege het feit dat het ontwerp moeilijkheden in de constructie met zich meebracht en de kennis van de markt nodig was om deze problemen op te lossen.

De belangen van de actoren in quality of place komen grotendeels voort uit de rol van de organisaties. Voor Prorail is de functionaliteit van het station het belangrijkste aspect. NS heeft verschillende rollen als transportbedrijf, winkeleigenaar en vastgoedontwikkelaar. Om de klanten van NS tevreden te houden zijn quality of place elementen van belang, in het bijzonder ruimtelijke integratie en de kwaliteit van de openbare ruimte. De belangen van de gemeente zijn vergelijkbaar, wat voortkomt uit een publieke rol voor de inwoners en een private rol als ontwikkelaar. De tenderkandidaat is geïnteresseerd in quality of place-elementen wanneer deze onderdeel uitmaken van de aanbesteding. Hoewel er een mening vanuit de kandidaten over quality of place is, is deze niet besproken omdat deze tijdens de selectieprocedure niet getoetst is.

In de twee cases is quality of place niet beïnvloed door het type selectieprocedure. Hoewel in Arnhem een multicriteria-procedure werd gebruikt, kon slechts één selectie-element quality of place beïnvloeden: materialisatie van het gebouw. Uiteindelijk heeft dit niet geleid tot invloed op quality of place omdat de aannemer werd aangemoedigd om zo dicht mogelijk bij het referentieontwerp te blijven. Een element in de procedure waarin private betrokkenheid gewenst was door de opdrachtgever bij beide procedures is hoe er omgegaan werd met het feit dat het station open zou blijven gedurende het bouwproces. Hoewel dit geen onderdeel was van de selectieprocedure, had de aannemer toch invloed op quality of place omdat het betrekking had op de manier waarop het bouwproces werd ingericht. Dit beïnvloedde openbare ruimte, ruimtelijke en functionele integratie en doorlooptijd van het bouwproces. De tweede invloed die het hele herontwikkelingsproces had op quality of place was de tijdsduur om tot overeenkomst te komen tussen de aanbestedende diensten en een succesvolle tenderprocedure uit te voeren. Hierdoor bleef het oude of tijdelijke station langer staan en werden verbeteringen op het gebied van quality of place vertraagd, zoals vernieuwde openbare ruimte en oplevering van nieuw vastgoed.

Quality of place is daarom niet beïnvloed door deze selectieprocedures omdat de besluiten hierover al waren genomen voordat de tenderprocedures startten. Het wordt wel beïnvloed gedurende de bouw en door de manier waarop het herontwikkelingsproces is georganiseerd. Bij de herontwikkeling van deze stations resulteerden de specifieke eisen van de aanbestedende partijen ervoor dat private betrokkenheid in de planvorming niet gewenst was, maar de aannemer had wel invloed op het gebied van tijdelijke situaties. Van een echte collaboratieve aanpak is bij de herontwikkeling van stationslocaties dan ook nog geen sprake: de relationele middelen zijn hierin nog het grootste obstakel. Wel slagen de aanbestedende partijen erin om de markt te mobiliseren en kennismiddelen te gebruiken voor planonderdelen waarvoor dit gewenst is.

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Chapter 1 Introduction

In our daily lives, transportation of people has become one of the most important policy issues. As over half of the working population commutes to work, our economy is highly dependent of the transport system (CBS, 2012). Within this system, railway stations are the places where transport lines start, cross and end and are therefore visited by a great number of people every day. Stations contain a transportation function but are also places for leisure, work and shopping, which causes different interests to be at stake in the same area. This creates difficulties in planning these areas: a railway station should look good, contain enough places to sit and wait, provide office and catering space, while still allowing the transportation networks to run though it and carry passengers and freight to their destination. As time passes the demand for transportation increases and preferences in the use of functions and the lay-out of the area change, which creates a need for redevelopment. Railway stations have become a major issue in Dutch national policy and a great amount of funds is reserved and spent on improvement measures (Rijksoverheid, 2003). This will have a great impact on the way thousands of travellers and other users experience railway station areas.

The way that people experience a station depends on the qualities of the area. In 1961, in one of the most famous and influential works on urban planning, *The Death and Life of great American Cities,* Jane Jacobs discussed the quality of urban life and the flaws in the planning system. According to her, diversity is the most important reason for places to become successful, both economically and socially (Martin, 2006). This can be seen as the start of the mainstream debate on urban quality. Diversity appears to be one of the factors that determine urban quality and therefore quality of life and make a place successful. Four decades later another highly influential scholar, Richard Florida, enrichened the topic by stating that the characteristics of the environment determine the settlement of the 'creative class,' which is in turn responsible for the growth of the economy (Florida, 2002).

Jacobs and Florida are among the most famous researchers of urban quality, but many others (for instance Gospondini, 2002, Hubbard, 1995 and Kent, 2000) have written on the topic, often combined with urban design. It can be concluded that urban quality directly affects the well-being of people and the growth of the economy, which makes it an interesting topic for researchers of different disciplines. It is a concept that is applicable to all locations, but its effects are best noticeable in high density urban areas. According to Trip, operationalisation of urban quality and quality of life can take place using the term 'quality of place,' which consists of three aspects: diversity, integration and the quality of public space (Trip, 2007, p. 67). Especially in areas where different functions are located closely together, quality of place directly effects economic output. Therefore, when problems in some of the aspects of quality of place occur, such as deteriorating public space or bad integration of different parts of the place, intervention is needed most urgently in these places. Urban redevelopment is often seen as a solution that can tackle problems that occur as a result of a low quality of place and a possibility to create better cities (Schwartz, 1993, p. 98).

When the amount of visitors of a place rises, problems become more visible and redevelopment becomes more urgent. Railway stations are typical locations where quality of place can interfere with efficiency: areas that are designed to be highly efficient are often not a great place to stay. The accommodation of different functions in the area, a high flow of visitors and the architecture of the building itself lead to an interesting topic in media, research and politics (Budé et al, 2011). This is visible in the recent attention for station area redevelopment in The Netherlands: the central government addressed the need for redevelopment by creating New Key Projects, six train stations which had to be rebuilt in order to be prepared for future international high speed rail linkages (Rijksoverheid, 2003). These projects (Amsterdam Zuidas, Arnhem, Breda, Den Haag, Rotterdam & Utrecht) receive funding of over 1 billion Euros for the redevelopment of the terminal and surrounding areas. In order to prepare the stations for the high speed train, the places around it

needed to be prepared as well. Quality of place is taken into account here by granting funds that satisfy the current demand for functions in the station, create a better integration of the station into the city and improve public space. Though this is done implicitly, without the government addressing the concept, it stresses the importance of quality of place elements in current public policy, planning practice and daily life for millions of commuters.

Example redevelopment project: Amsterdam Centraal

An example of an ongoing redevelopment project in the Netherlands is Amsterdam Centraal, which is however not one of the New Key Projects. The hub contains a train, bus, tram and metro station with 250.000 daily visitors, which is expected to rise to over 300.000 (Prorail, 2012). Because of the construction of a new metro line that stops at the station and the expected rise in the number of visitors, redevelopment of the area started in 1997. The goal is to create a 'high-quality entrance' to the city, while connecting all modes of transportation in a place that is pleasant to stay and shop in (Amsterdam Centraal, 2012). The redevelopment contains many separate projects, such as renovating existing station halls, building a new bus terminal with a hall (see figure 1.1, left side), reconstructing tunnels and a new square on the city side of the station, all while maintaining the characteristic front facade of the station. This should both improve the integration of the station into the city and create a better public space: two quality of place elements are main goals in this redevelopment. While the managers of the project might not be familiar with the concept of quality of place, implicitly its elements are taken into account because they are seen as factors that are crucial for this place to be successful.

Figure 1.1 Impression of Amsterdam Centraal after completion

Source: Prorail, 2012a

1.1 Problem definition

The New Key Projects are currently the largest redevelopment task of the Netherlands, and their inner-city location with many functions leads to involvement of many public and private parties throughout the process in railway station projects. With several parties involved on both sides., the government experiences difficulties in gaining control over claims of space, which makes it difficult to stimulate desired situations (Priemus, 2003). The case studies of this thesis indicate the complexity in involved actors: there are three organisations on the client side, different government levels are involved, private consortia consist of different contractors and there is a great variety of users of the places. Each actor has its own scope on the problem and can therefore see different solutions and opportunities. Financial responsibilities are often shared between the contracting authorities, but the question is if quality of place can be seen as a similar shared responsibility in the process.

The current financial situation in The Netherlands creates a demand for knowledge on quality of place in redevelopment projects. This is firstly because the concept of quality of place gains a lot of political attention and efforts are made to invest in it during economic prosperity (Andrews, 2001). It is however a subject that could be overlooked during current events, when budget cuts have to be made and plans are reduced to just the necessary interventions. Secondly, because of the financial situation of both government agencies and project developers and the history of building projects as financial gains. In the past decades, large-scale development projects of greenfield sites where the municipal government took financial risks in order to generate profits were very common. However, currently the focus area in urban planning shifts to redevelopment of inner-city locations and risk taking by public parties is out of the question (Sturm-Reijnders, 2010, p. 39). In order to avoid the many financial losses that municipalities have had to face, private parties can be challenged to develop their own plan and share risks and profits in a process of *creative competition* (Teisman, 1997).

The public parties cannot carry out the entire projects on their own and for the execution of the construction works private contractors are used. One of the earliest stages of urban redevelopment in which both public and private parties are involved, is the selection or tender process. In the selection process, different consortia of private companies can create a plan, after which the procurer or contracting authority chooses one of them to be implemented (Krüger, 2004). In case of the NSPs, the winner of the tender process is allowed to build the station for the price that has been agreed on throughout the procedure. Previously, selection of the tender winner was mainly based on price, with less attention for quality (Jennings & Holt, 1998). The works would be granted to the party that could build for the lowest possible costs. However, a shift to multi-criteria selection is visible, in which quality of the total plan, rather than just price alone, determines the choice of consortium (Wong et al, 2000). The procurer creates the preconditions, but the consortia are expected to create their own vision on and solutions to the problem, and even implement funding and profit making opportunities. During this process, the first drafts of the architectural outcome of the redevelopment are created, along with the financial, legal and maintenance frameworks. Different levels of involvement by market parties are possible, which can even include maintenance and operation of the project after completion.

As the concept of quality of place is hard to grasp and some aspects of it are only noticeable after completion of a project (the 'look and feel' of a place), explicit planning for a high level of quality of place is difficult. Elements of it are often taken into account because the creation of a 'good place' is desired, even though actors are not familiar with the exact concept (Trip, 2007, pp. 143-146). The interactive view on government policy already confirms that private parties hold instruments that influence quality of place (Hooimeijer et al, 2001, pp. 40-41). The elaboration of urban quality is no

longer fixed at the start of the planning process, but is operationalised by interaction between the actors during the process. However, is building a 'good place' relevant for all actors in the process, doesn't the project developer, contractor or railway operator just want to make a profit? Or has corporate social responsibility already developed in a sense that even profit driven companies want to create better places? The truth is probably somewhere in between, but undoubtedly the increase in redevelopment projects with different stakeholders influences the way that responsibilities on quality of place elements are shared. Still, the number of actors involved creates a haze around the responsibility of quality of place and the way that management of the subject takes place deserves further research.

Of course, in any building process, legal security is sought for by contractual agreements which are legally binding. Nevertheless, as the concept of quality of place contains many intangible aspects that are not easily definable or even taken explicitly into account by the actors, this means that they are impossible to put into contract. Also, calls are made by the central government for a more flexible planning system that offers improved opportunities to deal with societal changes during the planning process and even the building phase (Priemus, 2010). This flexibility requires less contractual arrangements, which makes the issue of responsibility more difficult. Consequently, the different actors all influence quality of place, but contracts are not in all aspects leading for the realisation of a high level of quality of place. The way that actors deal with responsibilities of quality of place aspects that are not covered by contractual agreements could therefore be noticeable in the level of quality of place in the final product.

Trip (2007) researched how aspects of quality of place are included in the redevelopment of two New Key Projects (Amsterdam Zuid and Rotterdam). His research is therefore a highly valuable resource for further focus on infrastructure area redevelopment. However, it covers quality of place in the development plan, which is the phase that precedes the tender process. In order to expand the knowledge on quality of place in redevelopment processes, it is necessary to see what the importance of quality of place is during the selection process and in particular how both sides deal with quality of place elements. The procurer chooses the type of selection procedure and has the greatest influence on the redevelopment project by controlling the tender procedure or even the master plan. The contractor has the most direct influence on the location during construction and is responsible for delivering a product (i.e. a building or road). However, the contractor is dependent of the preconditions that the initiator poses. The procurer is therefore likely to be highly influential on quality of place, although in partnerships project developers and contractors can implement project components that also affect quality of place. In case of railway station redevelopment, there is one official procurer, Prorail, but the municipality and railway operator NS are also on the client side, which creates great complexity. The type of selection procedure that results from the plan development by these parties determines the extent to which private parties become involved in the project.

Concluding, the tender process and in particular the selection procedure can influence quality of place during the planning phase of redevelopment projects. Selection of a contractor is usually done by tenders, in which consortia of private companies create a bid and the procurer grants the project to one of them. Hereby the allowance for execution of the plan can be based on the party that adds the most value for society, bears the lowest costs or a combination of both. Therefore the government always makes a decision to either include or exclude quality elements in the selection procedure. A comparison between a procedure that is based on lowest price only and a multi-criteria procedure that is based on a combination of factors that add the most value could provide clarity. When using a selection type that encompasses quality elements, private parties are involved in the plan formation and are challenged to create the best plan. With a tender based on lowest price, contractors are challenged in a different way: finding ways of building the project for the lowest possible price, based on fixed specifications and conditions. Therefore, differences in quality of place

elements could occur under different selection procedures because responsibilities differ and private actors are asked to participate on different levels and in different stages of the redevelopment project.

1.2 Research questions

The problem definition leads to a focus on quality of place aspects in selection procedures of railway station redevelopment projects. When transferred into a question, this generates the following main research question:

To what extent does the type of selection procedure influence quality of place in the redevelopment of railway stations?

First, it is necessary to explore the concept of quality of place. This is mainly based on research on the subject, using the research question:

How has attention for quality of place evolved over time?

Next, it is found out which selection procedures are used in railway station redevelopment projects. Also, it is matter of research what the considerations are when a specific type of selection procedure is chosen. This will lead to the properties of the selection procedures of railway stations and reasons for choosing them in the second sub question:

Which types of selection procedure are used and what factors determine the choice for a procedure in the redevelopment of railway stations?

While the second research question focuses on the procurer, the research will continue with attention for both the procurer and other actors in quality of place. It is researched what their ideas on quality of place are and how this influences the process:

What are the interests of the actors in quality of place?

Finally it is clear why certain selection procedures are used and what the interests of the actors are. Now, it is time to point how quality of place elements are influenced by the used selection procedures. This leads to the final sub question:

Which elements of quality of place are determined by the selection procedure?

1.3 Goal and relevance

The goal of this Master's Thesis is to see how quality of place is influenced by the tender procedure of a redevelopment process. As one of the earliest stages in the planning process of a redevelopment project, the selection process is the matter of concern. By gaining insight into the procurer and other actors' views on quality of place and the adoption into the building process, differences between the projects can become visible. This will lead to recommendations on the selection process, both for the public and private parties. Research on the causal links between public policy and quality of place is lacking (Andrews, 2001). A scientific contribution is therefore made in order to overcome the absence of existing knowledge on the influence of the selection procedure on quality of place.

The significance of this thesis is established by both types of relevance: scientific and societal. The scientific relevance concerns the lack of knowledge on the topic, the social relevance is based on the contribution to solving existing, practical problems in society (Boeije et al, 2009, p. 47).

In research in urban and regional planning, a distinction can be made between research *of* planning and research *in* planning (Van Thiel, 2010). Research of planning comprises the process in which development of policy making is formulated and executed. Research in planning deals with specific problems or locations and therefore precedes the actual spatial development process. Though the distinction between the two types of research seems straightforward, often they are combined in actual research projects. This can be the case when the problems of a location are being researched together with the planning process that follows. This research is mainly part of research of planning, by looking at the process itself. A smaller part of the research covers the actual features of the places in the case studies, but this is to support the research on the process and not a study in itself.

Research on planning processes is often carried out after the realisation of the project. In this case, the research takes place in earlier phases of the process. The downside of looking at the selection process is that the final place isn't visible yet. However, in this phase choices over what the place should look like and which functions it should comprise can be made, decisions that are crucial for the final location. The growing number of redevelopment processes creates a demand for knowledge on infrastructure (re)development projects (Koppenjan, 2005). By providing insights in these processes and in particular the role of quality of place during the process, this research contributes to existing literature and creates a link between the selection process and quality of place. On quality of place, there has been recent research on the redevelopment of high speed train station areas (Trip, 2007). Trip investigates how quality of place is involved in the redevelopment of the stations and surrounding areas. However, further research on quality of place in current planning practice is needed (Kloosterman & Trip, 2011). This thesis questions quality of place in the planning process and focuses on how the concept of quality of place is influenced by different selection procedures. Also, as case studies, the two stations of which construction started most recently are used here.

The social relevance of this thesis is demonstrated by the visibility of quality of place aspects in everyday life. Complaining about how ugly a place is, is an easy conversation starter and the beauty of an area also offers plenty room for discussion. Quality of place effects the way that people behave, which once again has effects on the economy (Trip, 2007, p. 35). Recently, a Dutch television programme on spatial planning fiascos chose the 'ugliest place of the Netherlands,' a deprived shopping mall in Enschede (Elsevier, 2012). Recommendations and further research on quality of place aspects should eventually lead to better places, so citizens can benefit from it. Next to the quality of place aspects that are visible after redevelopment, the social relevance is also stressed by researching the shared responsibilities between public and private parties. When private parties don't automatically develop plans on their own anymore because of the risks, solutions need to be found in order to initiate development projects (Klaver, 2012). Knowledge on choosing the right type

of selection procedure and maintaining quality in these processes is therefore highly useful in order to start new projects and create successful places.

1.4 Research outline

The thesis uses two approaches that complement each other: a theoretical framework and an empirical part. The theoretical framework provides an overview of how the literature on the topic developed over the years and what the current views are. Because quality of place is linked to specific locations and projects, empirical research is necessary in order to answer the research question. In chapter 4, these research methods will be explained further.

Chapter 2 and 3 constitute the theoretical framework of this thesis. In chapter 2, the policy context and history of urban planning in general and transportation in particular is addressed. From here, the approach to collaboration in redevelopment projects which is used in the rest of the research is set. Chapter 3 then explains where quality of place originates from, what the significance of the concept is and of which elements it consists. These two chapters are therefore the base that explains the approach in which the research is seen. It is an essential part of the thesis, however for those who are more interested in the actual redevelopment projects not strictly mandatory to read.

In chapter 4, the methodology is set forth. This covers the research methods, case study selection, list of interviewees and definitions of concepts. By explaining the research methods which are used in the theoretical and empirical part, this chapter acts as a bridge between the two parts in the thesis. The choice for these specific cases is clarified, but detailed information on the projects is left for the next chapter.

Chapter 5 and 6 are the empirical part of the research. Here, the redevelopment process and selection procedures in general are explained first, after which the cases are explained and placed in the gained framework of knowledge of selection procedures. The choice of procedure type for each of the cases is explained based on the empirical research. Chapter 6 combines the theoretical insights on quality of place with the practice of redevelopment by looking at quality of place elements during the selection process. Chapter 5 and 6 are therefore the most useful for those who are interested in the redevelopment process and the consequences of choices in the selection procedure.

The last chapter is the conclusion and answers the main research question, based on the insights of all previous chapters. Finally, recommendations for further research and planning practice are given.

Chapter 2 Policy context dynamics

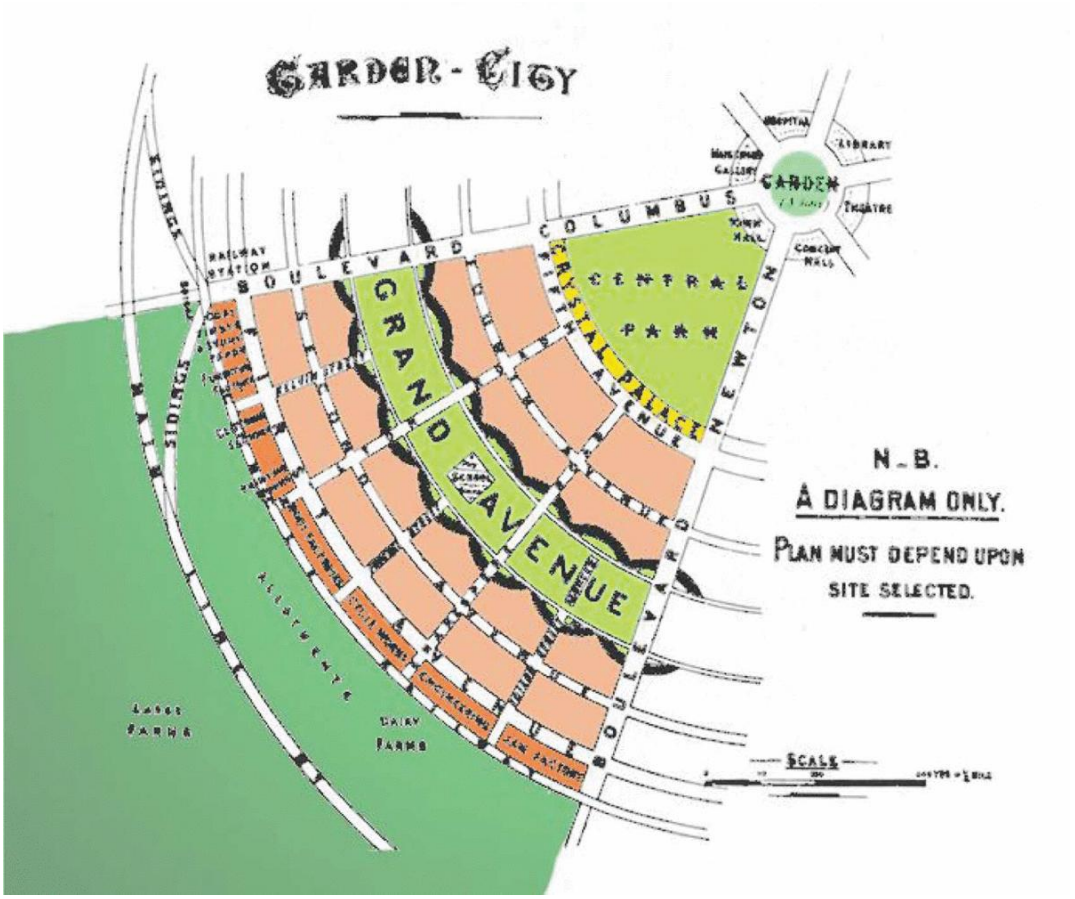
Throughout the history of urban planning, the way that the government operates has always been the subject of public discussion. This has resulted in a dynamic policy context with shifting responsibilities between public and private actors, leading to a higher level of active involvement of stakeholders. The nature of planning problems, which is more problematic than many other issues because of the involvement of multiple government areas, enhances complications when a change of direction in public policy is desired. Rittel and Webber stated that social problems and planning problems in particular are 'wicked' problems, as opposed to 'tame' problems that engineers and scientists usually deal with (Rittel & Webber, 1973). While engineering problems can be solved and tested, planning problems are ill-defined and require political judgement. Each planning problem is unique and extremely difficult to comprehend and formulate. It is often unclear what approaches can be used to tackle the problem and even if this is the case, it is unclear which are the best. After policy action has been taken, it is often impossible to tell if the desired effect has been reached. Moreover, every wicked problem can be seen as a symptom of a bigger problem and choosing at which level to operate is a subjective choice.

By seeing planning problems as wicked, it is clear that debate on planning policy will always occur. While dealing with social problems remain problematic, different approaches to planning have been used in order to overcome some wicked aspects or at least provide a transparent, democratic base for decision making. One of these strategies is the collaborative approach, in which an alliance of public and private parties is formed in order to resolve planning issues (Healey, 1998). In this chapter, this will be looked into using both general public administration and planning theories. In the first paragraph, it will be clear that a transition to a more collaborative approach of urban planning is in progress. The second paragraph covers the concept of institutional capacity and provides the ontological base of constructivism. The resulting policy context of transport planning is set forth in paragraph 2.3. Here, the implications of the collaborative approach and institutional capacity for transportation hubs are explored, whilst also covering issues that especially apply to transport planning.

2.1 The collaborative approach

In the Netherlands, the Housing Law of 1901 is seen as the start of government induced, systematic spatial planning (Spit & Zoete, 2006, p. 171). The initial goal of planning was to build affordable, qualitative housing for labourers in order to improve their living conditions. At the local level, systematic planning was performed by building neighbourhoods, ideally based on the garden city concept of Ebenezer Howard, which used design features such as wide roads and many public parks (Howard, 1902, see figure 2.1). Some ideas that we now see as a part of quality of place are highly visible in these ideas, such as recreation areas near residences, environmental quality and aesthetics (see chapter 3). The garden city is therefore one of the first works that link the quality of a place, efficiency and living conditions.

Figure 2.1 Example of a garden city lay-out



Source: Bliss (2012)

As the country moved to a welfare state in which the government's influence area increased, the objectives of town planning shifted from controlling the layout and design of residential areas to achieving goals of national economic and social relevance. Spatial interventions were justified by performing local research on what should be done, which the urban planner and sociologist Patrick Geddes called 'survey before plan' (Van der Valk, 1990, pp. 6-12). When the driving forces in an area would be discovered, the necessary policy implications would become clear: the start of 'positive planning' (Cullingworth & Nadin, 2006, p. 24). In the 1920s, the British surveys gained influence in The Netherlands, first with a broad, academic view, later on more applied to gaining specific knowledge for spatial plans. During these days, planning was still inherent to the expansion of cities and developing housing projects, no separate infrastructure or transport planning had been developed yet. Planning every neighbourhood through the garden city concept was an impossible

expectation and too costly for the high demands of public housing capacity. The focal point was efficiency, which caused many city areas to be laid out by governmental planning agencies in isolation of their surroundings.

In the next decades, spatial planning would remain modernist, in which politicians decided on goals and resources after which planners would have to gain results after a technical process. This phase is known in Netherlands as blueprint planning and is also called rational comprehensive planning (De Roo & Voogd, 2007, p. 15, Sandercock, 1998). Plans contained a desired image of the future of a place and the measures that had to be taken in order to achieve this situation: 'place making.' Planners worked through the idea that they could shape society by using scientific research as a justification for spatial planning, which was visible in aspirations on efficiency and zoning (Irving, 1993). Because of their expertise, they could decide what was best for citizens. After the Second World War, this resulted in quick realisation a huge number of building projects that were necessary in order to replace damaged buildings. The welfare state also took care of developing healthcare, education, social welfare and infrastructure.

However, criticism on the all-controlling government rose because of the lack of democratic legitimacy in the top-down system. The modernist way of planning was not perfect: rational models weren't always right and not all actors behaved like predictable economic men. Moreover, in the phase of turning knowledge into action, planners made choices that contained value judgements (Faludi, 1987). Also, differences between government sectors and levels generated friction between policy programmes, for instance discrepancy between local and national government or among social-oriented and infrastructure-oriented agencies. Still, places were mostly managed and constructed, in terms of resources and power, through public management. Aligned with trends in society, in the 1960s groups of citizens started protesting against undemocratic, capitalist development projects. Without explicitly mentioning the term quality of place, this is the beginning of attention of the public for quality of place aspects in spatial planning. This is marked by the publication of Jane Jacobs's book in 1961, which sets forth these criticisms on modernist planning and indicates qualities, mainly focused on diversity, of successful places. In paragraph 3.3, the role of diversity and the other quality of place elements will be further addressed.

The situation in which the government acted as a manager of the city who attempted to control urban processes lasted until the 1980s. However, through economic recession, decrease in funding and public criticism on this role, it became clear that the government needed to reposition itself. Instead of *managerialism*, a shift to *entrepreneurialism* was needed (Harvey, 1989). In entrepreneurialism, the government should act more as a private business: strive for efficiency, introduce competitiveness in the public sector and create local alliances in which the government isn't the manager, but an actor among other actors. According to Harvey, partnerships with the private sector are inevitable in order to stop the government from being counterproductive to society. Also, realisation of the fact that not all urban processes are manageable had to take place. The government could not control the whole world by itself as it is too complex and unpredictable. In public administration, a shift from theories in which the government is seen as a structural and cognitive unity to a network-based approach in which groups are more important is visible (Teisman et al, 2009, pp. 18-23). In some cases, even whole government functions should be transferred to the private sector, as happened with for instance public transportation and healthcare. As much as it was financially inevitable that the government's controlling role changed, it was also expected that the economy and the quality of life in cities would improve. Place making shifted from building new areas top-down to facilitating private sector initiative and economic growth.

In science in general, the shift from managerialism to entrepreneurialism is part of the transition from a modern to a postmodern society. Three major socio-cultural factors created a change of direction in cities and regions, with a resulting inevitable change away from a modernist planning

practice (Sandercock, 1998). The first factor of change is the age of migration, indicating the excessive growth of international migration in the second half of the twentieth century. Migration has become highly influential on the cultural diversity and economy in places, creating cities that are the sites of struggle over complicated claims on space and resources: the 'landscape of post modernity.' Throughout modernity, the planner's role was reactionary: regulating who could use what part of space for which purpose. The age of migration causes a different approach because of the increased diversity and decreased predictability of the behaviour of these groups and the resulting claims on space. The second factor is the age of post colonialism and the rise of indigenous people, who started reclaiming their lands which had become unusable through land use planning and private property rights. In a modernist planning system, the values that indigenous people attributed to their lands were incommensurable with the way that planners operated: the monetary value of development projects could not be aligned with the spiritual and use value of places. This is a result of the fact that the system had been created by white men, criticism of which also led to the third factor of change: the age of feminism. The dominant male perspective in urban planning was challenged in the 1970s by advocating women's needs throughout architecture (i.e. a focus on safety or childcare). Later on, after female planners had become more common, criticism remained: planning professionals, whether men or women, were still represented by a white, heterosexual, middle-class community. The last challenge to the modern planning system became to include formerly excluded people into the system.

The shift to post modernity in urban management and planning is described by Healey as the *collaborative approach* (Healey, 1998). The collaborative approach coincides with the shifting of responsibilities between public and private parties in which both sides accept that the involvement of others is necessary in order to achieve their goals. Even though management takes place through multiactor cooperation, parties are focused on their own interests. However, the collaborative approach assumes that collective action will automatically resist actors that take part in economic exploitation or environmental degradation and maximise the possibilities for creating conditions for sustainable economic, social and environmental development. Though this may sound idealistic, it can be argued that even though the government doesn't hold all the resources, it is still capable of selecting cooperation partners that operate in the best way for the public interest. Healey outlines five concepts that are new in the collaborative approach, which will be discussed here briefly in order to set forth the implications for urban planning.

2.2 Institutional capacity

The first concept of the collaborative approach is an integrative view on place making instead of sectoral separation between different public actors. Especially in local government, a shift away from separation is visible, making way for attitudes that acknowledge the relation between economic and social life in places and the environment that surrounds it. The second concept expands the integrative method by stating that the different stakeholders should not only collaborate in projects, but should also be jointly responsible for the coordinating strategy. This would ease the cooperation between agencies on the project scale. Thirdly, it is obvious that the number of stakeholders in public policy in general and urban planning specific rises sharply with the collaborative approach. Of these stakeholders, citizens are more involved than in the past by actively involving groups of people into the planning process and providing more space for bottom-up initiatives. As stated before, private companies also become more involved in the planning process, either by their own initiative or because public parties realise that private sector involvement is necessary. The fourth concept in the collaborative approach concerns local knowledge. Public officials often lack specific knowledge on places, don't know about common problems that occur and their possible solutions. Therefore using citizens' practical experience and reference frames on places can help to formulate and tackle problems, though extracting local knowledge and translating it into policy is a difficult task. This is covered in the last concept: relational resources. Sharing information, knowledge and understanding between citizens, businesses and government is crucial in order to succeed in collaborative planning. Miscommunication between actors can be the result of differences in language between the actors or deliberate opportunistic behaviour, but it can either way be seen as self-interest, which harms the process. However, when a network of relational resources is operating, local knowledge can be transferred, actors can be mobilised quickly and support for policy interventions grows.

It has been argued that improving places through collaborative planning is the natural response to the undemocratic, top-down planning of the past. By involving local, place-focused stakeholders, coalitions can be formed that take care of improving places. Whether this is successful depends on the institutional capacity of the coalition. The five concepts of the collaborative approach mentioned above are combined into three crucial elements in urban planning that determine institutional capacity: knowledge resources, relational resources and its capacity for mobilisation (Healey, 1998).

- Knowledge resources are generated by both local knowledge and theoretical knowledge. As explained, local knowledge is essential for planning processes. Local knowledge is generated through years of practical experience in a place and the values that people attach to it. Discrepancies in local knowledge can therefore occur: social groups each use their own reference frame to construct local knowledge, which can cause obstacles when places are framed differently. Though the 'local' in local knowledge might seem to state otherwise, experts' and professionals' knowledge, such as planners, politicians and project developers, is considered to be part of it too. The experts' total knowledge base is formed through both local knowledge and more formalised, theoretical knowledge.
- Knowledge resources are necessary for planning projects, but in itself won't lead to results. Two other two elements are necessary, which are responsible for the first word of the collaborative approach. First, relational resources deal with the presence of networks of stakeholders and the ways that actors communicate. As a reason why economic growth in certain regions prevails over others, relational resources within places are often mentioned (Atzema et al, 2002, p. 150). Sharing a common way of communicating within a network enables the available knowledge to be used.
- The last main element that determines institutional capacity is the capacity for mobilisation, which once again results from relational resources. Just having the relational or knowledge resources isn't enough: action will only take place when it is possible to mobilise the involved

stakeholders. Organising an information meeting for citizens on a planning project is a start, but mobilisation is only taking place when people show up and actually take part in the process. This is also valid for businesses; collaboration requires relational resources in terms of knowing the right people and organisations, but also capacity for mobilisation in terms of involving them in the process.

A true collaborative approach is only reached when all three institutional dimensions are in place, which makes it possible to think and act in similar ways. Conflicts of interests can always occur, but when institutional capacity is maximised, solutions can be worked out without resulting into battle. This is in accordance with the goal of urban planning: dealing with conflicting claims on scarce land with many stakeholders and complex environmental relations (De Roo & Voogd, 2007, p. 13). As has been stated, institutional capacity can be influenced by public policy (Wilson, 1997). By providing top-down incentives for social learning, planning processes can be eased in terms of conflict development, creating a better result and saving valuable time and resources. However, creating institutional capacity is a process that needs to develop locally and requires a long period of time in order to generate mutual trust and understanding. Because of the relatively short history of urban planning in policy and practice and the even more recent change to a more collaborative approach, institutional capacity hasn't developed in many places. Still, the underlying concept of institutional capacity is clear: planning is a social process in which discourse and communication are shaped by the social meanings that actors give it. Legitimacy is therefore shaped by social practices (Healey, 1998). This is a constructivist worldview; the collaborative approach and its main principle of institutional capacity are consequently theoretically based on constructivist thoughts.

In constructivism, shaping and giving meaning to products is a result of social processes, which in turn are shaped by the way that the stakeholders in the process speak and act (Rosen, 2001). Planning processes are therefore highly constructivist and subject to constant change because of the variety of stakeholders and interests. The government is part of this process as a stakeholder, but also performs a managing role in constructing a shared reality which leads to collective action. In planning practice, this approach has become more visible over the past decade through more intense cooperation, which will be looked into more deeply in chapter 5.

Through constructivism, public policy is reshaped and reformulated continuously. As stated, planning has been the subject of policy changes over time. Under the collaborative approach, this results in the current state of planning practice:

'*This recasts the new role of urban planning: as an active social process through which the governance power to regulate and to distribute resources which affect the qualities of places is reshaped by a collaborative reflection on the ideas, systems of meaning, and ways of acting which have been driving place making in particular places in the past, and a mobilization of transformative potential to make a difference to place making in the future*' (Healey, 1998).

Area (re)development, as a process of place making, consequently shifted to an active social process of which management is carried out by a coalition of partners. Planning systems provide an arena where the influence of different policy areas on space is discussed (Healey, 1999). The shift to a more collaborative approach, both between different policy areas and between public and private actors has been clearly noticed in public policy and urban planning so far. Now, it is time to focus more onto the policy context that is relevant for this research: transport planning and railway station redevelopment in particular.

2.3 Transport planning

So far, it has become clear that public policy has become more integrative, the number of stakeholders has risen and responsibilities have shifted from public to private. This thesis focuses on the redevelopment of railway stations. In order to find out about the consequences of the changing government system for railway stations, attention will now be given to the evolution of transport planning, which is the policy environment of the original development of railway stations. As transport planning is highly dependent of the planning system in general, changes in the overall planning system cause changes in transport planning and therefore effect railway station (re)development.

In the time of managerialism, transport planning was the result of a technocratic process: transportation and population models calculated the expected demand (for road lanes or train seats), after which the transport system was built to meet this. Responsibility for providing enough capacity was entirely a public matter. However, the supply-driven model proved not to be working and problems on capacity and congestion increased. Building roads with higher carrying capacity increased the number of total movements and, opposed to the expectations, hardly led lead to a decrease in traffic density on smaller roads (Marvin & Guy, 1999). In table 2.1, this technocratic transport planning is visible as *old logic*. Policy was focused on the transport system, without taking other factors and policy areas into account. Social relations were limited to contacts between the main actors: governments, contractors and public transport companies. By applying standardised knowledge, large-scale, supply-driven infrastructural interventions were carried out. The main goal of this system was developing a transport network that is as extensive as possible, in which accessibility is maximised and travel time is minimised.

Table 2.1 Changing paradigms in transport planning

Feature	Old logic	New logic
Policy context	Sectoral	Interconnected
Social relations	Hermetic	Discursive
Technology	Hard supply-oriented	Soft demand-oriented
Knowledge	Standardised	Tailored
Space and time	Homogeneous	Customised

Source: Marvin & Guy (1999)

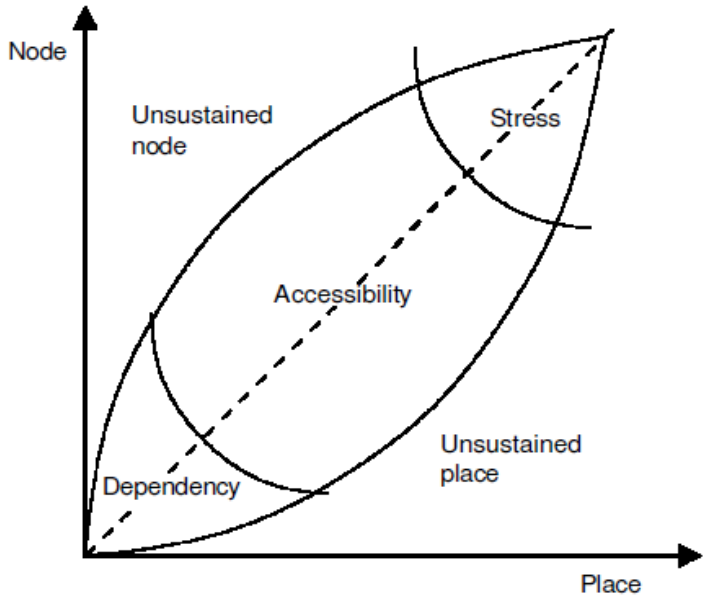
In recent years, it has become clear that old logic assumptions are no longer sustainable and don't provide solutions to transportation problems. In at time of entrepreneurialism, a shift to *new logic* is therefore inevitable in order to deal with societal and political changes. Integral thinking that takes external factors into account starts to replace old sectoral planning. Because of the heterogenisation of society, a standard approach cannot be applied and tailored solutions have to be thought of. Of course, the goal of in transport planning is still to maximise accessibility and minimise travel time. However, this cannot be seen as separate from other policy goals on the economy, society and environment, which makes extending the transport network to a maximum no longer viable.

Concerning the redevelopment of railway stations, some aspects of the new logic that have not yet been covered in the previous paragraphs deserve further explanation. The interconnected policy context has been discussed using ideas on managerialism and the collaborative approach. Considering the fact that the largest part of the Dutch railway network was constructed before the 1980s and therefore the station areas were created under managerialism, redevelopment isn't just an architectural challenge, but now has to deal with a whole different approach on public and private roles. Therefore, when looking at recent redevelopment projects, seeing the government as an actor among others is inevitable and the way that partnerships are constructed are key in the analysis of case studies. In railway infrastructure development projects, different methods are currently applied in some projects, such as public private partnership in the high speed railway line between Amsterdam and the Belgian border (Koppenjan & Leijten, 2007). Part two of this research will provide more insight into current redevelopment practice and the current state of the shift to entrepreneurialism. Social relations evolved as well and will be briefly discussed here. Space and time are highly important aspects in transportation hub (re)development and will therefore looked into building on the node place model. Technology will not be addressed explicitly here, but its role is visible because of the fact that technological process in the railway sector led to the arrival of high speed railway lines. The fact that knowledge has become less standardised and more place-specific has already been explained in the previous paragraph.

The rise in prosperity, accompanied by globalisation and growing mobility starting from the second half of the 20th century has initiated large growth in immigration and individualisation. In Dutch society, collectivism in which a small number of social (religious) groups shared a similar lifestyle decreased to give way to individual autonomy. Communal life itself remained, but organisation of activities became organised by changing networks and the locations of social actions shifted from predictable single locations to more diffuse places. As a result, social settings diverged and predictability of behaviour and categorisation of social groups is more problematic. Individuals obtained bigger possibilities to ignore certain people and get in touch with other people over greater distances than before. Results of this move to *global network cosmopolitanism* are visible in public policy (see previous paragraphs), but concerning infrastructure planning the main consequence is the decrease in predictability of behaviour and therefore rise of uncertainty in demand of transportation and supplementary functions (Boelens, 2009, pp. 24-25).

On the changing perspective on space and time, the node place model constructs the framework in which railway station redevelopment is seen (Bertolini, 1996). Bertolini explains that railway stations are dual locations: they are both nodes within a transportation network and places within a city. Figure 2.2 shows a model in which each transportation hub can be positioned. The node value covers degree of accessibility (the number of connections, the speed in which destinations can be reached) and therefore the potential for human interaction and is placed on the y-axis. The x-axis shows the place value: the intensity and diversity of activities in the area and therefore the realisation of human interaction (Bertolini, 1999). Hubs where activities and accessibility are out of balance are unsustained, but even when balance is present, conflicts can prevail because of claims on scarce land (stress) or the lack of demand for urban activities (dependency). By performing multi-criteria analysis, the (re)development potential of station areas can be determined, for instance an unsustained node can be improved by adding different functions.

Figure 2.2 The node place model



Source: Bertolini (1999)

Node and place variables are subject of rapid technological and societal changes: high speed railways bring cities closer together and the area around the station is an indicator of several transitions, for instance in use of public space and differences in commercial activity. Therefore, when either planning infrastructure itself or the area around the station, changes in the other factor have to be taken into account. This is emphasised by Struiksma & Tillema (2009) who researched the focus areas within infrastructure planning and general spatial planning over the past decades. When the downsides of the rapidly expanded infrastructure system became visible, first extra attention was given to internal integration in the transportation sector: the node-value. Problems in reduced accessibility should be solved within the infrastructure system, for instance by focusing on connecting existing transportation networks and multimodality. However, a shift to external integration also occurred, in which infrastructure planning became oriented on general spatial planning. This can be seen as a development from a 'line-oriented' emphasis on infrastructure planning to an 'area-oriented' emphasis, similar to the shift to integral area development that was visible at the time in public policy. In this area-oriented approach, project-specific characteristics (such as the area around the hub) gain importance and infrastructure planning is combined with other functions such as housing and offices. Concerning the node-place model, the line-oriented developments were focused on the node value of infrastructure and the turn to area-oriented development focused on improving both node and place values integrally.

The shift in public policy to governance and entrepreneurialism led to a further orientation on external developments around infrastructure. Integral area-oriented development of infrastructure should take place together with private parties, who can be challenged to not just maximise their own profits, but also achieve societal goals (Zeeuw & Licher, 2008). Concerning transportation hubs and area development, ideas on transit oriented development started to emerge in literature. While there are many different definitions used, all see transit oriented development as development of high quality areas around transportation hubs, including several different functions (Cervero, 2004, pp. 5-8). By concentrating urban land use around railway stations, the built environment in a place is optimised for pedestrians and public transportation (Verhoeven & Van Velsen, 2010, p. 6). This coincides with the shift to a more integral approach, in this case seeing the redevelopment of railway stations as a joint project with its surroundings. Chapter 5 deals with current redevelopment practice, which includes the development of the adjacent area.

2.4 Conclusion

In this chapter, the development of policy context of urban planning in the past century has been explored. First, the fact that urban planning is an extraordinary policy subject has been explained, using the term wicked problems for the type of issues that planning deals with. Public policy is always the subject of debate and criticism, but the nature of planning makes even more prone to changes in society and politics. Urban planning started as a means to an end: providing affordable housing for all. Later on, planning became a tool that could not only influence the physical layout of places, but also be used to achieve goals outside of this realm, at the social and economical level. This was initially carried out by means of blueprint planning, but after much criticism on the general role of the welfare state a shift towards a different method was needed. A new role was required for the government: as an actor among others that uses a more entrepreneurial vision and creates space for private development under the collaborative approach.

The success of a collaborative approach depends on the institutional capacity that is present, consisting of knowledge resources, relational resources and the capacity for mobilisation. These three elements are necessary for tackling issues in a joint urban planning approach, which doesn't only include maximising knowledge but emphasises dealing with several stakeholders and generating joint results. This view on urban planning results from a constructivist worldview, which stresses that the meaning that is given to planning issues is shaped by social processes among the involved actors.

The shift that was visible in general public policy has had its effects on transport planning, in which sectoral planning has been replaced by a more integral approach of seeing the effects of transportation as more than just infrastructural. This is confirmed by recent railway station projects, in which the surrounding area and wider policy context are highly important. Societal changes are influential on the use of stations: high speed railways have brought cities closer together in terms of travel time and demands on functions within the hub and public space have changed. The literature on transport planning covers the way that has been dealt with these changes and proposes new ways for dealing with a less predictable society. For this research, it is important that urban planning practice is moving towards a more collaborative approach, in which the government is looking for different ways to involve other actors in several stages of the process. In the empirical part, the actual practice of redevelopment and ways of dealing with quality of place will be researched.

Chapter 3 Quality of place

Documents that are drawn up by urban planners, urban designers and architects often contain an impression of the final result of the (re)construction process (see figure 3.1 for an example). The rules of marketing apply here in order to 'sell' the vision as thought of: the weather is good, there are different kinds of people around and the buildings are clean and bright. Of course, the weather is difficult to manage, but the successful implementation of the other aspects is suggested to be the result of the planning process. However, when walking around through any city, it can be seen that these results are often not accomplished. Newly (re)developed places don't always bring along the expected rise in visitors, which is in contrast with one of Jacobs's most well-known ideas, that places are only successful when they are being visited and used by people, preferably at all times of day (Martin, 2006).

Figure 3.1 Artist impression for a redevelopment project: the Wharf, Washington D.C.

Source: The Atlantic Cities (2012)

Vinex projects ghettos of the future

In 1991, the Dutch ministry of Housing, Spatial Planning and the Environment issued the Fourth Act on Spatial Planning Extra (Vinex), in which a number of possible locations for housing development are set forth. This resulted in many new neighbourhoods at the edge of existing cities, meant for above-average income families. However, sociologist Frits Spangenberg predicts that the Vinex neighbourhoods will become twenty-first century ghettos. According to him, the planners succeeded in attracting a mix of different people, but failed to provide them with adept facilities. The locations are designed for families with small children, which leads to a lack of things to do for adolescents. Being bored, this leads to vandalism and nuisance. This is one of the symptoms of the main deficit: the lack of integration between different functions in the neighbourhoods. Residential, business and leisure areas are planned separately, resulting in lack of amenities and social tension. According to Spangenberg, investments in the Vinex areas are necessary in order to prevent the higher educated residents to move away and the neighbourhoods of deprivation.
Source: Algemeen Dagblad (2012)

The box above is just one example of an aspect of quality of place that affects our daily lives. In this chapter, first a theoretical framework on the concept will be created. The framework will expose how ideas on urban and spatial quality have been discussed throughout the years. Starting with location theory, it becomes visible that location preferences of firms have shifted to quality of life elements that their employees consider important. Quality of life is then converted to location specifics using the concept of quality of place. Quality of place and the elements that it consists of are explained afterwards. Also, criticism on the quality of place is given, in order to be aware of its limitations and the usefulness of it for this research.

By addressing quality of place and issues that come up when dealing with it, this chapter serves two goals. Firstly, it is the theoretical base of quality of place, answering the first sub question:

How has attention for quality of place evolved over time?

Secondly, by addressing the elements of which quality of place consists it creates a base for the third and fourth sub question, which are further covered in chapter six.

3.1 Location theory

In order to understand the importance of quality of place for the urban economy and peoples' well-being, it is necessary to first take a look at location theory, starting with the very base of classical economics. The earliest research on location theory is performed on the location of firms and specific industries, but it will be demonstrated that it is inevitable to also take civilians' behaviour and the resulting residential and consumption patterns into account as they are highly influenced by quality of place. The shift in location theory from the focus on firms to the focus on people will be clear from this, resulting in a growing importance of quality of place aspects for the economy in general and in planning.

Location theory originates from classical economics, in which David Ricardo introduced the issue of distributive shares in the early nineteenth century. The distributive shares consist of rent, wages and profit, and are the shares that landlords, labourers and capitalists received from agricultural production (Rima, 2009, pp. 145-167). In a situation where there is an abundance of land, land rent does not occur. However, when the population grows, the demand for land rises and production will start to appear on inferior lands. As long as the rate of profit of the crops that is grown on the land remains high enough, capital can be accumulated and production will be expanded. Therefore more inferior soils will be used and the absolute share of land rent rises, even though labour costs are higher on these lands. The share of labour increases in favour of the share of profits, which will keep occurring until there is no profitable land left. Rent will therefore always be paid for lands that produce food; the height of it depends on the demand for the product. Land rent is therefore a differential surplus, which is not the cause of the value of a product, but the result of it: an increase in price of the product will increase the rent of the land, not the other way around.

The distributive shares show that new agricultural lands will be used as long as there is sufficient demand for a product. However, location patterns were only attributed to the fertility of the land and no distinction between different crops was made. The role of distance for land use patterns was added by Von Thünen, who added input movement and marketing costs as a factor (Cox & Sibco, 1972). Though not a 'real' location theory (all lands are used for agriculture), his theory shows why farmers choose to cultivate a certain species of crops. Land that is located further away from the farmers' residence will have diminishing returns as a result of the loss of labour time that is spent travelling. Therefore, labour-intensive produce will be grown on land that is located adjacent to a village. The role of travelling time as a location factor is called input movement costs. The other type of costs is marketing costs, which are similar to Ricardo's ideas on the fertility of land, but this time variations in rent are also caused by the distance of the land to the market. As a result, land rent will be highest on the fields that are located closest to the village. Farmers' profits are the same everywhere because they bid against each other for the locations closest to the market, resulting in a share of the farmers' profits for the land owners (Alonso, 1960).

During the industrial revolution the share of agriculture in the economy of towns diminished radically in favour of the industrial sector, which caused Alfred Weber to question the location of industrial firms (Atzema et al, 2006, pp. 59-65). Variations in type of industrial firm location were now caused by different factors: the accessibility to the resources that were used, which varied across the land. Once again transport costs determined location patterns: when the resource's mass would decline during production, factories would locate as close to the resource as possible. Of course, industries didn't depend on just one resource; therefore equations were made in which a location with the lowest total costs could be calculated. Weber extended classical location theory by introducing other factors into the same model, such as labour costs and economies of agglomeration (Moses, 1958). This explained industrial firms' locations nearby cities (for labour-intensive products or using mass

retaining resources) and nearby resources (for labour-extensive products or mass losing resources). Economies of agglomeration could be secured when the local economy specialised in a certain product, causing standardised processes in related companies and therefore cost reduction.

Some of the earliest thoughts on land-use patterns and the introduction of transport, labour and agglomeration costs as factors of influence have now been introduced. However, as straight-forward as they seem, remarks have to be made on the explanatory value of the models, most of which deal with the matter of complexity and of which its assumptions are seen in all early economic works: entrepreneurs have all necessary information, there is only one marketplace, the revenues for the crops are the same everywhere, transport costs are standardised and not affected by infrastructure, there is an unlimited amount of labour available and the market operates by pure competition. In order to overcome some of these deficits, neoclassical location theory developed models which contained more room for nuance.

Instead of the single focus on minimising costs in classical theory, neoclassical theory also focused on maximising profits. Expansion of the market to places that are situated further away could cause higher profits when the increase in transport costs would be compensated by economies of scale that occurred because of a higher volume of production (Atzema et al, 2006, pp. 69-70). Also, the substitution of input factors gained attention: extra input of labour can cause a reduction of resources and vice versa. Finally, neoclassic writers deal with different markets and stress that entrepreneurs have to deal with other market forms and respond to their competitors' behaviour. Though many generalisations and presuppositions were at the base of these theories, it was clear that firms' location decisions were influenced by a lot more than just transport and labour costs. However, neoclassical theory still sees agents as so-called *economic men*, who possess all necessary information and act in such way that profits are maximised (Sen, 1977). Entrepreneurs have to deal with uncertainty about future conditions and risks and obtaining all information is impossible. Therefore, agents will therefore always try to achieve a satisfactory result, which doesn't necessarily lead to the maximum profit (Simon, 1955). A 'bounded rational choice' is made: the most optimal decision within the entrepreneur's bounded rationality.

It is clear that neoclassical theory starts to discuss complexity in location theory by adding several other factors and conditions and that behavioural theorists such as Simon stress the importance of non-financial reasons in decision making. However, agglomeration economies are still highly important, which is confirmed by the role of cities in urban development over the past two centuries: because of advantages in agglomeration effects cities have grown immensely in size, inhabitants and number of firms. Factor substitution took place: farms and factories became increasingly mechanized causing more products to be produced and less people to be needed to work on the fields or machines (Brittanica Encyclopedia, 2012). However, the gigantic increase in cities' population had severe downsides; the workers' bad living conditions concerning poverty and public health were highly visible in the streets. The results of this will be set forth in the next paragraphs: quality of life (2.2) became a topic of discussion and quality of place elements (2.3) became important in planning projects.

Cities differ in the extent of expansion and economic output. This can partially be explained by location theory: location near resources or labour market caused specialisation in certain goods or services. In the Netherlands, Amsterdam and Rotterdam thrived as port cities (located close to the 'resource' water), other cities such Eindhoven and Enschede specialised in manufacturing because of the availability of labour. The evolution of cities was therefore influenced by the industries that were present and comparative advantages could enhance this process. Ricardo thought of this matter: in order to achieve the highest economic output, cities, regions or even countries will specialise in goods in which the comparative cost advantage is the greatest (Rima, 2009, p. 167). Myrdal explains that locations with advantages in production increase their economic strength because of cumulative

causation effects (Atzema et al, 2006, pp. 118-123). In competitive economic regions, companies can benefit from advantages in production scale because of the larger market size. This causes a need for more labour and establishment of associated companies, which once again improves the local conditions. The opposite development is also a possibility: regions that lag behind because of lack of production facilities can deteriorate economically and decrease in population. Of course, exceptions to the theory of cumulative causation exist, but the most important issue in relation to quality of place is that in many cases cumulative effects are visible and the attention for quality of place can be historically embedded. Throughout economic change new sectors become dominant and others become obsolete. According to the economist Arthur, this is partially due to specific location factors (as defined in classical theory) and partially through coincidence by small historical events (Boschma et al, pp. 102-106). When industries become more dominant, the environment gets influenced accordingly. This is clearly visible in the London Docklands, an area that was developed for port use in a time when the naval sector was highly dominant and got redeveloped into office space in a period of excessive growth in the banking sector (Butler, 2007). Innovations in the automobile and transport industries created new opportunities for businesses to locate outside of the existing centre. Other location factors change as well, both through innovation and shifts in dominant industries. For instance, when dominant sectors become more knowledge-intensive, the demand for highly educated employees rises. All of these developments influence inner-city locations and are linked to transportation and economic competitiveness.

Glaeser et al conclude that the advantages and disadvantages of inner-city locations are shifting: instead of an advantage for production and a disadvantage for consumption in the city, now there is an advantage for consumption and a disadvantage for production (Glaeser et al, 2001). The advantages in transport costs that cities once had for manufacturing have now vanished, but there is still a need for density. This time, it is because of the inhabitants of the city, who demand a high level of interaction in order to succeed in their personal and professional lives. With the prospect of rising incomes of urban dwellers, the demand for quality of the city will increase too. Consumers are now the driving force behind economic competitiveness of cities. This is where Richard Florida's ideas come into place: this new type of consumers, the creative class, is responsible for economic growth. Florida's works on the creative sector and its importance for the economy have gained huge popularity over the past few years (Peck, 2005). In classical and neoclassical theory, firms and industries drove regional innovation and growth, which caused the focus on location and clustering theory. Resulting from this, public policy attempted to create growth by offering firms incentives to settle in the region. However, now people have become the most dominant economic power, therefore Florida calls for a shift in theory and public policy (Florida, 2005, p. 27).

Two major differences between (neo)classical theory and the works on the creative class now appear. First, the reasons for the appearance of clusters of firms in regions. Clusters are '*geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries and associated institutions in a particular field that compete but also cooperate*'(Porter, 2000). The neo-classicist Marshall explained the existence of these 'industrial districts' by the availability of labour, the growth of supporting trades and the development of a division of labour between firms in the region (Asheim et al, 2006, p. 5). According to Florida, the most important reason for the clustering of firms is the concentration of a specialised labour type: talented people who can initiate innovation and economic growth (Florida, 2005, p. 29). Competitive advantages are gained by the companies that locate near the creative class and are able to mobilise talent out of this concentration of people. Cities that accommodate the most diverse and creative people are the most economically competitive. The creative class is highly mobile and consists of workers in engineering, design, arts, education and entertainment, but also related sectors such as finance, law and health care. Florida performed qualitative and quantitative research on why people locate in certain places, and found out that they didn't follow jobs, but moved to places that were inclusive and diverse. Their residential location is decided by their own opinion on where they want to live, which is based on

attractive city centres and nice neighbourhoods. As a result, it is not a prerequisite that clustering of firms only takes place in attractive and diverse cities, but cumulative causation in both nice places and creative inhabitants can stimulate the existence of innovative clusters (Gottlieb, 1994, in Salvesen & Renski, 2003).

The second difference is the main reason for regional economic growth. Classical and neoclassical theory focused on traditional factors such as location near resources or transportation links. The most competitive regions are the regions that use these location advantages most efficiently and public policy tries on influence this by improving these factors, for instance by constructing infrastructure networks. However, the human capital theory of regional development sees the inhabitants as the driving force behind economic growth (Florida, 2005, pp. 32-45). The human capital theory is based on Jane Jacobs's ideas that cities attract creative people, who are able to initiate economic growth. Therefore economic growth will be higher in places that accommodate highly educated people. He concludes from this that it is not human capital in general, but creative people in specific that drive growth. These people prefer innovative, diverse and tolerant environments. The details of these location preferences will be discussed in the next paragraphs, but it is now evident where quality of place comes into place: in order be highly competitive, it is necessary to attract and preserve the creative class in a city and therefore the attractiveness of places should be maximized. Quality of life factors (which are a part of quality of place elements, see 3.2) are more important to knowledge workers than wage rates (Morgan & Sayer, 1988, in Salvesen & Renski, 2001). These workers also reinforce quality of life in a location by investing in the area and using local facilities.

In this paragraph, it has become clear that location theory has become more complicated over time, taking more factors into account which are more difficult to control or measure. Classic location factors seem to matter much less than before, and the competitiveness of regions is highly influenced by the inhabitants. Now the connection between the location of firms, their employees, regional competitiveness, economic growth and the first ideas on quality of life is acknowledged, it is necessary to explore the last mentioned concept in order to gain further knowledge on the meaning, contents and implications. It is also evident that the concepts of quality of life and quality of place are both used in similar research areas. Therefore it is necessary to explore both intrinsically and decide which elements are relevant for this thesis.

3.2 Quality of life

In Dutch literature and practice, 'spatial quality' (*ruimtelijke kwaliteit*) is a common concept. However, in international research the definition as such is hardly used (Janssen – Jansen et al, 2009, pp. 4-5). Though not explicitly mentioned, elements that can be understood as part of 'spatial quality' are being researched under the names of 'landscape quality' or 'environmental quality,' which are seen as part of 'quality of life.' In order to understand quality of place and its relevance, it is first necessary to understand what quality of life encompasses and what the relationship between the concepts is.

The way people experience the quality of their lives affects daily decision making. However, the factors that influence quality of life vary between good and bad times. To understand this, we will use Maslow's basic need hierarchy (Maslow, 1970, pp. 15-31). A person's first needs will be physiological, such as food and shelter, and all of this person's capacities will be directed to solving problems concerning these needs. Only when the physiological needs are satisfied, higher needs emerge concerning safety and this process will continue moving onto social needs. This is visible in the attention that quality of life gains in politics and media: during bad times, the concept contains basic necessities such as the availability of housing, jobs and food (Andrews, 2001). When the economy grows, a greater set of factors is added such as recreation, access to facilities, a nice environment and a satisfying professional and personal life. Moreover, during growth places can change rapidly because of regeneration of neighbourhoods, suburbanisation and expansion of infrastructure (Cullingworth & Nadin, 2006). Local quality of life conditions can therefore be seen as indicators of balance in the urban system (Andrews, 2001). Achieving economical, social and environmental goals at the same time poses a difficult challenge, but when economical progress is made, attention is given to the other quality of life factors and the need for a healthy equilibrium is stressed.

Salvensen and Renski researched quality of life factors that influence firms' location behaviour (Salvensen & Renski, 2003). They conclude that quality of life is becoming increasingly important in location decisions, even though the concept is 'inherently vague and subjective.' Quality of life consists of traditional economic factors such as employment opportunities and cost of living and local amenity factors such as quality of schools and cultural opportunities. There is no agreement on which factors have the greatest consequences in terms of economic development. This is just one of the works on quality of life that addresses the difficulty of the concept and the subjectivity of its measures. There is no general agreement on which indicators of quality of life should be used (Bayless & Bayless, 1982). Even the base of the concept, the definition, is challenged. Over 100 different definitions have been used in research on quality of life (Schalock, 2000). Table 3.1 offers an overview of different definition types from different points of view.

Table 3.1 Types of definitions of quality of life (QOL)

Global definitions	The most common, general, type of definition – usually say little about the possible components of QOL. Usually incorporate ideas of satisfaction/dissatisfaction or happiness/unhappiness.
Component definitions	Break down QOL into a series of components, dimensions or domains, or identify characteristics deemed essential to any evaluation of QOL.
Non-research specific	Identify a number of dimensions of general QOL, but may not necessarily claim to cover every possible dimension.
Research specific	Explicitly tailored to meet the objectives of a specific piece of research. May therefore overlook or exclude certain dimensions of QOL considered less relevant to the research aims.
Focused definitions	Refer only to one or a small number of the dimensions of QOL.
Explicit	Focus on a small number of dimensions of QOL considered essential to QOL, but does so explicitly.
Implicit	Focus on one or two dimensions of the broader concept of QOL, but implicitly, without making this clear.
Combination definitions	Global definitions that also specify dimensions.

Based on: Galloway (2006)

Global definitions are very general and try to contain all components of quality of life. In order to get a grip on the concept, component definitions, which break it down into key characteristics, can be used. Focused definitions only use one or several dimensions that are relevant for that research. In this research, the definition of quality of life as stated by Andrews is used: '*[...] a feeling of well-being, fulfilment or satisfaction on the part of residents of or visitors to that place*' (Andrews, 2001). This broad definition therefore encompasses both measurable, statistically challengeable factors, but also less tangible factors that are responsible for a person's well-being. It is therefore a global definition. Later on, the concept of quality of place will be introduced. Quality of place hereby uses a combination definition, which breaks quality of life down into series of components and researches the dimensions that are essential as location factors. This is done explicitly, meaning that it is explained which dimensions are seen as essential for quality of place.

Resulting from the different definitions and indicators of quality of life, it is inevitable that problems in research on the concept appear. Five main problems are identified (Wish, 19860. Firstly, there is the geographical component. When using statistical data, comparisons between locations are difficult because not all indicators are measured in different places and when they are, alterations in measurement take place. Moreover, quality of life varies within a location (i.e. a city) just as much as it varies among other locations. Therefore comparability is highly difficult. Differences in local circumstances, preferences and types of question vary too much to result in a valid basis for building a comprehensive, valid mega model (Andrews, 2001). This leads to the third problem: components, indices and indicators are not generally agreed upon. Because of the previous difficulties, it is also extremely difficult to differentiate how quality of life varies over time. Last of all is the problem of salience. Often, the various quality of life components are not weighed, and when they are, a rationale of the weighting scheme often lacks. In brief, these are the most important shortcomings of existing quality of life research. Because this research focuses on quality of place, the problems in research on that concept will be set forth later on. First, the link between quality of life and quality of place needs to be addressed.

3.3 Quality of place

'[...] quality of place is a useful concept because it connects the competitiveness of the urban economy to a quite sophisticated perspective on urban development and because it is broader and at the same time more specific than comparable concepts such as quality of life' (Trip, 2007, p. 35).

The results of research of quality of life stress the importance of taking softer, less tangible values into account when looking at location decisions and economic output. However, the criteria used in previous research are still mainly focused on the goal of each specific research (Galloway, 2006). In order to generate a view on location features that influence social and economic processes, the concept of quality of place is introduced. Where quality of life is defined as a feeling, quality of place deals with the factors in the environment that influence this feeling. Quality of place is therefore *'an aggregate measure of the factors in the external environment that contribute to quality of life'* (Andrews, 2001). Now the topic becomes interesting for planners, politicians and policy makers: what effects can be achieved if factors in the external environment are adapted? These alterations of places and the organisation behind the process is the base of spatial planning (Spit & Zoete, 2006, p. 16). Therefore, successful quality of place analysis addresses the link between the objective environment and human perceptions of that environment, and perceptions of the environment with perceptions of well-being (Wish, 1986).

Quality of place is a container concept for all the factors that make a location attractive and is therefore more specific than quality of life. As stated, the elements of quality of life and therefore quality of place can vary between different researches. To illustrate this, Trip addresses the ambiguity of quality of place and the difficulty in defining the concept:

'The essence of quality of place seems to be found in the qualities it entails, rather than in the exact criteria itself, as long as the criteria applied are appropriate and enable reasonable comparisons between cities or regions' (Trip, 2007, p. 31).

Two things are of importance here. First, it seems that quality of place is a rather vague concept considering the fact that the criteria on quality of place don't create the definition. This emphasizes the idea that it is hard to grasp, although it will be attempted to create a characterisation that is relevant for this thesis. Second, comparisons between locations can be performed when the same criteria are used. Therefore, this thesis uses case studies that compare quality of place during different selection procedures in different locations. Relevant criteria vary between different location types, therefore it has to be reconsidered which criteria are applicable to railway stations before the influence of the selection procedure is taken into account. Because the essence of quality of place is covered in the criteria that are used, it is of importance to get an overview of measures and indicators that have been applied in previous research. First, some measures on quality of place are set forth (see table 3.2). The minimum set is used is the majority of research, additional measures can be applied depending on the research angle.

Table 3.2 Local quality of place measures

Minimum set of measures	Example
Environmental threats to human health	Air and water quality
Recreational amenities	Parks, sports areas
Aesthetics of landscape and streetscape	Used materials, cleanliness
Additional popular measures	**Example**
Physical planning factors	Availability and diversity of housing and transportation
Economic factors	Employment opportunities, stability of property values
Social factors	Educational opportunities, crime rates, sense of community
Political factors	Trust in government, civic engagement

Based on: Andrews (2001)

The examples already show difficulties on how to measure quality. Because everyone has a different normative view on aspects of quality and differences between cultures, times and places occur, measures such as 'aesthetics of landscapes' are extremely difficult to assess. However, some elements are easier to be tested statistically, such as 'diversity of housing' or 'crime rates.' Therefore there is a difference between subjective quality of place and objective quality of place (Janssen-Jansen et al, 2009, pp. 7-8). In table 3.3 a number of elements that are of importance to quality of place are listed non-exhaustively, together with indicators that can be used for measurement in order to maximise objectivity.

Table 3.3 Factors in quality of place

Quality	Indicator
Diversity	Functional diversity, distinctive neighbourhoods, sufficient density
Specific amenities	Individual sports facilities, recreation areas and restaurants per capita; (semi-) public spaces for informal meetings (*third spaces*)
Liveliness; culture	Cultural and musical events; live performance venues per capita
Technology, innovativeness	Patents per capita; relative percentage of high-tech output
Talent	Percentage of people with bachelor's degree and above
Creativity, bohemia	Percentage of artistically creative people
Tolerance, openness	Relative percentage of foreign-born people; idem coupled gays
Aesthetics	Architecture; parks; urban heritage
Environment, sustainability	Natural environment assets; environmental quality; reuse of older industrial sites
Safety	Crime figures

Source: Trip (2007, p. 31)

All of these qualities have an effect on the look and feel of a place and therefore influence the quality of life and economic competitiveness. The indicators can be used to create rankings of cities based on quality of place, which demonstrates that the cities with the highest quality of place are economically the highest competitive (for instance Florida, 2002). These indices are interesting, but links between indicators and their psychological importance are hard to proof (Loftus, 1985, in Andrews, 2001). Moreover, some of the indicators are still very difficult to measure or compare, such as 'distinctive neighbourhoods' or 'sufficient density.' From the characteristics, examples and indicators that have been listed, spatial scale becomes problematic too. Quality of place can be visible locally, for instance by a clean public square, but this doesn't indicate a connection with economic factors such as employment opportunities, which are measured at a higher scale. Finally, comparison between different countries can be different because statistics are collected in incomparable ways.

The focus in this research isn't on comparing different cities, but to see whether elements of quality of place are taken into account in the planning process. Therefore, not all qualities that are mentioned are relevant for this thesis. The elements mentioned in table 3.3 obviously have downsides and not all of them are relevant, but they offer a first overview of what can be considered as factors of quality of place in order to get a better grip on the concept. The relevance of creating a useful concept of quality of place is stressed by Florida (Florida, 1995) and others (for instance Salvesen & Renski, 2001) by stating that high-skilled workers move to places that excel in quality of place elements such as seen in table 3.3. Trip researched the operationalisation of quality of place in the redevelopment of railway station areas and indicates that the measurements used by Florida concern three main elements at city level: creativity and talent, diversity, tolerance and safety and specific amenities (Trip, 2007, p. 67). Though these aspects are extremely difficult to influence directly by public policy and urban planning, favourable conditions can be created. Resulting from these conditions three components influence quality of place at project level: diversity, integration and public space. Because Trip's research covers railway station area redevelopment, this operationalisation of quality of place is highly useful in order to research the differences between different selection procedures.

3.3.1 Diversity

The first component is diversity, which in turn is constructed of several aspects. First, there is the concept of economic diversity. According to Florida (2002, p. 91) diversity of firms in a region is crucial in order to attract and retain the kinds of talent that is necessary to generate economic growth and support a high-technology industry. Areas that contain more economic diversity experience lower unemployment rates and more stable economic growth (Malizia & Ke, 1993). While economic diversity covers variety within businesses, diversity between functions also occurs, which is the second aspect of diversity. The relevance of different functions in a place in order to make it successful is stressed by Jacobs (Jacobs, 1961, pp. 187-231). Because of different functionality, which is called primary diversity, different people are present in an area during the day. Primary diversity consists of the uses that make people visit a place, such as education, business and residences. In order to benefit from the number of visitors that primary uses attract secondary diversity emerges, which consists of specialised services and shops. As the number of visitors rises and the purpose of a visit shifts to these businesses, the possibility for secondary diversity to become primary diversity occurs. Cumulative causation effects (as explained in paragraph 2.1) can create highly specialised places, though this is only likely when the other primary uses still attract plenty of people.

Diversity of functions can be an enhancing factor for other quality of place aspects. For instance, the presence of people during more times of the day than just business or residential peak hours can in turn lead to improvements in safety because of the many eyes that are watching (Jacobs, 1961, pp.

37-71). Succeeding in attracting a diversity of functions and visitors in an area creates a more effective use of the infrastructure system, as it is used at different times and in different ways.

While the key to successful places lies in the use of a place by different people, diversity of functions facilitates the mix of users. Florida's opinion on the topic is strong by stating that diversity of human capital is necessary to attract and retain high-technology industry (Florida, 2002, p. 137). The resulting causal relation is that diversity attracts talented people, and that these people are in turn responsible for economic growth.

When referring back to the node place model of paragraph 2.3, diversity of functions can be indicated by this model. While the node value covers the transportation function, the place value includes all other functions that transportation hubs encompass. Integration, both on the levels of the two functions within the hub and the connection to the surrounding city.

The topic of diversity has been widely discussed over the last decades (Cullingworth & Nadin, pp. 318-320). In practice, diversity of functions and people of different social classes became apparent in many development projects, making diversity a goal in itself. However, a focus on just diversity can lead to obliviousness to the surroundings of the project and therefore not lead to an improvement of quality of place in an area. Therefore, attention is paid to the integration of a project with its surroundings.

3.3.2 Integration

Integration deals with issues similar to diversity, but on a different spatial level. In this case diversity is seen at a higher stage: the surrounding area of a place or even the whole city or region. Diversity of functions and people in the whole area is eased when integration causes different areas to function as one area (Trip, 2007, p. 73). There are three types of integration: spatial, functional and mental.

Spatial integration deals with the accessibility of places in relation to their surroundings. The most common issue in accessibility is the presence of physical barriers which cause fragmentation: the disconnection of places from the adjacent area. Because of the large requirements of space of railway stations and their specific function, integrating transportation with the surrounding area is problematic. Barrier effects can create gigantic differences between the areas on both sides of infrastructure in terms of safety, demographics and social class (Noonan, 2005). Functional integration deals with the presence of certain functions within an area as compared to its surroundings. Successful areas contain functions that are not available nearby and therefore attract people to it specifically (Kent, 2000, p. 21). When the surrounding neighbourhoods offer other unique functions, interaction between the places will inevitably take place, leading to effects similar to those of diversity, e.g. the presence of different people at different times of the day. The last type of integration, mental integration, is the result of spatial and functional integration and deals with the way that people perceive areas. Mental integration occurs when people can easily find their way around neighbourhoods, even though they are new to the place. It is therefore highly influenced by spatial integration as badly accessible places generate a negative perception and therefore even less people visit them. Also, architectural and urban design features can directly affect mental integration. Consequently, intervention through redevelopment is a possibility of influencing problems that occur though problems of integration.

Redevelopment can either be a risk of or solution to fragmentation. Risks of fragmentation occur when stakeholders operate at their own project level and are not concerned with connecting to the surrounding territory. However, attempts can be made to reconnect disintegrated areas with each other through redevelopment. Spatial and functional integration can be tackled directly through redevelopment, though the effects of functional integration cannot be measured directly. Only after

a period of time of people using the place, effects on mental integration will occur. Whether or not an improvement takes place also depends on the third aspect of quality of place: public space.

3.3.3 Public space

The third aspect of quality of place deals with areas that are accessible to everybody: public space. At first sight this aspect seems to be most directly influenced by urban planning because it concerns a type of place, which makes it easier to plan for than for instance diversity of people. However, there is no general definition of public space: multiple meanings are used which in some cases are even contradictory (Van Melik, 2008, pp. 16-20). In most cases reference is made to the physical setting (streets, parks), accessibility and social meeting function. As with quality of place, definitions of the concept are merely concerned with the elements it contains than stating an exact definition. It is clear that public space consists of freely accessible areas that do not necessarily have to be public property or accessible at all times of day. This covers areas that are part of a wide variety of functions and different ownerships, which creates great difficulties when anticipation by planning is desired. Therefore Trip states that of the three elements, public space is the most strongly related to the intangible aspects of quality of place (Trip, 2007, p. 76). Also, it is the most important one because it contains the issues of diversity and integration and covers more aspects at the same time.

Of course, it is impossible to construct a single method of how to measure the success of public spaces. However, it is clear that the definitions of public space concern four major elements: use and activities, comfort and imagery, accessibility and connections and sociability (CROW, 2008, pp. 86-93). Use and activities covers the reason for visiting a public space and the actions that people perform in it. From this, it is clearly visible whether a place contains quality or not: places without quality will hardly be used. Or the other way around: without use and resulting activities of people, places cannot be seen as qualitative. This coincides with Jane Jacobs's ideas on urban life, which are based on the fact that places are only good when they are used for different functions by different people. Comfort and imagery deals with the 'look and feel' and identity of public places: the urban design, architecture and applied materials of a place. As with mental integration, the view people have will be crucial on how a place is used in practice. Accessibility and connections are similar to the element of spatial integration, although this time the connections between parts of the same place matter as well. Finally, sociability is the result of the previous factors. Sociable places are places where people meet, relax and use the available amenities together. When problems around the other qualities of public space occur (for instance lack of functions, deteriorated materials or bad accessibility), sociability will consequently decline or even disappear. Safety is a part of sociability and is also highly influenced by the number and kinds of people that are around.

3.4 Criticism on quality of place

'If one conclusion emerges from this, it is that writing and debate on these issues of quality of place, or urban quality in general, may continue almost indefinitely' (Trip, 2007, p. 82).

Inevitably with a concept that is defined and measured differently in a great number of studies, criticism on quality of place occurs. The fact that people experience quality of place in their daily lives creates a great interest in the topic, but their individual preferences also lead to disputes.

The first problem with quality of place has already been addressed: the availability and comparability of data between places (Andrews, 2002, p. 203). Statistical relations between different redevelopment projects are difficult to compare because most data is measured at a higher spatial level. On some aspects (e.g. aesthetics) data is even nonexistent and highly subjective. However, it is the subjectivity that is relevant for this research: the influence of different of opinions on quality of place elements in selection procedures. Therefore, the lack of comparable data on an international scale and the potential for biased opinions on quality of place isn't problematic.

The link between measurement and perception of quality of place is difficult to establish because of the limited scope of its elements: not all factors that influence quality of life are captured by quality of place measures (Cho & Stevens, 1983). Therefore a broad scope is necessary throughout quality of place research which can be achieved by performing qualitative research. Also, an explicitly stated definition (see paragraph 2.2) reduces the comprehensive character by focusing on specific elements.

A criticism that is placed specifically on Florida's account is the relation between the creative class and economic growth. Though he claims to have found a direct relation between creativity and growth of employment and income, this is contested. The statistical evidence is limited, in fact the presence of another factor, skilled (highly educated) people in an area instead of the 'bohemian index' generates similar results. The effect of Florida's measures of creativity occur because of two cities, when these are left out the relation disappears (Glaeser, 2004). Nevertheless, whether growth is generated by creative or 'just' skilled people, creating quality of place is still relevant for cities in order to attract human capital. Even if the statistics deny the relevance of 'bohemians,' creating attractive and successful places can be a policy goal. It is therefore in this thesis addressed at project level. Florida's idea on the concept is maintained, however it is noted that the causal relationship with the creative class is contested.

The last notion of critique concerns the intangibility of the concept. This has been covered throughout this chapter in order to provide more clarity, both on what it encompasses and what the relevance for redevelopment projects is. Not all factors that can be ascribed to quality of place as seen in table 3.2 and 3.3 can be taken into account, therefore this research focuses on three main elements that are made tangible by the actors in the redevelopment process: diversity, integration and public space.

3.5 Conclusion

In this chapter, the concept of quality of place has been introduced and explained. First, location theory showed how attention for quality of place developed. Classical economists explained land use patterns by distributive shares, movement costs and resources. Neoclassicists added more reasons to the debate and more recently agglomeration theories and cumulative causation effects are taken into account to explain the use of lands and economic prosperity. From this, it is clear that inner-city locations are now less the domain of production and more of consumption. This resulted in a shift of power towards the inhabitants of the city, who are now the most important resource for organisations. Companies respond to this by locating near this labour pool and cities that succeed best in attracting the creative class will prosper in economic sense. The creative class earns well and is demanding in its choice of living area, which needs to be attractive and diverse. Therefore a focus by cities on maximizing quality of life and quality of place is highly important.

Quality of life consists of factors that are important for the well-being of people, starting at the level of physiological needs and expanding to much more matters during times of economic prosperity. In research on quality of life, the concept is contested and several different sets of factors are used. Therefore it is explained which type of definition is used, which takes away some confusion but is still not concrete enough. In order to create a relationship with redevelopment and railway station areas, quality of place is used as an operationalisation of location factors that are of importance for quality of life.

Quality of place is of importance for policy because it shows that the well-being of people and the economy can be influenced by interventions in the physical environment. Like quality of life, the concept requires an operationalisation for each research, which is found in the division into three elements that influence both the way that people experience places and the economic output that is produced: diversity, integration and the quality of public space. The first includes diversity of people, functions and economic activity. Integration covers diversity at a higher spatial level, in which the relationship between the project and the surrounding area is addressed. This is once again split up into three parts: spatial, functional and mental integration. Public space covers those areas that are freely accessible, as is the case with railway stations. The way that public space is used depends on the present functions, without which public space will not be used at all. Also, comfort, accessibility and sociability determine whether a public space is successful.

A concept that is as comprehensive as quality of place is inevitably the subject of criticism, especially because parts of it can be ascribed to personal taste, such as aesthetics of streets and buildings. A quantitative argument is the lack of data and the limited comparability between places, especially internationally. Also, the relationship between quality of place, the creative class and economic output is contested, but this does not mean that quality of place indicators cannot be used qualitatively at the project level. The final criticism, that of intangibility, is tackled by the division into three components which are researched here.

Chapter 4 Methodology

From the previous chapters, it has become clear how planning policy and quality of place have developed. In order to provide answers to the remaining research questions, empirical research is necessary, which will be carried out in the second part of this thesis. First, a research methodology is developed, which will be explained in this chapter.

In paragraph 4.1, the used method is addressed, which includes the use of theoretical works, the approach to empirical data and the way that it is gathered. Next, the choice of case studies is clarified. Then, the people that have been interviewed during the empirical part of the research are listed. Finally, to provide further framing, the concepts and definitions that are used throughout the research are explained subsequently.

4.1 Research method

In order to answer the main research question and sub questions, an approach to the collection of data has to be chosen. Social science research can be performed using a qualitative or quantitative method, or a combination of both. Quantitative research consists of a series of steps moving from theory to conclusions using numerical data (Bryman, 2008, p. 140). Qualitative research focuses on words instead of numbers and has an inductive approach: theory is created after the collection of data (Bryman, 2008, p. 366). In this research, a qualitative approach is used. The choice for a qualitative approach is based on the fact that the research goal is to see how influence of quality of place takes place. A quantitative approach could confirm or reject the influence of selection procedure type of quality of place, but might overlook many important aspects that are project specific. Quantification of quality of place elements would mean a loss of data and make it impossible to deal with softer influences such as actors' interests. Qualitative research is more suitable for this: it is aimed at understanding the reasons behind decision making, which is the matter of concern for this thesis (Boeije et al, 2009, p. 254).

The ontological base of the research is founded in constructionism, a post-modern concept. Constructionism states that social conditions are created by social interaction, a process which is in itself constantly changing (Bryman, 2008, p. 19). This results in the fact that there is no unambiguous perception of quality of place and that the perception changes over time. This is in accordance with the epistemological base: interpretivism. Interpretivisim attempts to understand the social world by examining the way that actors interpret this world (Bryman, 2008, p. 366). This is exerted in the research by indicating differences between the actors' perception on quality of place.

As is common in qualitative research, the general approach of the research is inductive. Theoretical foundations of previous research on relevant topics will be used, which is a deductive technique (Boeije et al, 2009, p. 83). However, this is mainly to perform the operationalisation. This knowledge will be used as the base layer of the rest of the research, which makes induction the main approach to the research. The thesis uses two approaches that complement each other: a theoretical framework and an empirical part, which will be discussed here.

4.1.1 Theory

The theoretical framework provides an overview of how the literature on the topic has developed over the years and what the current views are. In chapter 2 and 3, the theoretical framework has been constructed. First, the general policy context and shift to a collaborative approach has been discussed. Next, theory on quality of place and its history throughout science was explored. A very broad approach that covers general location theory was the starting point. A brief journey through classical economics lead to firms' and residential location preferences. From here, the relevance for

quality of life issues has become clear. Next, the shift was made to quality of place, as a stepping stone to the empirical part of the research.

The theoretical framework provides preparation for answering the general research question. By indicating which elements of quality of place are used in previous research, the theoretical framework answers part of the second and third sub question. Altogether, the theoretical framework created the base for the rest of the research. Now, the empirical part covers the remaining questions.

4.1.2 Empiry

Data collection in the empirical part of the research is performed by qualitative interviewing, using both unstructured and semi-structured interviews. The unstructured interviews are in character similar to a conversation, however certain topics are explicitly addressed (Bryman, 2008, p. 438). The goal is to gather a large amount of information on key elements of this research (public space, tender procedures, communication and temporality). This is achieved by discussing these topics with experts and giving them a degree of freedom on their discipline in order to gain as much possible information on the subject. The results from the unstructured interviews are used for answering the research questions, as a preparation for the semi-structured interviews and as inspiration for the recommendations.

Semi-structured interviews are performed with professionals that are involved on several sides of the process of two redevelopment projects: those that have initiated the redevelopment process and selection procedure and those that have been involved in the creation of the tender plans. This way, for each of the actors their perception on quality of place and the relevance for the selection process is defined. In semi-structured interviewing, a list of topics or questions that have to be addressed during the interview is prepared in advance (Bryman, 2008, pp. 437-438). However, it is not necessary to follow the topic list strictly and the researcher can ask follow-up questions that appear to be relevant during the interview. The choice for semi-structured interviews is based on flexibility: because quality of place is a broad concept that covers many location properties, the interviewee might address issues that are not covered in the interview outline. However, since these issues can influence quality of place, they are still relevant for the research. A quantitative approach using structured interviewing would maximise reliability and validity, but in this research more value is ascribed to flexibility. A third option is unstructured interviewing, which offers even more flexibility than semi-structured interviewing, but makes comparisons between other interviews and cases much more difficult. Moreover, certain topics (for instance quality of place elements) have to be mentioned explicitly in order to answer the research questions about the cases, which might not occur in unstructured conversation.

The semi-structured interviews are case specific and will provide data in order to answer the remaining research questions. First, it will be clear from the interviews what factors are of importance when choosing a selection procedure for redevelopment projects in the first research question. In the theoretical framework, several quality of place indicators and elements have become clear. In the interviews, they will be addressed in order to find out the relevance of certain elements for different actors. By comparing the cases, differences in elements can become visible, of which some could be ascribed to the selection process. Therefore, the empirical part answers the last part of the third research question, and provides the link to answering the main research question.

Analysis of the interviews takes place through computer-assisted qualitative data analysis software. All interviews are recorded and transcripted, after which the transcript is copied to the NVivo software programme. Here, the texts are coded using relevant keywords in order to compare the different interviewees and cases on the same topics in a structured way (see appendix 1 for the list of

nodes). The interpretation and analysis of the data is still left to the researcher, but qualitative data analysis software makes the process easier and provides better comparability (Bryman, 2008, pp. 565–567).

4.1.3 Sources of information

In both the theoretical and empirical part, different types of sources are used. Of course, the theoretical part is mainly based on scientific research, but several other document types provide information as well. Public policy papers are consulted in order to investigate the significance of quality of place in urban and rural planning. Other documents that are used include redevelopment plans of other transportation hubs and non-scientific analysis that has been carried out for these projects. The empirical part is mainly based on the interviews. However, in order to avoid the loss of useful interview time with stakeholders, general information on the projects is collected beforehand. This general information is collected in the same way as the other projects and is mainly non-scientific.

4.2 Case study selection

The empirical part of the research is based on two cases of railway station redevelopment projects. In order to create general statements on quality of place in selection procedures, two representative cases have been selected, which represent a broader category of which it is a member (Bryman, 2008, p. 56). This means that these cases are exemplifying for the type of selection procedure that is used. Of the most used procedures in railway station redevelopment (see chapter 5), the most recent projects of which plan formation is finished are selected.

This leads to the selection of two railway station projects, the NSPs Arnhem and Breda. Both of the cases are recent, meaning that the construction phase has started in the second half of 2012. In order to compare the influence of selection procedure type, both cases used a different tender procedure. For Breda, the choice of contractor was solely based on lowest price, while in Arnhem a multi-criteria procedure was used (see chapter 5 for a more extensive description). By choosing cases which are both railway station redevelopments, but have a different process structure, the influence of the procedures on quality of place is researched.

4.3 Interviewees

As explained in paragraph 4.1.2, both unstructured and semi-structured are used to gather empirical data. In table 4.1, the interviewees of the unstructured interview are visible. The first two experts are from CROW, a technology platform for transport, infrastructure and public space. By discussing two main topics of this thesis (public space and tender procedures) with two employees in an early stage of the research, valuable insights for the further approach of the empirical part were gained. The third expert provided process management on communication in an area development project (A2 Maastricht), in which an exceptional approach to public involvement during the tender procedure was used. By interviewing a member of the winning tender team, insights were gained that could be used for recommendations on further planning practice and how to deal with communication. The last expert is employed by NS and deals with how the stations operate during redevelopment. After the research showed that temporality deserved further attention, an unstructured interview with the expert further clarified the topic and provided recommendations as well. The professionals which are questioned by the unstructured interviews were therefore not involved with the cases, but provided more detailed information on important elements of the research and insights for the recommendations.

Table 4.1 Interviewees – unstructured interviews

Reference	Expertise	Organisation	Function
EXP1	Public space	CROW	Project manager
EXP2	Tender procedures	CROW	Project manager
EXP 3	Communication	ABL2	Process manager
EXP4	Temporality	NS	Advisor temporary situations

In chapter 1 it was explained that the organisations that have the most influence on quality of place in the redevelopment process are the municipality, railway owner, railway operator and the project developer or contractor. Therefore, for each case study, it is attempted to interview an expert from all these parties. This will provide views on the process from both sides and makes it possible to verify statements. Table 4.2 shows the interviewees of the semi-structured interviews, the project that they are involved in, their organization and function. In appendix 2, the topic list around which the interviews are performed is shown.

Table 4.2 Interviewees – semi-structured interviews

Name	Case	Organisation	Function
PRBR	Breda	Prorail	Tender manager
NSBR	Breda	NS	Project director
MUBR	Breda	Municipality of Breda	Programme manager
PRAR	Arnhem	Prorail	Tender manager
NSAR	Arnhem	NS	Developer
NSAD	Breda & Arnhem	NS	Director asset development
TC 1	Beda & Arnhem	Ballast Nedam	Vice director of realisation
TC 2	Breda & Arnhem	Ballast Nedam	Tender manager

During this research, the interviewees are referred to by the abbreviations that are mentioned in the tables. When information is drawn from the unstructured interviews, this is referred to by EXP and the number of the interviewee as shown in the table 4.1. For the semi-structured interviews, the interviewees are categorised by their role in the process. The contracting authorities are referred to as the first letters of their organization (PR: Prorail, MU: municipality) and case (BR: Breda, AR; Arnhem, see table 4.2). The railway station of Breda is mentioned first because of the fact that a price only procedure was used, which is first covered before looking into the multi-criteria procedure. The main procurer, Prorail, is referred to first, followed by NS and municipality. The tender candidates are abbreviated as TC. While the results of the tenders are known by now, the research deals with the phase in which the contractor was still a tender candidate. The transcripts of the interviews, both unstructured and semi-structured, are available on request from the researcher.

4.3.1 Problems on data gathering

Refusal for an interview has taken place in one case, at the municipality of Arnhem. Here, the supposed interviewee considered the topic too sensitive to talk about in this phase of the project, which was strengthened by the position of the researcher as an intern at the involved contractor. This created the impossibility of data gathering at the municipality. By interviewing other contracting authorities of this case, also on the role of the municipality, this is obviated.

4.4 Definitions

In the theoretical framework many concepts have been addressed, for some of which a definition has been given. This paragraph provides an overview of the main concepts that are used throughout the research. For some of the concepts this will therefore be a repetition, but this is done in order to provide a complete overview of the definitions.

Contracting authority
See 'Procurer'

Contractor
'General builder who does the actual construction of the project for the developer' (Collier et al, 2008, p. 91).

Client
'The customer for construction' (Construction Industry Board, 1997, p. 4).

Design and construct
'A system of procurement in which the main contractor is responsible for the final design as well as the construction of the project. The design might be developed in part by the client prior to tender and incorporated in the 'employer's requirements' on which the tender is based. In this case, designers engaged by the client for the initial design work may be transferred to the employ of the contractor. Alternatively, design might be undertaken by consultants engaged by the contractor, by the contractor's own staff or by subcontractors' (Construction Industry Board, 1997, p. 4).

Procurer
'A public buyer of goods and services or commission work' (European Union, 2012).

Project developer
'An individual or firm that locates and secures control of a parcel of land, obtains necessary approvals, and adds improvements to the land to increase its value' (Collier et al, 2008, p. 91).

Qualification
'The process of assessing potential contractors as suitable and competent to undertake certain types and values of construction work against general, rather than project-specific, criteria' (Construction Industry Board, 1997, p. 4).

Quality of life
'A feeling of well-being, fulfilment or satisfaction on the part of residents of or visitors to that place' (Andrews, 2001).

Quality of place
'An aggregate measure of the factors in the external environment that contribute to quality of life' (Andrews, 2001).

Selection
'The whole process of identifying the best tenderer from the available field, through qualification, compiling the tender list, tendering and assessment' (Construction Industry Board, 1997, p. 4).

Subcontractor

‘An individual or organisation employed by the lead contractor to construct (and sometimes design) part of a project’ (Construction Industry Board, 1997, p. 4).

Tender procedure

‘A tender may be defined as an offer to carry out certain work or supply certain material in accordance with clearly detailed descriptions and conditions. The tender procedure deals with prequalification of contractors, preparation of documents mode and floatation of enquiry, receipt of tender, guidelines for evaluation of tenders and selection of contractor’ (Choudhury, 2008, p. 114).

Urban redevelopment

‘As those policies, and activities that would do away with the major forms of physical blight in cities and bring about changes in urban structure and institutions contributing to a favourable environment for a healthy civic, economic, and social life for all urban dwellers’ (Narayan Reddy, 1996, p. 18).

Chapter 5 Selection procedure

Part 1 of this thesis indicated a shift towards collaborative planning which is visible in planning theory. This chapter is the start of the empirical part and deals with the process of area redevelopment and, in line with the focus of the research, in particular the selection procedure of private parties in the redevelopment of railway stations. First, we need to know which types of selection procedures are used. Then, reasons for choosing a particular type of selection procedure are explored for the selected cases. This chapter therefore looks into the second research question:

Which types of selection procedure are used and what factors determine the choice for a procedure in the redevelopment of railway stations?

The first paragraph concerns redevelopment in general, shows the stages in a redevelopment project and the steps that are taken. From here, it will be clear what stages precede the selection procedure and what decisions are made during these phases. Next, the different selection procedure types and their properties are explained. In paragraph 5.3, the cases are introduced and the reasons for their redevelopment are explained. Finally, the reasons behind the choice for a specific type of selection procedure in these cases are discussed, using information gathered in the interviews.

Source: Koen van Velsen Architects (2012)

5.1 The redevelopment process

The choice of selection procedure is just one step in the redevelopment of a railway station. However, during this step, important decisions on the process structure and division of roles are made. In order to show at what point in the whole redevelopment the selection procedure comes into place and what steps precede this, a brief introduction into the whole process of area development as it is common in the Netherlands is given. Of course, the process that is described here cannot always be followed exactly according to the model, but it does provide an indication of the steps that are taken during redevelopment. From this, it will be clear why and in what stage a selection method is used, after which the methods can be looked into more deeply.

In area redevelopment, the process is structured around three choices which are made by the contracting authority, also called procurer (Rijksoverheid, 2011, p. 101-105).

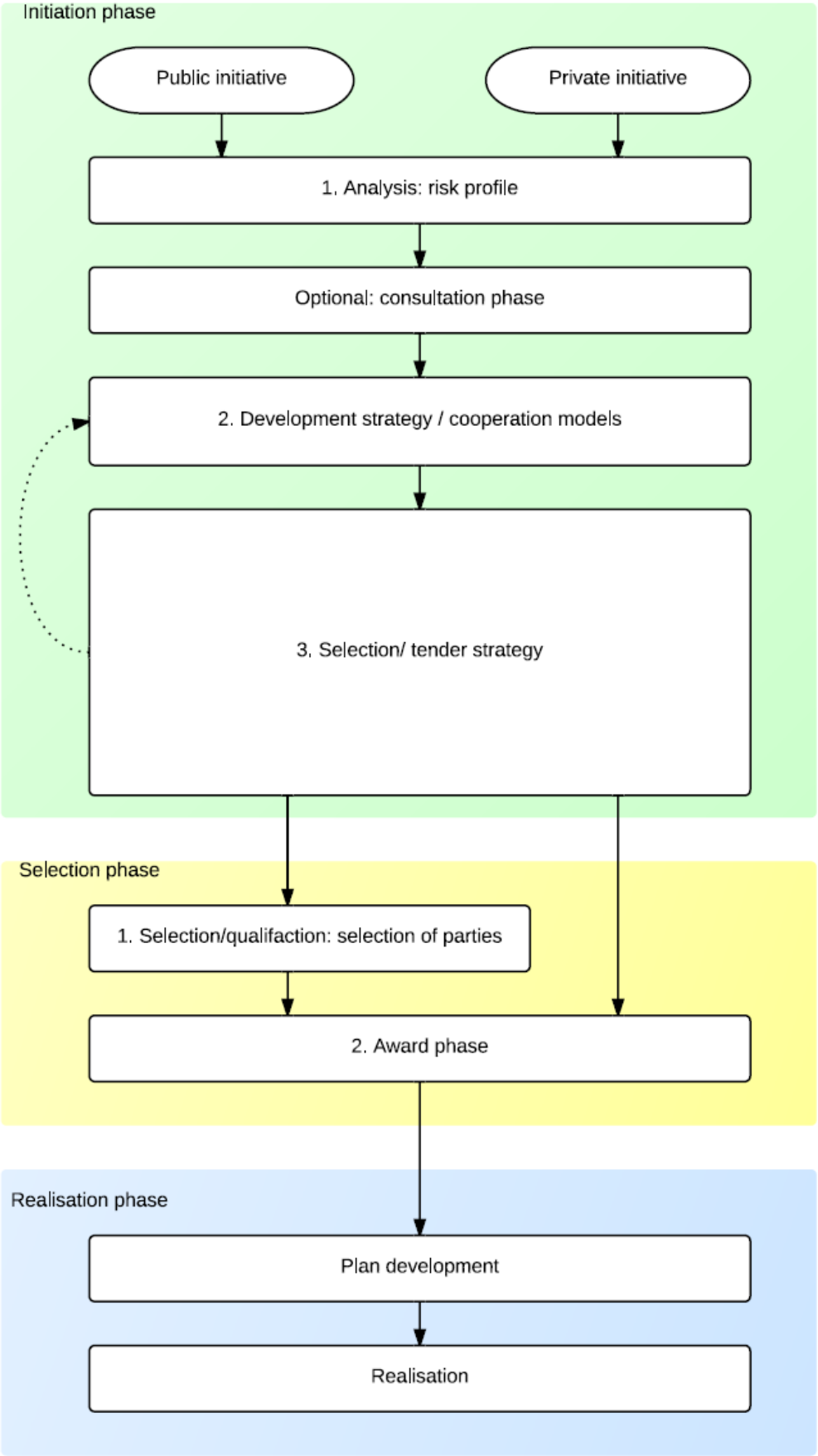
1. First, the cooperation model, in which is decided which plan elements are developed by public parties and which elements are the responsibility of the private actors.
2. Second, the choice of when to involve the market in the process: an early involvement in order to add the private parties' experience at an early stage or later involvement in order to frame the project in current policy as much as possible and maximise political legitimacy.
3. Third, the way of involving the market: through private initiative, one-on-one selection or through competition using a selection process.

These three choices are crucial at the start of the planning process: they determine which actor is responsible for which part of the process and the degree of freedom that the market gets. Therefore, they will be further explained here. Because of the importance of the choice of selection procedure in this thesis, paragraph 5.2 will focus explicitly on the procedure, the other two choices will be addressed here.

The process structure indicates in which part of the process each choice is made. The redevelopment process contains the same process structure as other (greenfield – previously unbuilt) area development processes. Of course, the actors involved can be different because property is already present, but the stages of the process remain similar. Figure 5.1 shows an overview of the three stages: the initiation phase, selection phase and realisation phase. The initiation phase will be addressed here, before moving to the selection phase in the next paragraph.

Redevelopment projects can be initiated by public and private parties. In order to determine the development strategy and cooperation model, a risk profile or actor analysis is performed by the initiator. Based on the risk analysis, the choice is made which risks are acceptable and which risks should be shared with or adopted by other parties. Land ownership is crucial in this analysis, as it determines who the stakeholders are. Inner-city projects carry high risks by nature because of the high variety of functions on a small surface within the existing urban structure and the constant need for accessibility. Moreover, many different actors are involved: current and future users and owners of real estate all have different interests at stake. When the risk analysis doesn't provide enough clarity on how actors could be involved or on the feasibility of the project, a market consultation can be started in which the procurer asks private parties to develop ideas. This should create a better view on the plan in terms of finance, development programme, preconditions and the eagerness of the market to get involved. As incentives for private parties to join the consultation, a financial reward or involvement in the project development can be granted.

Figure 5.1 Overview of the redevelopment process



Based on: Rijksoverheid (2011)

The next step is to develop a strategy in which the ambitions, possibilities, market conditions and roles of the actors are explored. This leads to an overview of the preconditions that the procurer poses on the project. The development strategy should at least contain a global programme, connection with the surrounding area and the quality of public space (Rijksoverheid, 2011, p. 24). The three elements of quality of place are clearly visible here:

1. Diversity throughout a programme of functions
2. Integration through connections with the surrounding area
3. The quality of public space.

This stresses the implicit importance of quality of place: though probably unfamiliar with the concept itself, the central government indicates that its elements should be taken into account when choosing a development strategy. The strategy can either contain detailed descriptions of the programme, connections and public space or loosely defined guidelines, depending on the way that cooperation with other parties is organised.

The choice of cooperation model offers three main options.

1. First, the option of public land development. In the traditional building model the government (usually the municipality) obtains all necessary property and sells the parcels after site preparation is completed. This way, the government develops the plan independently of private parties and is responsible for risks in lack of demand and land values.
2. The second public land development possibility is the building rights model ('bouwclaimmodel') and was used extensively during the 1990s (Bregman & De Win, 2005, p. 72). This model offers opportunities for public development in areas where private parties own land in the designated area. In the building rights model, private owners sell the land to the government, in exchange for the right to buy parcels that have been prepared for building. Here, an attempt is made to lower the public risks by creating a joint venture with a private party.
3. In the third cooperation model, the government is the least involved in plan development and is only responsible for creating preconditions. In this concession model, land and property development is left to private actors, who are responsible for the risks. The downside of the concession model is that the influence of the procurer is very limited after the contract has been signed.

After the development and cooperation strategy have been determined, the initiation phase is almost finished. The last choice in strategy concerns the selection procedure, which determines exactly how the involvement of private parties takes place. Because this is still an internal process, the creation of the strategy is part of the initiation phase. Only at the moment when parties can apply for cooperation, the actual selection phase starts. A selection procedure isn't a necessity for every project; when the cost of the works is less than € 5 million the procurer is free to choose their partner (European Union, 2012). If the costs exceed this value, a European tender procedure is obligated that allows all European companies to take part and create a bid. In railway stations, the municipality or railway infrastructure owner Prorail, which is also a public organisation, is inevitably involved in the process. Also, because of the scale of the projects, in particular the NSPs, the building cost threshold is easily exceeded. Therefore a tender procedure was a necessity in the redevelopment cases in this research.

A tender procedure is a way of mobilising private parties in a redevelopment process. As soon as announcements on the existence of the tender are made, market forces do their work: companies see an opportunity to make a profit and competition on winning the tender begins. When referring back to institutional capacity (paragraph 2.2), a tender procedure usually succeeds in reaching possible development partners because it is in their nature to look for new works. Of course, this

doesn’t mean that every tender is successful in attracting the best partner. The matter to which the project itself is successful still depends on many more factors than just mobilisation. However, it does show that mobilisation of actors isn’t necessarily a difficult process. After the tender procedure has involved different partners, the selection procedure will now carry out an elimination and determine which party is granted the actual works.

5.2 Selection procedure types

The selection procedure is the second phase of the tender process and determines which private party or consortium of parties is allowed to carry out the works. As stated in chapter 1, it is researched if the selection procedure type influences quality of place in the redevelopment process of railway stations. Therefore a closer look will now be given into selection procedures that are used in the NSPs, which are distinguished by the way that the bids are assessed: either on lowest price or multi-criteria (PRBR, 2012). In table 5.1, the differences between the procedure types are set forth. These aren't the only possible procedures; different selection methods are used in other redevelopment projects. Though they are not further covered here because the NSPs were organised differently, it is possible that they will be used for railway stations in the future. Results from the research that could be applied to other types of selection procedures are therefore covered in the recommendations.

Table 5.1 Selection procedure types

	Price	**Multi-criteria**
Focus area	Lowest price	Price and market knowledge
Influence of private parties on plan	Low	Medium / High
Involvement of private parties	End of plan development	During plan development
Entry requirements	Public / non-public	Non-public
Assessment	Lowest price only	Calculation model (EMVI)
Contract type	Traditional	D&C / E&C

Based on: Rijksoverheid (2011), Uher & Davenport (2009), PRBR (2012), PRAR (2012)

The focus area of a price only tender is obviously building the project for the lowest possible price. Multi-criteria tenders are used to gather knowledge from market parties and offer possibilities of greater involvement than just building, such as risk sharing and developing the functional programme jointly. In a tender on price, the procurer elaborates the specifications and conditions of the project before involving candidates for realisation. By involving private parties into the plan formation as happens in multi-criteria procedures, tender candidates' freedom is greater by creating an own vision on and solution to the problem at elements specified by the procurer. An early involvement in the project can be desired at complicated projects in which it is necessary to encompass as much as the markets' knowledge and experience in the project (Scheublin, 2001). The moment in which private parties become involved also determines the comparability of their offer. An early involvement leaves more space for the contestants' own ideas. When involvement takes place later on in the process, the vision and other prerequisites have already been determined and selection is usually based on price. While selection on price should create a straightforward selection procedure, the comparability of visions or development concepts is more troublesome. The selection criteria on the qualitative bids are determined beforehand in order to increase comparability and fairness.

When the entry requirements of the tender are public, it is free for any organisation to enrol (Rijksoverheid, 2011). Public procedures are mainly used when selection is only based on price. In a public tender, it is free for any bidder who meets the qualification requirements to submit a tender for the work, which can lead to a high number of bids. A non-public procedure contains of two or more phases and starts with a selection of contestants who have to meet several minimal requirements and/or are able to demonstrate experience in reference projects, which leads to a restriction of the number of bids. In the second phase, a limited number of candidates create a plan, which is ranked on preselected criteria. When a private procedure is used, the procurer chooses

which parties can join the selection. Within the existing European public works framework, this type of procedure is not allowed. A competitive dialogue is an extensive variant of the non-public procedure, in which the project is granted after several selection phases. This approach is applied to exceptionally complex cases and includes the involvement of market parties in the construction of the technical, legal and financial frameworks. For the NSPs, non-public procedures are used, usually with several phases (PRAR, 2012).

At the end of the selection procedure, the tendering organisations hand over their bid to the procurer. The bid is then assessed through a preset method, which in this case is either lowest price or multi-criteria. Granting a project on lowest price is straightforward: the bidder that meets all requirements and is prepared to carry out the works for the lowest price is allowed to do so. In multi-criteria selection, the economically most advantageous bid (Dutch: EMVI) is selected. Within multi-criteria selection, there are several ways to determine which bid is the most advantageous (Kuiper, 2009). With monetisation, a fictional discount on or addition to the total realisation price is attached to qualitative aspects of the bid. The quality of an aspect, for instance design, is compared to the reference quality as drafted by the procurer. A higher comparative score leads to a fictional discount, a lower score on that element leads to a fictional addition to the price. When all qualitative aspects have been monetised, the final prices which are generated by the realisation price and the fictional discounts and increases are compared, after which the lowest is selected. Another multi-criteria selection method attaches points to each criterion. Price and qualitative aspects are each assigned points through a scoring model. After weighing the scores (for instance, 50% on price and 50% divided over different qualitative aspects), they are added together and the bid with the highest score wins. Scores can also be compared in relation to other candidates, meaning that each scoring aspect is compared to the other bids, on which the best scoring bidder gains maximum points. However, the big disadvantage here is the fact that the sequence of bidders after scoring can shift when a party decides to withdraw from the procedure. For the multi-criteria case that is used in this research, a scoring model is used in which the scores are determined independently of the other bids.

In a lowest-price procedure, a traditional building contract is most suitable. In this case, the contractor is paid to deliver a structure and the client obtains the finished product after construction. The architectural design including specifications and conditions has already been finished, therefore selection of a contractor can be done solely on price. Other contract types go beyond constructing a single product and include other phases of the building process as well. The aspects that are included in a multi-criteria selection procedure call for a more comprehensive contract. Most contract types are defined by their name, for instance Design & Construct (D&C), Engineering & Construct (E&C) and Design, Build, Finance, Maintain and the possibility of Operation (DBFM(O)). Here a single contract is signed between the public and private parties which includes all these parts of the construction and/or operation process. The NSPs are limited to traditional, Engineering & Construct and Design & Construct (Rotterdam only) contracts (PRAS, 2012, Koenen, 2010). This is due to two factors.

1. Firstly, the complexity of the situation and the high number of actors, including the fact that there are several organisations on the procurer's side. The municipality, railway owner and operator can have conflicting views on the redevelopment projects, which has already caused delays: '*The key projects in the Netherlands all started around the same time and the contractual relations between the procurers municipality, NS and Prorail are different in all projects and that is why we had all sorts of different tender procedures*' (NSBR, 2012). By granting the private parties more freedom, even more discussion on the situation and solutions would be created. In order to avoid this, the three public parties used more traditional, closed contracts.
2. Secondly, because of the time when planning the NSPs began: in the late 1990s (Rijksoverheid, 2003). DBFM contracts are still a quite new phenomenon in the Netherlands

and no experience on comparable projects was present at the time. However, more integral contract types such as DBFM have become more common in recent years, especially in infrastructure projects (De Koning, 2012). As with selection procedures, the contract types that are not used for the cases in this research but might possibly be used in the future are covered in the recommendations.

5.3 The cases

Now the general redevelopment procedure and selection procedure types have been explained, it is time to introduce the cases that the empirical part of this research is based on.

5.3.1 Via Breda

Of the six New Key Projects, the railway station of Breda is the smallest in terms of visitors: 27,000 daily. However, the connection of the station to the international high speed railway network is expected to bring about a boost in the number of visitors to 57,000 daily in 2020 (Prorail, 2011a). The direct high-speed route from Amsterdam to Brussels doesn't pass through Breda, however a high-speed shuttle link to Rotterdam has been built in order to make Breda part of the high-speed network. Though no decision has been made on the realisation of a direct link to Antwerp yet, it is seen as necessary for the station to become a success (NSBR, 2012). Still, the increase in travellers that the link to the Dutch cities would bring along refuelled a wish that existed for a while: redeveloping the station building and the area around it (NSBR, 2012). The existing station was no longer sufficient and the arrival of the high speed train could bring along a boost to the area with a demand for better and more real estate. The most important policy framework for the regeneration of the station area and it surroundings in order to prepare the city for future developments is the Structural Vision Railway Area 2025 (Gemeente Breda, 2005). The municipality of Breda confirms the view on location theory that has been explained in chapter 2:

Figure 5.2 High-speed railway Amsterdam-Breda

Source: NS Hispeed (2012)

'While previously the proximity to labour, capital and natural resources were the most important location factors, now the attractiveness of the environment, quality and accessibility are the most important factors' (Gemeente Breda, 2005).

The structural vision is the start of the improvement of these location factors and provides an overview of the area, which comprises of six subareas. One of these is the station area and contains the railway building, making clear what the ambitions for redevelopment are. This is further elaborated in a functional programme that contains indicative area sizes, which have to be established in final zoning plans. In 2010, it became clear that the development of all six areas within the vision was infeasible because of a lack of demand for offices and residences (De Architect, 2010). Instead, Via Breda would now focus on the two most critical areas which were already in development: the station area itself and the district around a former brewery, which is transformed into different new functions, while maintaining several historical buildings (Gemeente Breda, 2012).

Figure 5.3 Front entrance of Breda railway station in 2010

Source: Stationsweb (2012a)

For this research, the station area itself is the most important, for which the situation of the area and possible directions of development are elaborated in the Masterplan Centraal Breda (Gemeente Breda, 2003). The arrival of the high speed train is accommodated by a third railway platform (which is now finished), but the current station building will be demolished to make place for a much larger building that functions as a centrepiece of the whole project (see the old station in figure 5.3 and the new station in figure 5.4). In terms of the node place model of chapter 2, the improvement of the node by adding another track is a reason for investments in the place value. The redevelopment contains a diverse programme around the station including housing, offices, other commercial areas and parking. The bus station, which is now placed outside of the building, will be placed inside along the railway tracks, on top of which the parking area will be built. On the south side of the station, the residential programme is planned, together with a square that is meant as an entrance to the centrepiece of the project: an underground passageway in the station that connects the city, station area and neighbourhood on the north side. The north side of the station also contains housing, though the first floor is made up of commercial space (Architectenweb, 2012).

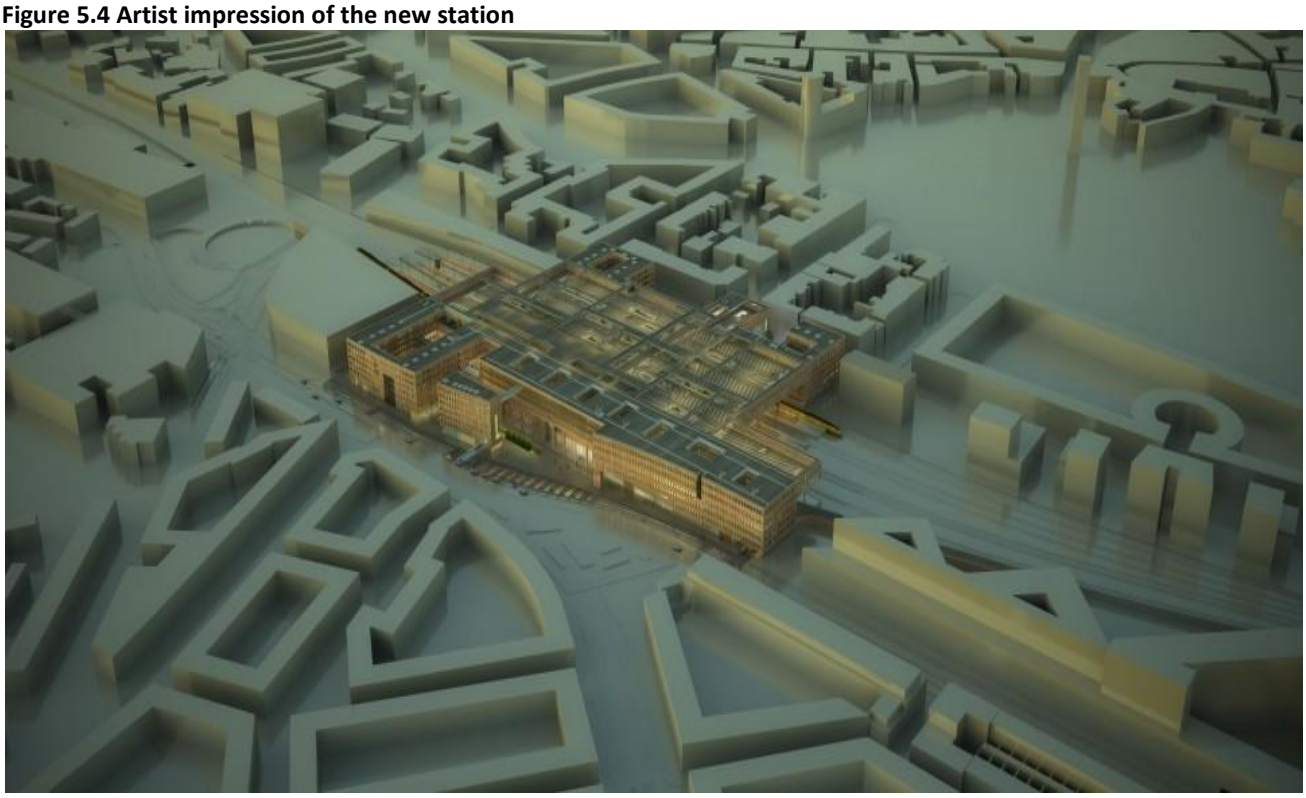
Table 5.2 Actors in the redevelopment process of Breda

Actor	Role
Municipality of Breda	Local policy, financer
Province of Noord-Brabant	Regional policy
Ministry of Infrastructure & Environment	National policy, financer
NS (Stations)	Transporter (owner of station building and stores)
Prorail	Main procurer, owner of railway infrastructure
Ballast Nedam, Hurks	Main contractors
Koen van Velsen Architects	Architect

Sources: MUBR (2012), Prorail (2011a), TC 1 (2012)

On the procuring side, financial risks are shared by the different parties: NS Stations participates for 70%, Prorail for 20% and the municipality for 10% (see table 5.2). Because NS Stations is the actual developer of the station building and future owner of the real estate, they are responsible for the largest part of the risk. NS Stations is part of the railway operator NS and is responsible for the development of station areas such as this project, therefore whenever NS is used in this thesis, this can be seen as NS Stations. In the role of real estate developer, NS had full authority on the functional programme within the station building and the amount of space that would be assigned to different functions. Prorail, as the owner of the railway tracks, platforms and tunnel has a 20% risk share. The municipality is directly responsible for the bus platform and therefore participates with 10% (NSBR, 2012). The province of Noord-Brabant is responsible for regional policy, but has no direct influence on the project. The ministry of Infrastructure and Environment creates the national policy framework and provides funding for the New Key Projects. The ministry was involved in the decision of routing the high speed train to Breda and subsequently as assessor of the demands for funding by the procuring parties.

Figure 5.4 Artist impression of the new station

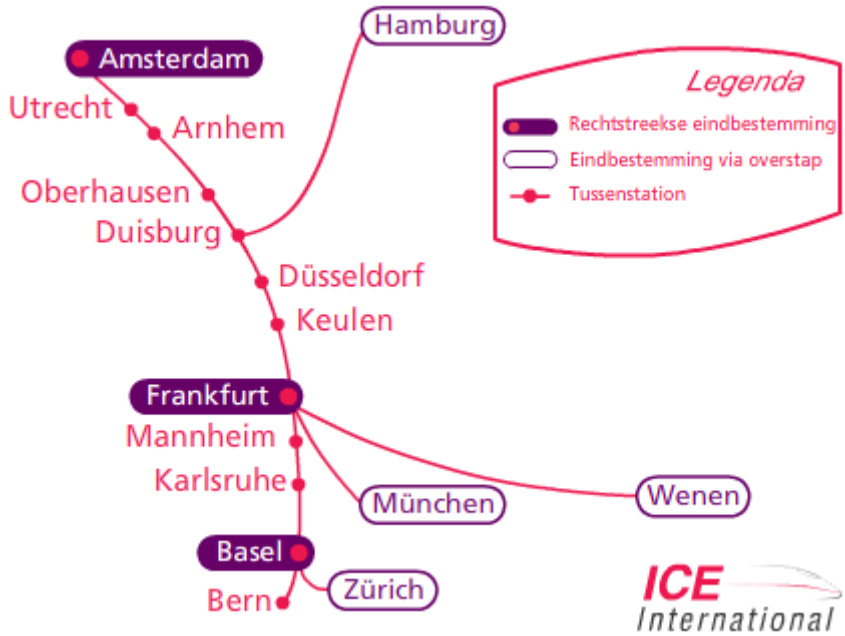


Source: Via Breda (2012)

5.3.2 Arnhem Centraal

Arnhem is the only other NSP that isn't located in the Randstad. In this city of 150,000 people, the high speed railway line from Amsterdam to Germany and Switzerland halts (see figure 5.5). The railway infrastructure, station building and bus terminal couldn't cope with the growing numbers of trains and visitors (see figure 5.6 – not exactly a high speed train station). Therefore, in the 1990s plans were made to increase the railway capacity through a series of infrastructural adjustments; an extra platform, a new passenger tunnel, renewal of the existing platforms and walkways and construction of a new public transport hub which also includes a bus station (Rijksoverheid, 2012a). These interventions part of the total plan 'Railways in Arnhem' (Sporen in Arnhem), which should prepare the railway station and surroundings for the next decades. Next to the infrastructural projects, a real estate programme including 80,000 square metres of office space, 11,000 square metres of retail, 110 residences and underground parking garages for 4000 bicycles and 1000 cars was desired. This is supported by regional policy, which is focused at developing multimodal transportation nodes which are accessible both by car and public transport and realising mixed urban environments with residences, offices and amenities in high densities (Stadsregio Arnhem Nijmegen, 2007). Arnhem Centraal is the most important railway station and transportation node of the region.

Figure 5.5 High speed railway Amsterdam – Germany - Switzerland



Source: NS Hispeed (2012)

In 1996, the municipality of Arnhem ordered the architects of UN Studio to develop a master plan containing the station building with retail and offices, railway platforms, underpass and garages (UN Studio, 2012). The design won the Schreuders prize for innovative, multiple underground land use (Architectenweb, 2005, see figure 5.7). In the municipal structure vision created in 2000, the new railway track and station are mentioned as the most important developments of the next ten years (Gemeente Arnhem, 2001, p. 57). A tender for the integral project was started, but failed because of several reasons. The design of the project was highly complex and building the waving roof in concrete was a novelty, which made cost estimations of the procurer inaccurate. Because of the complexity, contractors used an extra risk mark up in their bids which increased the price, which was already high because the market was full of orders and resource prices were high. Only one German contractor presented a bid, which was way too high for the procurer. Subsequently, the tender was announced invalid (Molster, 2012).

Figure 5.6 Front entrance of Arnhem Centraal in 1993

Source: Stationsweb (2012b)

A temporary station had already been built east of the previous building, but the situation was problematic because of long walking distances for travellers and the location of the shops, which obstructed the walkways: '*If you study Arnhem afterwards, the thing that went completely wrong was the temporary station*' (NSAD, 2012). However, not enough funding was available to carry out all the necessary works and build a new station. The solution was found in splitting the tender: a first phase with the underpass and bicycle parking garage and a second phase with the station building (Molster, 2012). For the first phase, a traditional tender on lowest price was used. Funding for this phase was present so the underpass could be constructed and the long walking distances were tackled. During construction, different problems caused delays and price increases because of errors in the specifications and conditions from the procurer. Finding extra funding for the second phase took four years and the experiences with the first phase called for a different tender approach (see paragraph 5.4).

Table 5.3 Actors in the redevelopment process of Arnhem (second phase)

Actor	Role
Municipality of Arnhem	Local policy, financer
City region Arnhem Nijmegen	Regional policy, procurer of bus and regional rail concessions
Province of Gelderland	Regional policy
Ministry of Infrastructure & Environment	National policy, financer
NS (Stations)	Transporter (owner of station building and stores)
Prorail	Main procurer, owner of railway infrastructure
BAM, Ballast Nedam	Main contractors
UN Studio	Architect

Source: NSAR (2012), TC 1 (2012)

Within this project, Prorail is responsible as the main procurer (see table 5.3). The municipality was the initiator of the redevelopment of the whole station area. Unlike Breda, NS isn't developing other functions than their retail programme and therefore doesn't share in the risks. Funding once again originates from the ministry through to Prorail and the municipality.

Figure 5.7 Artist impression of Arnhem Centraal after redevelopment

Source: Prorail (2012c)

5.4 Procedure type

The cases and their need for development have been explained, which now leads to a focus on the redevelopment process and the selection procedure type in particular. First, selection on price (Breda) is addressed, after which multi-criteria selection (Arnhem) deserves attention. In particular, the differences between the choice for each type of procedure are important, which answer the second research question.

5.4.1 Price

In Breda, a traditional tender procedure with a selection on lowest price was used. At first, the main contracting authority (Prorail) decided to create a multi-criteria tender based on engineering & construct. However, as NS participated for the greatest amount of risk a claim for more influence on the project was made: '*[...] with our 70% risk, we wanted more control on this project*' (NSBR, 2012) It was demanded that the specifications and conditions of the architectural design would be created before it was left to contractors to become involved (NSBR, 2012). Developing a real estate programme by NS was no exception at the time that the redevelopment was initiated, NS contained a dedicated property development agency (NS Vastgoed). A role as a real estate developer, combined with the local knowledge that NS had as owner of the station and shops called for maximum influence on the final product. The engineering was therefore removed from the tender procedure and carried out by the procurers.

Next to the real estate programme, the people that use the station are relevant for NS. As their customers, the users' experience of the station and the resulting transportation and (retail) spending behaviour is in the interest of the organisation. According to the procurers, contractors didn't have the specific knowledge of the situation and didn't see the people that use the station as their clients. The complexity of the situation and the fact that the procurers knew at best what was needed to accommodate their clients were the reasons to maintain maximum control of the situation (NSBR, 2012). Also, the demands that Prorail, NS and the municipality put on the new station had been the subject of discussion between these parties for some years. This led to very specific requirements on the building, which also covered engineering aspects (PRBR, 2012). When all requirements would have to be fulfilled, engineering had to be performed before the market would be involved. Therefore, the decision was made for a price-only procedure in which the contesting contractors were provided with all specifications and conditions of the building and the project would be awarded to the party that could realise this for the least amount of money.

Because of the size of the project and the importance that the procurers attributed to the operation of the station throughout the building process, they wanted to make sure that the contractor fully comprehended the project. In order to do so, the traditional price-only model was extended with a qualification phase that preceded the actual selection. During the qualification phase, five contractors tendered on lowest price. The two parties with the lowest price then advanced to the final award phase, which was a dialogue phase, meaning that the contractors could ask questions to the procurer in order to become more familiar with the project and specify the details of their bid (TC1, 2012). Though this second phase is a dialogue phase in which several aspects of the building process were discussed, such as how to deal with the visitor flow throughout the building process, the final selection was still based on lowest price. No scores were attached to the view of the contractors on the project. For the contractors, this phase was therefore used to find out if solutions that could lower the costs of building were realistic and accepted by the procurer. Also, cost estimations on building aspects could be made more specific, which would make the tender price as close as possible to the actual realisation price. The second phase however didn't lead to changes in the price order of the contractors: the party that tendered for the lowest costs in the first phase remained the cheapest after the second phase (NSBR, 2012).

When referring back to the theoretical framework, the reason for choosing a price-only procedure is based on two aspects that Healey sees as crucial for successfully improving places: relational resources and knowledge resources. The relational resources in terms of the fact that three organisations were involved on the procuring side of the process led to highly specific demands on the project. In order to meet these demands, elaborating them into specifications and conditions in a traditional contract was unavoidable:

'*The type of tender procedure at NSPs is results from the political setting and if we can get an agreement on a file at all, the triangle scope-time-money. If the agreement is there, we will involve the market. For instance in Breda, there was years of discussion on if there was enough money for the design and all the requirements. Those dynamics led to much more engineering and designing to match all those requirements, so in the end this resulted in the final specifications and conditions*' (PRBR, 2012).

Knowledge resources, in particular on the side of NS, also influenced the choice of procedure. While the main procurer first chose a multi-criteria procedure, the division of risks allowed NS to exert influence over this choice. As was stated that the highest amount of local knowledge was present in their own organisation, maximum influence over the project was assured through a price-only selection. The lack of local knowledge on the contractors' side posed a too great risk to allow them to become more involved with the specifications and conditions:

'*In our case the problem is that in those stations so much comes together that you cannot relinquish control, simply because the contractor cannot manage all those preconditions*' (NSAD, 2012).

Also, NS was developing the real estate programme at their own risk, resulting in the fact that the profits would also remain on their side. Of course, when the local knowledge is sufficient to determine the demand for and profitability of the developed functions, no further financial involvement of private developers, whether combined with the actual building process or not, is necessary. However, this can include greater risks for the procurer when there is a lack of demand for those functions.

Source: Koen van Velsen Architects (2012)

5.4.2 Multi-criteria

After the failure of the first, integral, tender in Arnhem, a solution for completing the station was needed urgently. A temporary station had been built, but it was highly criticised by travellers (NSAR, 2012, NSAD, 2012). The walkways from the bus station to the railway tracks were much longer than before and included a high stairway without escalator (visible in figure 5.8). This caused an all time low in passengers' ratings of all the stations that were in construction. From the first tender, it was clear that building the station exactly according to the architectural design and proposed materials was impossible.

Figure 5.8 Situation in September 2009: temporary station (orange) and walkway (white)

Source: Arnhem Centraal (2012)

A new approach was now created: a multi-criteria tender based on Engineering & Construct. Here, the maximum price of the building was set at 37,5 million Euros and the contractors were challenged to build the station as close to the reference design as possible for this amount (PRAR, 2012, TC 1, 2012). The design of the building was maintained as close as possible to the previous plans, but the tender contestants were challenged to find solutions for the difficulties in construction by proposing changes in used materials and design. Though limited to engineering, this was a way of *creative competition* (see chapter 1), in which the challenge for the contractors now became to add the most value to the project while maintaining a fixed price. The bids were assessed on four main aspects: aesthetic quality and materialisation, maintenance quality, planning and risk and profit share (see table 5.4). This multi-criteria selection used the points method to compare the bids (EMVI – see paragraph 5.2). The results for the first two criteria were based on a jury score consisting of several sub criteria, and assessed by a internal and external experts on these criteria. The other two criteria were scaled mathematically; a shorter building time generated a better score and a low share of general costs and risk (as a percentage of the fixed total construction price) also increased the score. The final score was then generated by multiplying each score with its share and adding all scores together. The tender candidate with the highest score was granted the project. This second tender explains the dotted line in figure 5.1: planning isn't always a linear process and sometimes it is

necessary to go back a step in order to generate results, which in this case happened through going back from the tender strategy to the development strategy (Spit & Zoete, 2006, p. 88).

Table 5.4 Selection criteria Arnhem (second phase)

Criterion	Share	Evaluator
Design & materialisation	30 %	Jury
Management & maintenance	30 %	Jury
Planning	30 %	Procedure team
Share of general costs & risk	10 %	Procedure team

Source: Prorail (2011b)

The tender started with a prequalification of suitable contractors. After this selection of tender candidates a dialogue phase started in which the parties could ask questions and propose alterations to the original plan and get a reaction from the procurer. These alterations could then be turned into amendment requests by the candidates, which would become part of their bid. At the end of the dialogue phase, the consortium with the highest total score on the selection criteria was selected. However, the project wasn't granted yet: a negotiation phase with the best scoring candidate followed. Here, the amendment requests were elaborated into implementations in the actual design and engineering. Also, risk management was worked out into further detail. Granting of the project happened after a final assessment of the renewed risk share (TC 2, 2012).

The reason for choosing a multi-criteria procedure resulted from the failure of the first tender: there was uncertainty about how to construct the building and funding had become a problem. Knowledge resources on how to build the structure were lacking (see the waving structure in the middle on figure 5.9). However, a solution was needed, as is explained by the tender candidate:

'*We were lucky with Arnhem that the procurer was under pressure and had been for years, that building had to be finished. I think that it would have not been possible, if we didn't succeed in going from concrete to steel*' (TC 2, 2012).

Knowledge resources on the technical aspects were lacking. By involving the market, their capacity of solving the engineering problems was addressed whilst at the same time costs were fixed (PRAR, 2012). In the previous tender, the procurer was responsible for the specifications and conditions, which resulted in high risks of cost exceeding when situations didn't match these documents. Now, the risk was shifted to the contractor who performed his own engineering and therefore relied on his own specifications and conditions. Risks of wrong specifications and conditions and the resulting price increases were now no longer responsibility of the procurer. So when a price-only tender led to excessive costs, this multi-criteria tender was a way to reduce costs and make better use of contractors' engineering knowledge. In terms of relational resources, involving the candidates in a part of the project that caused problems was a solution to the realisation of the difficult design.

Figure 5.9 Artist impression of Arnhem Centraal after redevelopment

Source: UN Studio (2012)

With the engineering included, this procedure was more comprehensive than Breda's tender. The procurer states that extending the tender and including even more aspects into the procedure could be desired, however not necessarily more efficient or less risky (PRAR, 2012). An extended procedure could be possible by creating a public private partnership using a DBFM contract. The second tender was carried out in 2011, at time when more experience on integral contracts had been gathered than when the other NSPs started. However, the design is the result of much debate and a long collaboration process of the three procuring parties. Accommodating all demands that these organisations pose at the new station leads to such detailed requirements that by trying to fit all of them into the budget, this almost automatically leads to the creation of the final specifications and conditions (PRBR, 2012). This is enhanced by the fact that in both cases the municipality chose the architect and therefore already chose to be responsible for the design and keep it outside of the market. Also, the way that maintenance of station areas is organised creates great difficulties in covering maintenance in the redevelopment process. NS is responsible for the maintenance of stations, but isn't the main procuring organisation. Also, maintenance is contracted in regions which cover several stations, so this would require existing contracts to be terminated (PRAR, 2012). The efficiency in contracting the maintenance of a great number of stations at the same time would then be lost. Therefore, maintenance isn't included in these station redevelopments. These difficulties in implementing design and maintenance into the tender result in the choice not to create a public private partnership and DBFM contract, but keep much of the responsibilities and therefore influence at the procurers' level.

5.5 Conclusion

This chapter addressed the way that private organisations get involved in railway station redevelopment: by tenders which use a selection procedure. The process of area redevelopment is therefore explained, starting with the initiation phase. In the initiation phase, a risk analysis is performed to provide clarity on the feasibility of the project, which can be extended by a consultation phase. Then, a development strategy is formed which includes the way that cooperation with other organisations is envisioned. At the last stage of the initiation phase, the selection strategy is determined, in which the actual involvement of partners is organised. As soon as parties can apply for cooperation by entering the tender procedure, the initiation phase ands and the selection phase starts. Now, the second sub question can be answered, which was:

Which types of selection procedure are used and what factors determine the choice for a procedure in the redevelopment of railway stations?

For the NSPs, two types of selection procedure are used: price only and multi-criteria. The multi-criteria procedures didn't cover a functional programme but were limited to the design or engineering of the construction. In general, the choice is made to maintain as much control as possible on the procurers' side. This is done by determining the specifications and conditions by the procurers and selecting a contractor on price. The procurers state to have the most local knowledge and only involve private parties in the process when specific knowledge lacks, such as in multi-criteria selections where building experience is needed as input.

In Breda, a price only selection is used. This was demanded by NS, who developed a real estate programme in the new station and therefore claimed influence on the specifications and conditions. Knowledge about their customers, both travellers and real estate users, was present and no further information from private parties on these aspects was needed. Also, negotiations between the municipality, NS and Prorail about the station lasted for several years. This created a great amount of demands on the new building, which in some cases were so specific that they automatically led to specifications and conditions. The knowledge resources, which were seen as adequate, and relational resources of plan development on the procurers' side therefore led to a traditional building contract.

The first tender procedure in Arnhem failed because of the complicated design, which caused that the cost estimation during tendering was way over budget. The temporary situation caused many problems and gave the station area a bad reputation. After several years, the project was split up and the most urgent part, the underpass to the railway tracks, was built first after a lowest-price tender. This could be done because the specifications and conditions of this part were finished and ready for building. To overcome the problems with the complicated design and cost exceeding of the station building, a new multi-criteria tender was set up which now included engineering. Because the original design could not be built for the available budget, candidates should now create a plan that was as close as possible to the reference design. In this case, knowledge resources also caused the choice of tender procedure, however this time it was the lack of knowledge during the first tender that led to a multi-criteria procedure in which market knowledge was implemented. As with the other case, relational resources caused for elaborate demands, however transferring engineering to the tender phase was a necessity in order to get the project built.

Mobilising actors, which was seen in chapter 2 as a crucial element to successfully improve places, is done in these redevelopment projects by tender procedures. Companies respond to this and take part, however the goals that procurers set cannot always be achieved, as is seen in Arnhem's first phase. In the redevelopment of the NSPs, the procurers aspire to remain as much in charge as

possible because of their interests, which leads to traditional selection procedures and leaves little room for influence on the plan development by the contestants. However, when specific knowledge is lacking on the procurers' side, the choice can be made to transfer these to the tender procedure and let private parties perform them. Because of the organizational structures that are present and the relational resources between Prorail, NS and municipality, adding another organization to the plan development is undesirable. A more extended procedure with a greater role for private organisations is therefore not ideal for the three procuring parties, who wish to remain in control.

Chapter 6 Quality of place in the selection procedure

This chapter focuses on quality of place again, now creating a link with the two cases and different selection procedures. First, the actors' view on quality of place is addressed. For both Breda and Arnhem, it is researched what the opinion of NS, Prorail, the municipality and the contractor on the quality of place elements (see paragraph 3.3) is. This view is described, however it does not mean that the actors behave according to their opinion on quality of place in the projects. This is due to the specific role of each organisation and the interests that result from their own objectives. The view on quality of place, combined with the role that each actor has is covered in the third sub question:

What are the interests of the actors in quality of place?

The previous chapter explained how selection procedures work. This knowledge is now combined with the actors' interests in quality of place elements in order to see how they are influenced by the selection procedure. From this, it will be clear if the actors are mainly concerned with elements that are relevant for their role in the process, or that a more comprehensive view as a part of the shift to a more collaborative approach is present. In the fourth research question it is therefore questioned if and how quality of place elements are determined by the procedures:

Which elements of quality of place are determined by the selection procedure?

This chapter is structured by these two research questions. For each case, the three quality of place elements are addressed separately. This way, the influence of the two used selection procedures is visible for every quality of place element.

Source: Arnhem Centraal (2012)

6.1 Actors' interests in quality of place

The procurers manage the redevelopment process and, as is seen in the previous chapter, choose how to organize the selection procedure. By doing so, they can influence quality of place elements personally or choose to grant influence on quality of place to private parties. Each actor can have its own view on quality of place, depending on the role in the process and goals that are pursued. For the two cases, these interests of all redevelopment actors in quality of place are covered here.

6.1.1 Breda

6.1.1.1 Diversity

As explained in chapter 3, diversity can be manifested though economic diversity, diversity of functions and diversity of people. While the first two can be directly planned and regulated, diversity of people is the result of these and the other quality of place elements. As the real estate developer and station owner, NS chose which functions would be present in the new building. NS is therefore highly influential on all aspects of diversity. First of all, NS determines economic and functional diversity. Functional diversity by choosing the uses that are present in the new building and their sizes. However, for selling and renting these locations out, NS is dependent of market situations and demand for certain functions (NSAD, 2012). Still, NS underlines the importance of functional diversity:

'*So plainly a diversity of functions, that is what we as NS are greatly in favour of*' (NSBR, 2012).

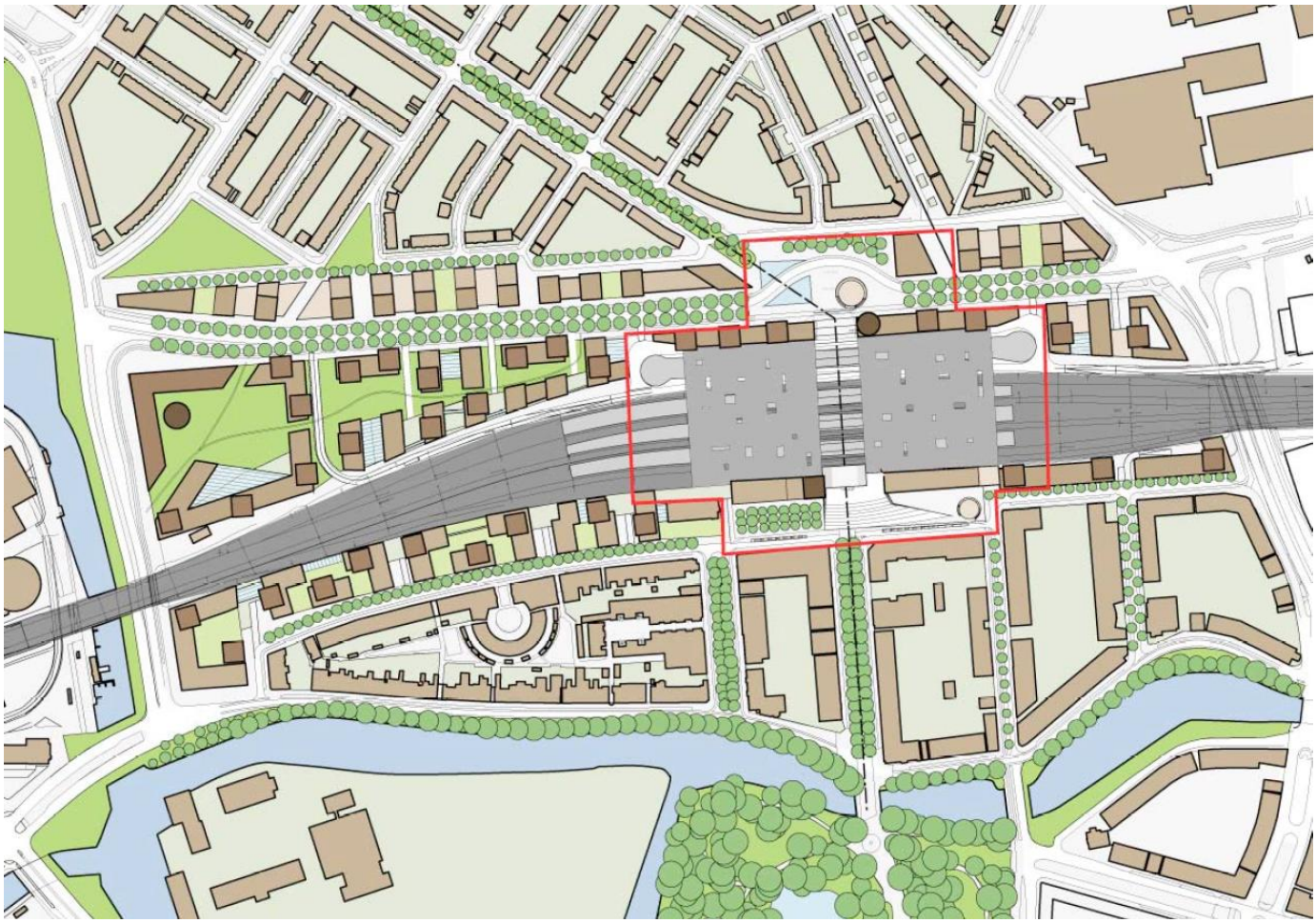
The reason for this is the safety of the passengers, which use the station at all times of the day. At the end of a working day, offices are deserted and a station area without other functions then lacks people to provide a watching eye, causing insecurity among travellers (see paragraph 3.3.1). As soon as people start avoiding the area and travel less at these times, NS is losing customers and revenues. In order to have people around that watch over the place, it is therefore necessary to combine offices and residences so at the time that people leave their offices, this role is adopted by the inhabitants of the houses (NSBR, 2012). The municipality confirms this view, and sees functional diversity as facilitating for diversity of people: '*the aim is a diversity of users and target groups*' (Gemeente Breda, 2005, p. 20). Liveliness by realising different functions which operate at all times of the day is a prerequisite. Therefore it is seen as essential that the other parts of the masterplan will be developed later on, which is the responsibility of the municipality (MUBR, 2012). Increasing the diversity of people in the area is a goal of the redevelopment, mainly set by the municipality. This is elaborated by planning functional diversity, which would increase diversity of people as more people use the station for other needs than just travelling. By far the greatest number of people using the area will still be travellers, however this is also a highly heterogenic group (MUBR, 2012).

In terms of economic diversity, NS chooses the retail programme in the station hall, which is mainly determined by the spending behaviour of travellers at each station (NSBR, 2012). The retail programmes that generates the most turnover per traveller is realised. This influences economic diversity, however economic diversity is not a goal in itself. The municipality's goals on diversity are also mainly based on diversity of functions and people, less on economic diversity. An exception is that is argued that the project should create a business district within the station area, with room for specialised upper-market retail (MUBR, 2012). In general, the municipality strives for a coherent range of functions, but does not exert much influence on the economic diversity.

The other two actors, Prorail and the contractor, indicate that diversity of functions, economy or people is not in their interests. Prorail is responsible for the transfer of passengers to and from the trains and does not plan for diversity (PRBR, 2012). Prorail owns the shops that are present at the railway tracks itself, but lets them out to NS and therefore doesn't influence economic of functional

diversity with these locations. The contractor agrees with the goals on diversity that are displayed in the policy and redevelopment plans, but indicates that the diversity isn't of his concern (TC 2, 2012). The contractor builds according to the instructions he gets, therefore when a traditional building contract is used, the initiator's goals on diversity should have been translated into the specifications and conditions beforehand.

Figure 6.1 Development plan of Via Breda



Source: Gemeente Breda (2004)

6.1.1.2 Integration

Integration also consists of three aspects: spatial, functional and mental (see paragraph 3.3.2). Spatial integration, the accessibility of a place in relation to its surroundings, is an important issue in this redevelopment project. NS, the municipality and the contractor admit that the station in the situation before redevelopment is a barrier that causes fragmentation (MUBR, 2012, NSBR, 2012, TC 1, 2012). On the north side of the station the neighbourhood Belcrum is present, a residential area that mainly consisted of public housing, but where gentrification has taken place over the past few years. On the south side, a walkway through a park leads to the city centre. The existing station is seen as a physical barrier between the north and south side of the station (Gemeente Breda, 2012, NSBR, 2012). Municipality, NS and the contractor all indicate that redevelopment is necessary and that it is the solution to this physical fragmentation. For the municipality, recreating the links between the Belcrum and the station area starts with connecting all existing roads to the new square on the north side (MUBR, 2012, see figure 6.1). Then, the connection to the city centre should be re-established with a recognizable walkway. NS agrees with this because it is in their interests:

‘*So […] we are always talking to the municipality about station areas. Because we attach value to it, the passenger’s journey doesn’t start when he enters the train, not when he enters the station, it actually begins at the moment he leaves home*’ (NSBR, 2012).

Travellers’ experiences are influenced by the whole station area and its surroundings, therefore NS is involved in more than just the station itself. In order to keep their customers satisfied and attract more people, spatial integration is relevant for NS. The contractor sees integration as a problem in the old station, but states that in this case he has no influence on integration (TC 2, 2012). While this is true for the final situation after redevelopment, which is created by plans of the procurers, the contractor influences integration during the building process. During the dialogue phase, the details of construction planning were discussed between the procurer and contractor. The procurer had already decided on the entire planning and logistics, but the contractor saw possibilities for more efficiency and created its own plan, which was adopted and implemented (TC 1, 2012). The contractor influenced spatial integration here by speeding up the process, keeping the area accessible and plan works in a way that cause the least nuisance for the environment. In the case of Breda the new station is constructed on the north side, which was an undeveloped lot between the station and residential area (see figure 6.2). When this part of the station is finished, functions which are now located on the south side move to the north permanently. Next, construction moves to finish the southern part. This way, an area that was already inaccessible is used for construction and no problems on spatial integration are added, which can be the case during inner-city redevelopments.

Figure 6.2 Northern building site at beginning of construction, August 2012

Source: Author

The redevelopment adds new functions to the station area and expands existing uses. The municipality stresses the importance of creating a second city centre that is connected to the existing historical centre. A centre function is more than just a transportation hub: redeveloping the station into an actual place to stay instead of just transfer is an important goal of the project (MUBR, 2012). The municipality is therefore concerned with functional integration of the station and sees adding amenities to the area as the way to improve the area. Also, redesigning the traffic routes around the station and relocating the bus station highly influences functional integration. The current dominant function, public transport, will remain in the area and with the expected 57,000 daily visitors stay the largest attractor of people. Interaction in the area is therefore increased through the new and expanded functions, but will mainly be present because of the transportation function. While the goal is to create a second centre, the project is not meant to replace current retail functions in the existing centre and draw people from it (NSBR, 2012). Functional integration will consequently remain focused on transportation, though the number of uses rises and the railway function is improved by adding a high speed service.

At the time when the first plans were drafted, in 1994, inhabitants of Breda caused resistance against the redevelopment, founded a political party and halted the plans at that time (MUBR, 2012). Mental integration, the way that people perceive places and surroundings, played a key role here. Fear of fragmentation in terms of generating a greater barrier between the two areas on both sides of the station than before was high. NS and the municipality had the opposite perception of mental integration during the process: redevelopment was expected to create a connection between the areas instead of an obstacle (NSBR, 2012). After it was clear that Breda would be part of the high speed train network, plan development recommenced, now with the lessons learned about the citizens' fear of fragmentation and power to obstruct. Creating a station that would connect instead of separate the areas was key, along with communicating this image to the citizens. Public support was necessary throughout the process and taken seriously after the first failed attempt to redevelopment.

6.1.1.3 Public space

'*The arrangement of public space determines a great deal of the quality of life and attractiveness of the new urban area in Via Breda'* (Gemeente Breda, 2005, p. 37).

Developing qualitative public space is considered highly important for the municipality (MUBR, 2012). For both of the roles that the municipality covers as a party with public and private interests, public space is relevant. Firstly that of a public party which manages the city for its inhabitants. The inner city has been redesigned to create a high quality place to stay. As is stated in the previous paragraph, it is attempted to create a second centre, so this level of quality of public space is demanded to be continued in the station area. Public space should be the '*business card of the area*,' (MUBR, 2012) which is also in the municipality's commercial interest. In the role of owner or private developer of the lots around the station, having an attractive area for potential businesses increases the chance that they will locate there (as explained in chapter 1 and 3). Considering the fact that there is a large area of post-industrial sites to be developed which are partly owned by the municipality, it is natural that maximizing the quality of public space in order to attract investors is a priority. Public space is therefore crucial for the degree of success of the whole redevelopment project (MUBR, 2012).

As is apparent from the previous paragraph, NS is concerned about the traveller's whole journey, so the public space around the station should be of high quality (NSBR, 2012). The area around the station is seen as a place to stay, so seating is important, next to amenities such as bicycle parking and kiss and ride places which are relevant for train travellers. The design of public space influences the safety of people in the area, for instance through lighting and location of functions and walkways. In order to satisfy customers, places that entail a feeling of insecurity or where actual crime takes

place are harmful for NS, when people decide to avoid the station in the evening the revenues will drop. Therefore influence on public space is required and taken, for instance through financial arrangements or agreements that cover the management of public space in and around the station integrally (NSAD, 2012). At the intersection of public space and integration, NS is involved in the routing to and from the station in order to facilitate the link between the city and the railways. Public space is therefore an instrument of functional integration: a way of guiding train travellers through the area in while also providing a qualitative place to stay. Similar to the municipality, attracting businesses and residents to the new station building is also urgent, for which an attractive public space is advertised as a reason to locate. For both the activity as transport company and real estate developer, public space is of NS's interest.

For Prorail, the goals on public space are highly functional. Being responsible for the transfer between different modes of transport, walkways should be well accessible and safe (PRBR, 2012). The actual design of public space in terms of amenities and appearance is not of concern, as long as there is enough transfer capacity and walkways are safe. More so than for NS, public space is a way of facilitating functional integration. The difference here however is the fact that Prorail doesn't have a commercial interest and is therefore concerned with meeting the quality levels of their basic responsibilities and less with appearance and the communicative aspects of public space to the outside.

By building according to the predefined terms and conditions and not participating as a project developer, the tender candidate didn't have interests in public space other than building it (TC 1, 2012). Though there is an opinion of the programme and public space that is thought of by the procurer, it is not in the contractor's interest to question this. When asked if the contractor influenced public space, the answer was:

'*No, it doesn't make sense to discuss about whether you find the station useful or not*' (TC 2, 2012).

Revenue is generated by building activities and in a price only procedure, it is just a matter of calculating the required price and possibly building it for that amount. For instance in Arnhem, the contractor also indicates that for less money, a 'boxed' station hall could be built, but as discussing the design is not part of the procedure, this didn't happen (TC 2, 2012).

Source: Arnhem Centraal (2012)

6.1.2 Arnhem

The actors in the process all have a general interest in certain quality of place elements through the role of their organisation. Some aspects of quality of place can however be project specific and therefore differ in each redevelopment project. Here, the interests of the actors in the multi-criteria selection of Arnhem Centraal are addressed. In order to avoid repetition and reveal differences between the cases, general interests that have been covered in the previous paragraph are omitted. As explained in chapter 4, in-depth data collection could not take place for the municipality of Arnhem. Therefore, the municipality's interests are based on policy documents and statements of other actors.

6.1.2.1 Diversity

'*The intersections of the mentioned axles of urban activities with the infrastructure of main roads, light rail, railways and high quality public transport (HOV) are suitable for urban nodes. These are concentrated places of urban intensity with a strong mixture of functions and a qualitative public space*' (Gemeente Arnhem, 2001, p. 29).

The municipality addresses functional diversity in their vision: the station is a place where diversity is desired, in combination with public transportation. Further elaboration explains that the redevelopment of Arnhem Centraal with its new programme is key to becoming an *'international network city*' (Gemeente Arnhem, 2001, p. 50). Functional diversity is crucial and mixed land use is a key point of the project. Two landmarks, the office buildings next to the station, are now in use so part of this vision has already been realised and diversity of people is increased through the employees. Economic diversity isn't addressed specifically and is left to the developers of the lots around the station.

In Arnhem, NS didn't develop an extra real estate programme as was the case in Breda. The retail surface was however increased, for which a financial contribution to Prorail's budget was given (NSAR, 2012). In terms of functional diversity, more retail was added to the station hall. In the future, more offices could be developed next to the station, when the demand for office space rises again. In both cases, the functional programme is in NS's commercial interest: retail space is added because more revenues are to be expected, offices will be developed to create profits. NS indicates that the main focus is the train traveller and that retail is secondary, while the role of real estate developer is already diminished compared to previous years (NSAD, 2012). The commercial interests as a store owner don't necessarily conflict with this: as long as the walkways are well visible and accessible, adding stores is seen as an extra service for the traveller. Here Prorail's minimum requirements on the transfer function come into place again, during redevelopment Prorail makes sure that this is the case (PRAR, 2012). Apart from this, Prorail isn't concerned with aspects of diversity, as well as the contractor.

6.1.2.2 Integration

Arnhem's station area is situated in an area with (in Dutch perspective) high differences in elevation, which could pose difficulties of spatial integration of the project into the natural landscape (Architectenweb, 2005). The architect responded to this by creating a design that embeds these slopes and uses the lower areas for bicycle and car parking, on top of which the station hall, shops and offices are located. These functions are less sensitive for barrier effects because they are supportive to the other uses: without trains or offices, parking would not be necessary. Fears of creating a barrier effect through redevelopment were absent in this case because the neighbourhood behind the previous station was already situated on a hill above the station without direct access. Visitors to the station either access through the main hall on the south side, or a footbridge on the west side. Though both the station building and the footbridge would be replaced, accessibility after finishing of construction would not be deteriorated. The municipality also emphasises spatial integration of the station into the city:

'*[…] there is an important task in improving the quality of public space and enhancing the green character of the waterfront, providing good traffic infrastructure with segregated bus lanes and the link of the project Arnhem Centraal to the city centre*' (Gemeente Arnhem, 1997).

By adding extra tracks to the station and increasing the capacity of the bus station, the transportation function of the area is reinforced. Though offices and retail are added, transportation will remain the unique function of the area by providing national and international railway services and a regional bus station. In the temporary situation, spatial and functional integration were highly problematic (see paragraph 5.3). Spatial because of the long walkways and bad accessibility of the railway tracks, functional because of the layout and location of the shops, which caused congestion of the walkways (NSAD, 2012). This had huge effects on mental integration in terms of appreciation of the station and number of travellers (NSAR, 2012, EXP 4, 2012). On the other hand, because the problems were so serious, the urge for redevelopment was gigantic, which eased the availability of extra funding.

For the contractor, integration was not an issue during plan formation because it wasn't included in the selection procedure. However, during the building process the contractor has a great influence on integration in terms of accessibility (spatial), temporary inaccessibility of transportation modes (functional) and nuisance (mental). In the consultation phase, integration was addressed. The procurer handed the rules to the contractor, who had to create its own logistical plan that was adjusted to the building process (TC 1, 2012). During the selection phase the implementation of temporary measures was only necessary to generate a price, later on during the consultation phase the actual situations had to be thought of. As the procurer, Prorail tested the contractor's plans to see if they complied with the rules on safety and accessibility. For the final situation, Prorail isn't concerned with spatial integration, as long as the station is safe and accessible (PRAR, 2012). Functional integration is a matter of concern for Prorail because of its responsibility for the transfer of people between the trains and other forms of transport. However, this is only the case in the railway station itself.

Source: Arnhem Centraal (2012)

6.1.2.3 Public space

The architect Ben van Berkel highlights the importance of the quality of public space in the redevelopment project:

'*In the design of the station area the pedestrian has a central role and by ingenious multiple use of space a public construction is designed in which aspects as social safety, short connections and clear lines of sight add to a high quality public space*' (Architectenweb, 2005).

Developing stations into attractive and comfortable places while improving efficiency and capacity is key in both regional and municipal policy. Railway stations should provide qualitative places to stay, next to other amenities for travellers and well accessible information (Stadsregio Arnhem Nijmegen, 2007). This is confirmed by the budget that was allocated to the project: for much less a station hall could be built with the same functionality but which would be less of an architectural statement (TC 2, 2012). By owning several lots around the station that are to be developed in the future, the need for qualitative public space as a location factor is present, similar to Breda. For NS, the goals on public space are similar too: creating a safe, comfortable place for travellers with many functions that is well accessible (NSAR, 2012). Like the municipality, NS also plans to build another office building, so public space is also in the interest of real estate development.

Similar to Breda, the contractor indicates that discussing the layout of public space was not useful (TC 2, 2012). Discussing this with the procurer didn't take place because it was not part of the tender procedure and therefore not in the interest of the candidate. Dealing with vague or incorrect details of the design was already highly time consuming, by questioning a higher conceptual argument such as public space the process could be delayed. The only influence that the contractor had on public space was the materialisation of the building elements which was included in the multi-criteria selection procedure. However, it was in the interest of the contractor to match the reference plan as closely as possible, so changing the plan was avoided unless it was strictly necessary (TC 1, 2012). For Prorail, the mentioned functional principles were leading in public space, the actual layout was left to the architect (PRAR, 2012).

6.2 Quality of place elements in the selection procedure

In the previous paragraphs, the interests of the actors in quality of place elements were addressed. Evidently, the actors' interests result from their role in the process: the procuring parties are concerned with their responsibilities (e.g. citizens, travellers, retail) and the tendering candidate is concerned with plan elements which are part of the selection procedure. This last part is of concern in the fourth sub question, however a preliminary answer can already be generated after reading the first half of this chapter. Still, the remaining sub question is addressed here in order to completely answer it and create a base for recommendations.

6.2.1 Diversity

While diversity is addressed by several of the actors in the process, no elements of diversity are part of the selection criteria in any of the cases. For Breda, a price-only procedure achieved its goal: creating competition between the contractors and build the project for the lowest possible price. The only assessment method in this was monetary, so the aspects of diversity that were included in the whole redevelopment plan were determined beforehand by the procuring parties.

In the multi-criteria procedure, the elements of assessment were design & materialisation, management & maintenance, planning and share of costs and risk (see table 5.4). The functional programme of the station was already determined before the start of the tender procedure, so functional and economic diversity were not influenced by the contractor. The resulting diversity of people was not caused by the selection procedure, however the whole redevelopment process could be an accountable factor in the people that use the station and its functions. The temporary situation was problematic through the location and layout of the walkways and station hall, received great criticism and caused the number of travellers to drop. People chose to avoid the station and travel by bus or use a different railway station (EXP 4, 2012). While for some this was a possibility, for instance people on a leisure day trip, daily commuters didn't have this option. Though no exact figures are present, it is possible that the relative share of commuters increased. Of course, commuters are still a highly diverse group of people so conclusions on this are difficult to formulate. Redevelopment was however an improvement: after the first phase of redevelopment in which the underpass was completed, travellers' appreciation of the station rose sharply (NSAD, 2012). The selection procedure itself was nevertheless not of influence on this situation, but in the negotiation phase it was now highly emphasised how the contractor would have to deal with the temporary situation.

6.2.3 Integration

In Breda's selection procedure, integration was addressed during the dialogue phase by discussing the accessibility of the station during construction (TC 2, 2012). However, this wasn't a criterion of selection: price was the only element on which the choice of contractor was based. The selection procedure itself therefore didn't influence aspects of integration (NSAD, 2012).

The same situation occurred in Arnhem: while no direct elements of diversity were included in the assessment, during the consultation phase the temporary integration of the station into its surroundings and accessibility were addressed. Still, one criterion was of influence on the integration: planning. This was assessed by attaching a score to the number of days that construction would last, a longer building process resulted in a lower score. Therefore, the tender candidates were challenged to shorten their building process as much as possible. By reaching the final situation faster, spatial integration would be reduced because the station is better accessible than in the temporary situation. A shorter term of barrier effects because of the presence of a construction site would also be the case and mental integration improves through the completion of the station after many years of inconvenience: *'With regards to integration with the surroundings, in Arnhem you get the impression that if there is a giant construction site for five years you won't score points at that level'*

(EXP 3, 2012). Including planning into the selection procedure therefore influenced integration: not in terms of plan content, but through speeding up construction and encouraging the tender candidates to complete the redevelopment as fast as possible:

'*On the one hand, Arnhem makes that role for the contractor very easy because of the giant mess they made over the past five years so worsening it is impossible. But for the contractor it is of course a challenge because everybody avoids that area now because they all know that it is miserable. So getting those people back is a bigger challenge*' (EXP 2, 2012).

6.2.4 Public space

In chapter 3, it was stated that of the quality of place elements, public space could be influenced most by urban planning. In the cases, much attention is paid to public space and it is used as a method to serve wider goals than just aesthetic (see previous paragraphs). However, the question is if private parties could influence public space through the selection procedure. In the tender of Breda, public space itself was not included as a distinguishing feature. As is seen in the previous quality of place elements, ideas on public space were transferred into the specifications and conditions that the tender candidates received and influence on the design or layout of public space by the private parties was not requested.

'*The public space that is within the construction area can either look very miserable or can be at a constant high level*' (EXP 1, 2012).

Again, the temporary situation influenced public space and this was discussed during the consultation phase, however it wasn't part of the assessment. In the multi-criteria tender, a score was assigned to design & materialisation. The challenge for the tender candidates was to approach the reference design as close as possible, therefore influence on the design and appearance of the materials should be to a minimum. There was a major change in the construction method that influences the design: the change of building material from concrete to steel. The other aspects of materialisation weren't changed from the reference design (TC 1, 2012). The layout of public space and location of public facilities had been carried out by the architect so the procedure had no consequences on the urban design. The only visual aspect that influences public space that is influenced by the selection procedure is therefore the change of building material. This is due to the nature of the scoring model, in which deviations from the desired outcome decrease the chance of winning the tender.

6.2.5 Temporary situations

'*And what you see is that the place making is actually entirely organised into the design, even the design & construct. The major part of Arnhem is already finished before the actual design & construct, it is not a matter of […] just hoping the best. What you do see is that the contractor can increasingly take influence on the temporality*' (NSAD, 2012).

It is now clear that the selection procedure types which were used for the cases had very little influence on quality of place of the railway stations after redevelopment. However, in this and the previous chapter, it has been mentioned that in the consultation phases the situation during the building process is deliberated between the procurer and contractor. This is due to the complexity of station locations: trains are still operating, retail remains present, offices need to be accessible and thousands of people walk by the construction site daily. Highly detailed agreements therefore had to be made in order to make sure that all functions would operate as close to normal as possible, with the least nuisance. In the debate on temporary situations, the actors' interests from the beginning of this chapter are present similarly. For Prorail, the availability of the railway lines and safety were the most important aspects (PRAR, 2012). In Breda, this aspect was even more important for Prorail

because the building would be partly constructed over existing railway lines, while in Arnhem's second phase the building is situated next to the tracks. Therefore in Breda the contractor's freedom on this aspect was more limited than in Arnhem (TC 1, 2012).

The problems that the temporary station in Arnhem caused, worsened by the amount of time that the whole redevelopment took, was a warning for NS and became the initiator of new policy that highly stressed the importance of the station during the building phase (NSAD, 2012, NSAR, 2012, EXP 4, 2012). Also, because of the presence of the NSPs, through which six of the largest station areas in the Netherlands would become a construction site at the same time and for several years, temporary situations were considered a priority and sees possibilities for involving the contractor in this:

'There was a focus [during the selection procedure] on the fact that the station remained open, so think about that. On other railway stations you can bring that forward much more. The malfunctioning of the station and loss of travellers can cost much more over time than the one percent that one contractor is cheaper than another' (NSAR, 2012).

NS and Prorail jointly developed a vision on how to deal with stations during construction: SITS (Stations In Temporary Situations). This is a standardised system, based on the 'station concept' of guiding passengers through the station area by dividing it into several domains which are each visited when someone travels by train: surroundings, departure, travel and reside (NS et al, 2012). Similar to Maslow's needs hierarchy (see paragraph 3.2), train travellers first need safety and reliability. Next, the speed and convenience of the trip are of importance and finally comfort and experience. Each domain needs to cover specific needs (and at least the basics of speed and convenience), for instance the departure domain needs to contain travel information, which is indicated by blue surroundings (see figure 6.3). NS uses a checklist on each station that is under construction in order to judge how stations perform on each level of a passenger's needs. During the tender procedures of the cases, no criteria on temporary situations were assessed. The contractor indicates that assessing temporary situations in the selection procedure is a possibility for the future (TC 2, 2012). Therefore, this is further covered in the recommendations (see paragraph 7.3).

Figure 6.3 Temporary situation Amsterdam Centraal

Source: NS et al, 2012

6.3 A collaborative approach?

In chapter 2, it was stated that planning is moving towards a more collaborative approach in which the government acts less as a manager and more as a facilitator. The institutional capacity of a coalition, in this case Prorail, NS and the municipality, indicates to what matter it is successful in achieving results. Three elements were mentioned: knowledge resources, relational resources and the capacity for mobilisation.

In the previous chapter, it was explained that the lack of knowledge resources on the procuring side caused a greater involvement of private parties than originally planned. However, on other aspects knowledge resources weren't a crucial influence on the redevelopment plan and quality of place. This is because the main function of the projects remains present as a location for transportation. Though functions are added and further area development takes place, the need of increasing railway capacity and upgrading the station was supported by all actors (e.g. MUBR, 2012, NSBR, 2012, PRAR, 2012, TC 1, 2012). Each actors' knowledge could be used for the role they had, for instance knowledge on the interests of travellers for NS and building process knowledge for the tender candidate. This corresponds with the interests of the actors in quality of place, which are very much in line with the role that they have in the process (see paragraph 6.1).

While knowledge resources are merely a given element of the process, relational resources had a much greater influence on the redevelopment process. In terms of quality of place, this might not seem very influential at first because the redevelopment plans were created jointly by the three procuring parties. However, the whole process from the start of plan development until the start of construction lasted many years in both of the cases, resulting from contractual and cultural difficulties between the procurers (NSBR, 2012, PRAR, 2012). Difficulties in relational resources delayed completion of the two redevelopments:

'*The weird thing is that Prorail, NS and municipality are still three parties who have great difficulties collaborating and there is a lot of suspicion and misunderstanding*' (NSBR, 2012).

Now, quality of place is influenced by relational resources because of the persistence of a problematic situation: in the case of Breda the old station and in the case of Arnhem the temporary station. Remarkably the shift towards entrepreneurialism, which is manifested in the separation of NS and Prorail, here leads to difficulties in planning practice. Still, in both cases a solution was found, though the difficulties in collaboration caused problems on the quality of place elements of integration and public space for some years.

Mobilisation of actors in the process has been addressed as well, and it is now shown that the involvement of private actors through tender procedures has worked out. However, this is highly dependent of the way that the tender is organised, which is visible in the first failed attempt in Arnhem and for instance in Den Haag (NSBR, 2012). Mobilisation itself wasn't problematic here: a private party signed up for collaboration. The outcome was nonetheless disappointing, but in the second phase mobilisation worked out successfully.

So where does this leave institutional capacity in the two researched cases? In the second chapter, it was explained that creating institutional capacity is a process that needs to develop locally and requires a long period of time. The NSPs were a huge task for the three procuring organisations and were all carried out approximately around the same time, so learning experiences were hardly present. Also, local development of institutional capacity was impossible because the NSPs are situated in different cities and for each of the municipalities redeveloping their largest station was no

daily practice. Involving private actors early in the process might have been desired through an entrepreneurial government style, however the interests of the three procuring parties were already complicated and even conflicting at some points, so agreement on that level was a priority (PRAR, 2012). From this, it is clear that institutional capacity in the redevelopment of railway stations is still in progress and a collaborative approach in the current projects isn't present yet. With regards to the interests of the three parties, it is not to be expected that this will change in the near future, as each actor is highly concerned with its internal goals which were seen as prerequisites in the projects, or as one of the procurers simply puts it: '*the force field is enormous*' (PRAR, 2012). Furthermore, the complexity of the location type calls for control to remain on the procuring side and therefore involvement of private parties at a late stage in the process, when the prerequisites have been elaborated into the plan. So a sense of collaboration first needs to grow between the procurers before a true collaborative approach which involves the market at an early stage can be realised. Recommendations for further projects, collaboration between the parties and elements of selection procedures can be found in the next chapter.

Source: Koen van Velsen Architects (2012)

6.4 Conclusion

This chapter covered the last two sub questions of the research. In the third sub question, the interests of the actors in quality of place were questioned:

What are the interests of the actors in quality of place?

The interests that the organisations have are much in line with the goals of their organisation. Prorail is concerned with the transfer function within the station, safety and accessibility of the railways. Diversity is therefore not a concern, as long as the functionality of the station isn't decreased. Spatial and functional integration can affect Prorail's responsibilities, therefore the levels of accessibility in terms of passenger flows and safety are stated contractually. On public space, the same situation is present: Prorail has no interest in the aesthetical aspect, as long as the fundamental principles are guaranteed, both in the final situation and during the building process.

For NS, the plurality of functions as real estate developer, store owner and transport organisation cause several interests in quality of place. A diversity of functions is desired in order to guarantee the safety of travellers during all times of the day and generate retail turnover. Economic diversity by means of differences in retail types is caused by NS's strategy, which determines which stores are located in each station. Diversity of people is not a goal in itself for NS. Spatial and mental integration on the other hand is considered important because of the way that their customers experience the entire journey, which causes for a natural connection from the city centre to the railway station. Public space is of great interest for NS as well, both for the comfort of train travellers and the prestige of the real estate programme which has to be sold.

The municipalities have the same view on functional diversity as NS and are proponents of a mix of functions in the station areas. Diversity of people is seen as resulting from functional diversity. Economic diversity is addressed in terms of high-quality stores and offices, because the municipalities are concerned with creating an image of an international business location. A shift from line-oriented infrastructure planning to an area-oriented approach is highly visible. Both redevelopments are seen as second city centres, though the dominant function remains transportation. Spatial integration is considered important through the connection from the station to the centre, which is the first introduction with the city for many people. Communicating mental integration of the project to the citizens is more important than previously for both cities. Creating high quality public space is both in the interests of the municipality's public role for the people and private role as developer, similar to the roles carried out by NS.

For the tender candidate and, further on in the process, contractor, diversity was not an interest. With integration of the projects after realisation the contractor wasn't concerned either. However, spatial and functional integration during construction received attention and was discussed in consultation phases. Therefore the contractor has an interest in spatial integration of its construction site and functional integration in terms of not interrupting the transportation function. Public space is seen a similar challenge: influence on the final design and layout of the projects is hardly present except for the materialisation of the multi-criteria case. Still, it needs to be accessible and safe during the building process, which is also discussed during the consultation phase.

In the second half of this chapter, the last sub question is answered:

Which elements of quality of place are determined by the selection procedure?

In the two redevelopment cases, the involvement of private parties happened in the final stage of plan development. In Arnhem, the market's knowledge was involved, but the engineering hardly had any influence on quality of place. It can therefore be stated that no quality of place elements were determined by the selection procedure because decision making on quality of place had already taken place beforehand. However, the tender candidates did have influence on quality of place during the building process, which was discussed with the procurer during the selection procedure. This was discussed between the procurer and contractor before the project was granted. However, it wasn't part of the selection criteria so different opinions from the candidates didn't lead to changes in the outcome of the tender procedure.

Looking back at Healey's collaborative approach, it is clear that tender procedures succeed in reaching potential development partners. However, a true collaborative approach isn't present yet, which is mainly caused by the relatively novelty of these large projects and difficulties between the procuring organisations during plan formation. Of the elements of institutional capacity, relational resources were most influential on quality of place during the redevelopments, because of the extra time that the process lasted and the problematic situations that persisted. The old or temporary station remained intact for longer, which caused troubles for passengers and delayed desired property increases. So, in line with the conclusion of the last research question, the influence of relational resources is mainly limited to the temporary situations.

Chapter 7 Conclusion

In this chapter, the conclusion and recommendations are formulated. Because each of the sub questions has already been answered in the concluding paragraphs of the corresponding chapters, they will not be covered here in detail. Instead, the main research question is answered based on the insights that the theoretical and empirical parts provided. The conclusion leaves opportunities for further research and improvements in the process, which are covered in the recommendations. Suggestions are proposed for further scientific research and planning practice of future redevelopment projects.

7.1 Conclusion

This research concerned the topic of quality of place and the way that selection procedures could influence its elements, through the main research question:

To what extent does the type of selection procedure influence quality of place in the redevelopment of railway stations?

In public policy, during the past decades much research has been performed on the way that the government should operate. A more entrepreneurial approach to policy in general and urban planning in specific was desired as a reaction to existing undemocratic modernist planning practices. Public actors should behave as if they were private organisations in terms of efficiency and competitiveness. A collaborative approach should lead to planning successes, based on institutional capacity which consists of knowledge resources, relational resources and the capacity for mobilisation.

Another trend is indicated in urban and regional planning: the growing relevance of quality of place factors for economic development and attracting the desired labour force. In terms of location factors, focus shifted from firms to people and from resources to quality of life of residents. Quality of place is an operationalisation of quality of life and applies it to locations by introducing its three elements of diversity, integration and public space. For planning, quality of place is relevant because it shows that quality of life and economic output can be influenced by altering the physical environment.

For six main railway stations in the Netherlands, the NSPs, redevelopment was necessary because of the arrival of a high speed train network, lack of capacity of the existing stations and external development opportunities. For the execution of the plans, private partners are mobilised through tender procedures, in which Prorail is the procurer and NS and the municipality are also involved on Prorail's side. The NSP tenders are either assessed on price or multi-criteria. For Breda, a price-only procedure was chosen because of the major financial involvement of NS as a real estate developer. NS therefore claimed the most influence on the project. Also, the long debate between Prorail, NS and the municipality led to such detailed demands that working them out into the specifications and conditions was inevitable. Further involvement of private actors in the plan formation would cause further complications, therefore market parties were only used for the execution of the building process.

In Arnhem a multi-criteria procedure was used in which the tender candidates were also responsible for the engineering of the project. The reason here was that a first price-only tender failed because of the complexity of the construction, and now the market's knowledge was necessary to find a solution on the materialisation of the building. Also, costs were limited by using a fixed budget. For

the NSPs, no extended selection procedures that included scoring criteria on the surrounding area of the station or real estate development were used and no DBFM contracts were used. This is because of the extensive demands of the procuring organisations, which were so specific that private involvement on the plan formation wouldn't lead to a better result.

Prorail is the procurer and is responsible for the operation of the railways and transfer function within the station. Its interests in quality of place are therefore mainly functional: safety and accessibility are the most important objectives.

In the process, NS has multiple roles as transport company, real estate developer and store owner. Diversity of functions is therefore desired because of safety for travellers and the development of property. Public space and integration of the station into the city is relevant for these roles: both for peoples' experience of the whole train journey and the prestige of the real estate programme.

The municipalities share most of NS's ideas on quality of place, as it is privately developing property near the station areas and has a public responsibility of creating a functional and aesthetic qualitative area. For the municipality's public task, mental integration for its citizens is also of concern as the station can be seen as a barrier.

In both cases, the tender candidates weren't concerned with most quality of place elements because it wasn't in their interests to start a discussion on them. In Arnhem, the contractor had some influence on quality of place by choosing the materials in which the station would be realised. However, as the challenge was to build as closely to the reference design as possible, changes in material s were limited to those necessary to generate a buildable design.

The extent to which the used selection procedures influenced quality of place in these projects is therefore very small, if not inexistent at all. Though in one case a multi-criteria tender was used, no scores were attached to elements of diversity or integration, only the materialisation of some public space elements was included. The type of selection procedure therefore didn't influence the quality of place of the railway stations after completion of redevelopment. However, the procedures did influence quality of place in two ways:

- In both cases (and in other NSPs) plan formation between the three procuring organisations lasted several years and relational resources were problematic. This caused the original situation to remain present, or in the case of Arnhem a temporary building. The delays in completing the projects therefore influenced quality of place in the cases, with Arnhem this was more problematic because of the problems that existed for travellers and consequently NS.
- The procedures both included a dialogue phase in which the building process was discussed with the preselected contractor. Here, planning and layout of construction could be deliberated. In case of Breda, ideas of the contractor were implemented that shortened the building process, causing the final situation to be reached earlier and therefore influencing quality of place.

Therefore quality of place wasn't influenced by the selection procedure types that were researched here. For the temporary situations, it was influenced by the whole process: diversity of functions and economic diversity were completed later because of the length of the procedure. Integration was most problematic through the temporary situation in Arnhem, though in Breda accelerated finishing of the contractor should lead to a faster realisation of functional and spatial integration of the new station. Faster realisation will also solve problems on mental integration, when people see the previous or temporary station as problematic. This is similar for public space: the duration of plan development of both cases caused the existing, problematic, situation to remain present for longer and faster completion could lead to earlier realisation of goals on quality of place.

7.2 Recommendations for further research

Attention for quality of place emerged halfway during the 20th century and generated mainstream attention again after Florida's publications. Therefore it is still a relatively new research subject in which much work is still to be done and many challenges lie ahead. After reading this research, it is clear that there are still plenty of different approaches to the subject that need clarification. Some of those are listed here.

- This thesis researched quality of place in the plan development and tender phase. However, it is unknown if all objectives on quality of place elements are actually realised after construction is completed. In both cases, it is intended to develop more lots around the station, though the demand for this is currently lacking. Also, it is unknown if the propositions that the contractor made on changing the construction plans which should ease the process have reached their goals. Therefore, it would be interesting to compare the cases again after construction is completed, in which the other NSPs can be compared as well. Possible research angles here are the implementation of quality of place objectives into the final situation and how lack of development around the station area influences quality of place.
- In October 2012, the Dutch government approved the new procurement law (Aanbestedingswet), which will be in effect from the beginning of 2013 (Rijksoverheid, 2012b). Tenders are now required to be assessed multi-criteria on EMVI-scores (EXP 2, 2012). A price-only selection is only possible when the procurer explicitly underpins why this is a better option. The implications of the new law for railway station projects is therefore an interesting research topic as is it shown that price only procedures were still used for the NSPs.
- In this thesis, the choice is made to research a specific location type: railway stations. This was based on the importance of the infrastructure system and the fact that many functions are combined in a relatively small area, which leads to a high-value location with many different actors with conflicting interests. The difficulties in the processes which are indicated throughout this thesis indicate that it will be hard to implement quality of place elements in the selection procedure of railway stations. If the influence of private organisations' ideas on quality of place elements on the outcome of the planning process is to be researched, therefore redevelopment projects for different location types could be used. This could be combined with contract and selection types that are not used for railway station redevelopments. Especially interesting are redevelopment cases which include more explicit quality of place elements in the assessment such as the integration of the project into its surroundings or quality of public space. On the topic of contract types, the angle could be how including maintenance in the procedure (with a DBFM contract) works out onto the project.

7.3 Recommendations for planning practice

After studying the cases, information on the course of the planning processes have been gathered. Through the interviews with the people involved, recommendations on the way that planning practices could take place in future projects are given.

First there are some recommendations on how to involve private parties more into the plan formation by suggesting elements that could be included in multi-criteria tenders:

- Communication with the people that live in the area around the project was indicated as problematic, especially in Breda where it even led to cancellation of the first plans and the creation of a new political party (MUBR, 2012). A possibility in improving communication with the citizens is including it into the selection procedure and attributing a score to it. This happened in the case of A2 Maastricht where a traffic tunnel was built in a residential area and the way that the tender candidates provided information to the public was part of the assessment (EXP 3, 2012). This way, the tender candidates were challenged to involve and inform the public of the plans. Also, part of the tender phase was a period of time in which the candidates had to display their plans to the citizens in a location near the project. The professionals that were part of the tender team had to be present to answer questions from the public, and for the candidates it was a way of testing the support for their ideas and gaining insights from the citizens. In the assessment, a score was attached to the way that the candidate intended to communicate with the public. Though Prorail indicates that the high amount of building processes and number of different (sub)contractors causes for a central approach to communication (PRAR, 2012), still elements of this procedure can be used, such as the 'office hours' for the public to view the candidates' ideas. In this case, it was highly valued by the tender team members: '*We got enthusiast reactions from the specialists, because they were sceptic beforehand, but afterwards thought it was very good. And also highly enthusiast about the consultation period, that they could just explain their plan and the proud that it brought along that they thought of this*' (EXP 3, 2012). Involving the public in the project during plan formation increases democratic legitimacy and decreases problems of relational resources as occurred in Breda when citizens obstructed the first redevelopment plans.
- On how to assess the involvement of stakeholders and many other multi criteria elements, a database is now under construction (EMVI-criteriabibliotheek) with objective methods and examples on how they were used in other cases (EXP 2, 2012). For future station redevelopments in which a multi-criteria tender is used, this database can be a valuable resource so no efforts are lost on reinventing the wheel.
- From the cases it is clear that the procurer doesn't want an earlier involvement of private parties in the plan formation. However, in the moments that the contractor could shed his light on the plans, this was valuable and resulted in a faster construction process. Therefore a compromise of private involvement is necessary throughout the tender phase. Involvement in the design might not be desired for large station areas, but early debates with contractors on how to build the project as clever and cheap as possible using a schematic design could expose the markets' ideas on and possible risks of the procurers' plans.
- In the most recent railway extension of the Netherlands, the Hanzelijn, only design & construct contracts were used for the entire 50 kilometre of railway line, tunnels and bridges. This was highly successful and completed on time and under budget (Koenen, 2012). The reason for this was that the contract included less detailed and more functional specifications. The tender for the bridge for instance consisted of a first round which was based entirely on design and included a maximum budget. In the final round, design

accounted for 60% of the scoring model, based on seven criteria. This produced an aesthetically very appealing design while maintaining Prorail's safety and construction standards (About Railways, 2010, pp. 47-48). Though design and construct contracts may not always be the best solution for railway stations due to the complexities of inner-city locations, it does indicate that involving the contractor in a greater deal of the process is highly valuable and that it is currently being applied in railway projects.

In this thesis, it was stated that the temporary situation of the station during construction influenced quality of place, mainly in terms of spatial and mental integration. Here, the mentioned recommendation of involving private actors in this can be elaborated:

- In a multi-criteria procedure, scores could be attached to how the contractor would deal with temporary situations and staging of the building process. In Arnhem, this was done proportional on building time, but in the future a vision on how is dealt with the temporary situation could be assessed through a scoring model that takes functional accessibility of the area into account, together with (audio)visual nuisance for travellers and citizens. Here, SITS can be used. For future projects, contractors can rent the materials from NS and place them around the construction areas (EXP 4, 2012). The panels and other used SITS materials can be deconstructed again and used in a next project. This way, public space remains organized. Also, the spatial integration of a construction site in the middle of a transportation hub is less of a problem because the walkways are clear and the building process is less of a distraction for people to find their way around. Though SITS isn't used in the cases, in other station projects it was implemented in the tender procedure, for instance in Eindhoven (EXP 4, 2012). Implementation of this into the contractor's planning is an option for the future, by taking the different domains of travel into account nuisance can be decreased and mutual understanding between the parties could be improved. Though this sounds vague, understanding and involving the domains can benefit the contractor when temporary situations are assessed in tenders, because the scoring criteria are based on the station concept that is used in SITS. For the contractor is therefore highly recommended to get familiar with SITS in further railway station projects. The great advantage of SITS is that it has been developed jointly by NS and Prorail, so the two railway organisations already agree on many elements of future procedures beforehand.

Next to the tender procedures that are used for the NSPs, new selection and contracting approaches have been developed recently:

- If a multi-criteria tender is used, assessment has to take place objectively and fair. However, as explained in chapter 5, there are several methods of assessment. For fair evaluation of the plans, guidelines are developed that prescribe awarding by value (Dutch: gunnen op waarde, EXP 2, 2012). This method converts the added value that the candidate delivers into a discount on the offered price and provides several other indicators of how to assess qualitative aspects. This way, the tendered lowest price is closer to the actual lowest price after realisation, while in other methods the lowest price could turn out to be much more costly because of lack of quality and disputes between procurer and contractor.
- Another recent development is the implementation of best value procurement (Dutch: prestatieinkoop). Here the tender candidate plans the whole project in the earliest possible phase: the award phase. Possible uncertainties of the project are addressed immediately and discussed between the procurer and tender candidate. Also, when during the selection phase it appears that the candidate doesn't fully comprehend the project, it is possible to select the second best candidate (Rijkswaterstaat, 2011). Currently, Prorail is running pilot projects that use best value procurement (Spoorpro, 2012). If these succeed in small projects, in the future best value procurement could be a possibility for railway station redevelopments.

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Appendix I Nvivo nodes

Table A1. List of Nvivo nodes.

Name	Sources	References
Citizens	7	11
Diversity	1	1
Choice of functions	5	5
Coherence of functions	2	2
Important functions	2	2
Influence	1	1
Other actors	2	2
Target group	3	3
Integration	1	1
Mental integration	2	2
Other actors	2	2
People from outside	4	4
Relation with surroundings	5	8
Scoring model	0	0
Organisation	0	0
Collaboration	6	11
History	3	7
Initiative	2	2
Inspiration	2	3
Learning points	1	1
Role	10	19
Other factors	3	4
Public space	2	3
Goals	5	5
Influence on whole area	1	1
Other actors	2	2
Quality of public space	1	3
Scoring model	1	5
Quality of area	5	8
Selection procedure	1	1
Approach	4	9
Collaboration	8	16
Contract type	3	3
Dialogue	1	2
Finance	2	2
Other approaches	2	2
Process	6	12
Reasons	5	10
Risks	1	1
Safety	2	2
Scoring model	6	14
Temporality	8	20
Travelers' experience	2	4

Appendix 2 Topic list

The interview questions in this topic list were used for the semi-structured interviews. Also, the list created a base for the topics that were discussed during the unstructured interviews

Interview questions

Blue: questions only for public/procuring parties
Green: questions only for private parties

General

- What is your function at the company?
- What is the role of the company in the project?
- Did you work together with other companies in this project?
- Which party was the first to come up with plans for redevelopment?
- Did you look at similar projects to gather inspiration? If yes, what did you learn from them?
- What are the most important qualities of the area?
- What did the project change about these qualities?
- What was your personal influence on these qualities?
- What was your organisation's influence on these qualities?
- What type of selection procedure was used during the tender phase?
- What is the main reason for choosing this type of selection procedure?
- What are secondary reasons for choosing this procedure?
- To what matter does the approach to winning the bid differ between different selection procedures?

Diversity

- What functions are important for the development of this area?
- Was diversity included in the scoring model?
- To what matter does this type of selection procedure offer space for ideas on diversity?
- Did you pay attention to ideas on diversity in the bid?
- What is your influence over the choice for these functions? What was the level of influence?

- What is the influence of other actors on the amenities in the area?
- To what matter is there attention for coherence of functions?
- How are ideas on diversity influenced by the other consortium party?

Integration

- Is there a specific target group of people for the place?
- To what matter is it a goal of the redevelopment for people to go outside of the place, and for people from outside to visit the place?
- What is the level of attention for the relation between the project and the surrounding area?
- Have specific measures been taken for the relation between the project and its surroundings?
- Was integration of plan elements included in the scoring mechanism of the selection procedure?
- To what matter does this type of selection procedure offer space for ideas on integration?
- Did you implement integration of the different plan elements in the bid?
- What is your influence on the integration of the project with its surroundings?
- What is the influence of the other actors on integration?
- How are ideas on integration influenced by the other consortium party?

Public space

- What are your goals on the public space in the project?
- To what matter does public space influence the whole area?
- Was the quality of public space scored during the selection procedure?
- To what matter does this type of selection procedure offer space for ideas on public space?
- Was the quality of public space taken into account in the bid?
- What influence do the other actors have on the quality of public space?