

# Iconic projects as catalysts for brownfield redevelopments

The developers' perspective towards the conditions of iconic projects that incite brownfield redevelopments

Master thesis, June 2019  
By Misha Gorter

 **TU Delft**  
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**“If we knew what we were doing, it wouldn’t be called research would it?”**

~ Albert Einstein<sup>1</sup>

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<sup>1</sup>. In *Natural Capitalism* (1st edition) by P. Hawken, A. Lovins & L. Hunter Lovins, 1999, Boston: Little, Brown and Company, p. 272.



# Preface

I started my graduation with a fascination for the huge Dutch residential demands that needs to be tackled by building 1.000.000 new dwellings before 2030. The question arose as to how this could be achieved. I dove into literature to search for opportunities, though the emphasis was mainly on the barriers. This motivated me to conduct research into opportunities that could contribute to answering this demand. Research showed that the biggest development challenge currently lies in (partially) vacant industrial and port areas within existing cities. The development of better places through architecture has sparked my interest early on. Also, the transformation of areas or even complete cities through individual architectural icons simply amazes me. This admiration for iconic projects is not only shared by me, but by many others. That in mind, combined with the first research findings, formed the starting point of this research. I managed to create a both very interesting as well as relevant goal that I wanted to achieve: to encourage the use of brownfield redevelopment potentials in the Netherlands by gaining a better understanding about the conditions of iconic projects that incite project developers to (re)develop. From September 2018, I started the exciting journey towards achieving this goal.

This has all been documented in this report, representing my thesis '*Iconic projects as catalysts for brownfield redevelopments*'. It presents my master graduation project for the Management in the Built Environment track of the MSc. Architecture, Urbanism and Building Sciences at the Delft University of Technology. More specifically, it presents a study on the influence of iconic projects on project developers' motives. Iconic projects appear to be able to incite project developers to (re)develop, but how? Could such projects (un)intentionally play a role in accelerating developments, thus answering the current residential needs? Within this thesis, I provide answers to amongst others these questions through retro- and prospective case studies on the brownfield redevelopments of the Wilhelminapier, Katendrecht and Merwe-Vierhavens. I am glad that this topic intrinsically motivated me. It provided the excellent opportunity to get in touch with many experienced project developers, but also to demonstrate how iconic projects can be strategically deployed in order to make the realisation of this 1.000.000 dwellings a little more feasible.

## Acknowledgements

Studying this topic for a year has been highly instructive, not to mention the research process itself. Conducting this research would not have been possible without a number of important people: my mentors, the interviewees and my dear friends and family. Hence, I would like to take this opportunity to express my sincere and deep gratitude for their support! In the first place, Wouter Jan Verheul, Hilde Remøy and Reinout Kleinhans for their major contribution to this thesis. Your guidance, criticism and field of expertise have been very valuable. Your critical questions have triggered interesting discussions that challenged me to truly have a critical and reflective stance towards my own work. I am very happy with the fact that the cooperation has proven to be fruitful and pleasant. Furthermore, I would like to thank my external mentors Tristan Kunen and Bas Muijsson. I am very glad that I had the ability to conduct the second semester of this research in cooperation with Brink Management / Advies. I appreciate your constructive support and all the opportunities you have provided to take my research to the next level. Not to mention, many thanks goes out to the interviewees and participants of the evaluation panel who took the time to share their valuable experiences. Without your input, this research would have been of no use. Your inspiring stories were a great source of motivation and your enthusiasm is much appreciated. Above all, a special thanks to my dear family and friends. To my friends, for your kind words in stressful periods and for making my student days unforgettable. To my parents and Jeroen for their wisdom, their understanding and their unconditional support.

I am happy to share my thesis with people in the field as well as with those that just find the topic as interesting and appealing as I do. Please, enjoy reading!

Yours sincerely,  
*Misha Gorter*  
Delft, June 2019



# Executive summary

## Introduction

Nowadays, more than half of the world's population (55%) is living in cities. The movement of society towards the urban environment, also called urbanisation, is a worldwide trend that continues to occur as the percentage will rise up to even 68% in 2050 (United Nations, 2018). This movement is clearly evident in the Netherlands too, particularly in the country's four major cities: Amsterdam, Rotterdam, Utrecht and The Hague. Due to the increasing growth, one-thirds of the total Dutch population is expected to be living in these four major cities in 2030 (CBS & PBL, 2016). However, the market currently takes up solely a quarter of the Dutch residential demands within the city centres (Verheul & Daamen, 2017). This generates the need for cities to further develop their urban areas and therefore large transformation areas must be addressed (Brink, 2017). Looking at the potential of un(der)utilised brownfield sites in the Netherlands, these areas deserve attention and priority in the short and medium-long term.

A new paradigm is to use iconic projects to stimulate physical transformations. They are often deliberately proposed by municipalities for their catalytic function, as they can generate economic and sociocultural spillovers and could encourage area redevelopment (Doucet 2010; Verheul, 2013). Research into the influence of iconic projects has been done for years already, however insights into the particular conditions that provide incentives for private real estate developers to (re)develop, is lacking. As a result, there is not enough knowledge available on operational level with regard to the conditions of iconic projects that have this beneficial catalysing character. Hence, this research aims to gain better understanding about what conditions of iconic projects could incentivise developers to (re)develop in brownfield areas (Figure 1). In line with this research goal, the main research question reads:

*What conditions of iconic projects could incentivise project developers to (re)develop in Dutch brownfield areas?*

## Scope

This research goes into brownfield redevelopments, supporting the motive of this research which is to speed up regeneration of un(der)utilised areas in existing cities. More specifically, this research focusses on brownfields in Rotterdam, as this city has plenty instructive cases of both successfully completed brownfields, brownfield redevelopments that are still going on and brownfields that are on the verge of being redeveloped. Since the case study areas are all located within the same country as well as city, the outcome of this research will be more valid given the fact that the political, economic and social context, which could effect the real estate developers' motives, does not contain major differences.

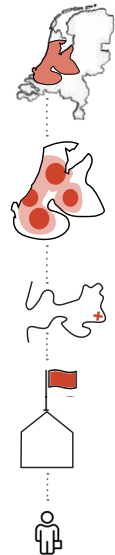


Figure 11.

The research scope.

## Methodology

As this research primarily focuses on incentives on (re)development decisions in brownfields caused by iconic projects, a qualitative research strategy has been applied. A literature review has been conducted first, in order to determine what is known about the key concepts of this research as well as to develop insightful and sharp subquestions for the empirical research. The conditions of iconic projects that could generate incentivising spillovers have been explored by doing three in-depth holistic case studies on brownfield redevelopments and their (iconic) project developments. These mainly involved document studies and semi-structured interviews with involved project developers and managers. A 'one of best practice' case has been conducted in retrospect, in order to better understand the catalysing effects of iconic

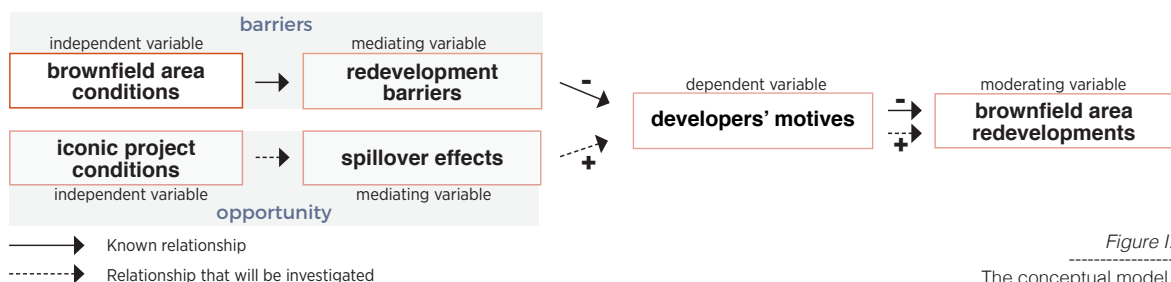


Figure 1.

The conceptual model.



projects by reflecting on its successes, being the Wilhelminapier. As sources of error due to confounding bias are common in retrospective case studies, the findings have been accompanied with a case study on a contemporary brownfield redevelopment, being Katendrecht. The results of these two case studies have additionally been used to draw implications for current and future brownfield redevelopments through the study of a case in prospect as well, being Merwe-Vierhavens (M4H).

## Theoretical framework

### >> Urban area development

According to Heurkens (2012), urban area development became the missing link between planning and the implementation in the Dutch context. The demeanour of governance in the Netherlands is experiencing an ongoing trend from first a liberal to a more neoliberal, in particular Anglo-Saxon, approach since the 1980s. This implies changing directions towards the decentralisation of government powers, in order to increase the role of the market and civic society (Heurkens, 2012). Today, urban area development is found in various sizes and shapes. The main differences found are in the location of the site, which is either within the inner-city or at outlying areas, and in the level of contamination of the site, which is either contaminated with potential (brownfield), contaminated without potential (blackfield) or not contaminated at all (holds for both greenfields and greyfields). Finally, a distinction can be made by the scale of the area development, which is either on urban level or on regional level. The further characteristics, approaches and processes differ depending on the type.

This research specifically goes into brownfield redevelopments within the inner-city, which focusses on bringing a lasting improvement in the economic, physical, social and environmental conditions of an area. Due to high redevelopment costs and challenges in getting financial support but also due to uncertainty in demand and liability regarding the remediation of the field, brownfield redevelopment is a complex task. It, however, is interesting for developers as it encourages investments, reduces urban sprawl and encourages recreation, creativity and creates green spaces.

### >> Iconic projects as a catalyst

Any special object that attracts people, draws their attention and surpasses the everyday can in principle be encountered as iconic. The degree of iconic value however, will differ regarding the intensity, support base and sustainability. Based on a multitude of literature sources, the definition of an iconic project within this thesis will be the following: “*Projects that (I) are*

*considered high-profile and prestigious both by experts from the field (II) as by the general public, (III) that provide a sense of uniqueness and identity to the environment and (IV) that function as a catalysts in the surrounding environment.*” (own definition). Projects must meet the conditions numbered within the definition in order to be classified as iconic. The first two conditions imply that a wide and diverse support base is present regarding its iconic value. The third one is self-explanatory and the last condition implies that the project should function as either a meaning creating, public attracting, trust gaining and/or history calling catalyst.

Many spillover effects can occur because of (the development of) iconic projects. They can be both economic and socio-cultural, however it is important to see where and at what scale level the spillover effects are visible. Both positive and negative impacts will (un)expectedly occur in urban developments, thus must be carefully noted too when assessing the impacts of icons. Hence, a clear overview of the main spillover effects of iconic projects has been provided (Table I).

Spillover effects of iconic projects	
 <b>Economical impact</b>	Increasing property values around the iconic project <sup>1,3</sup>
	Increasing revenues for local restaurants/stores/hotels <sup>1</sup>
	The emergence of new business activities <sup>1</sup>
	Employment growth <sup>2</sup>
 <b>Physical impact</b>	Stimulating private and foreign investments <sup>2</sup>
	Stimulating urban development, regeneration and infrastructure <sup>2</sup>
	Impact on residential and commercial property markets <sup>2</sup>
	Place-making <sup>2</sup>
 <b>Sociocultural impact</b>	Creates a more appealing view of the area <sup>1</sup>
	Attracting new, often wealthier residents <sup>3,5</sup>
	Gentrification <sup>3,5</sup>
	City branding <sup>2,3</sup>
	Being a symbolic and postcard value for the city <sup>4</sup>
	Increase in the housing demand in the area of the iconic building <sup>1</sup>
	Building social cohesion, community development and integration <sup>2</sup>

Table I.

Overview of the possible spillover effects of iconic projects. Adapted from (Verheul, 2013<sup>1</sup>; TFCC, 2015<sup>2</sup>; Evans, 2003<sup>3</sup>; Verheul, 2014<sup>4</sup>; Doucet and Van Weesep, 2011<sup>5</sup>).

### >> Real estate developers' motives

This research uses the private real estate developers types distinguished by Nozeman and Fokkema (2008), as they focus on the Dutch market and therefore are most relevant for this thesis. The distinction is moreover supported by Heurkens (2012) and several master theses from



the Delft University of Technology, in contrast to the distinction that is made by Boyd and Chinyio (2006). The developer type 'others' however is left out, as this type is too broad and therefore their motives could not be generalised. Motives, which are equivalent to intentions (Anscombe, 2000), of these developers' types haven been assigned with help of amongst others the above mentioned literature sources (Table II).

The independent developer	The contracting developer	The investing developer	The funded developer
To create a profitable development by obtaining maximum yield against a manageable risk level			
Develop because they believe they could offer the best price/quality ratio at a tender			
Develop because they think they could be the highest bidder for land			
Sees a healthy, often short-term business case in a certain piece of land/property - <i>could be at own initiative and risk</i>	Sees a healthy business case that immediately provides a construction project for them-selves - <i>could be at own initiative and risk</i>	Sees a healthy, long-term business case - <i>could be at own initiative and risk with the financier's capital</i>	Sees a healthy, long-term business case - <i>could be at own initiative and risk with the financier's capital</i>
Develop as they see the chance to realise their niche products or personal, specific approach	Develop as they see the chance to realise their niche products or personal, specific approach	Develops to ensure and increase yields of real estate for the portfolio of the institutional investor	Continuously develops to create turnovers for its financiers
Develop as requested by a customer's specific needs	Develop as requested by a customer's specific needs	Develops and retains property in portfolio for a continuous cash-flow	Develops and retains property in portfolio for a continuous cash-flow

Table II

Motives per type of private real estate developer.

Based on the literature findings, the conceptual model has been operationalised (Figure III). This framework functions as the foundation for the empirical research.

## Empirical research

The Wilhelminapier, Katendrecht and M4H are all old harbour areas close to the city center that transformed from dynamic to abandoned areas

and now aim to stimulate the economy. Though, they all have a different particular focus. The Wilhelminapier focusses on the service-economy, Katendrecht on *the 3 c's* (culture, creativity and culinary) and M4H on manufacturing. As a consequence, the iconic states of all iconic projects derive from different qualities in each case study location. Also, the brownfields either are or have been redeveloped with clearly different plans and levels of control by the municipality, ranging from very concrete plans and dominant control (Wilhelminapier), to joint public and private commissioning and controlling (Katendrecht), to no blueprint of the urban plan and hardly no restrictions (M4H). The plans aim for different images and different scales. The Wilhelminapier focuses on high-rise buildings with international allure, while Katendrecht focuses on strengthening the rough and tough image on national scale. The focus of M4H is on receiving an image as pilot area for innovative manufacturing on international scale.

What they have in common is that they all have attractive sociocultural characteristics that refer to the history of the area, providing character and identity to the area which is highly appreciated by both users and developers. Physical characteristics that visibly refer to the history of the area, incentivised developers in all cases. Moreover, all functions of the iconic projects on the case study locations have demonstrably contributed to incentivising project developers. The attractive image demonstrably incentivised developments on areal level, rather than on project level. Most incentivising features of the location condition have more to do with its infrastructural accessibility, rather than the location of the iconic project. Though the fact that a plot overlooks the iconic project could be incentivising developments on that particular plot too. No particular scale of iconic projects has demonstrably incentivised developments, however, the spillover effect of large-scaled projects, bringing life into an area, does contribute to the motive to develop. Fame of multiple architects incentivised project developments on the Wilhelminapier. The fame of one architect for a single project has not demonstrably worked as an incentive for project developers to (re)develop.

redevelopment barriers	spillover effects	brownfield area conditions	iconic project conditions	brownfield area conditions
uncertainty regarding liability	increasing property values	fallow urban area	location	to obtain maximum yield
uncertainty regarding remediation and construction	increasing revenues	influenced by anthropogenic activities	physical characteristics	foreseeing a healthy business case
uncertainty regarding monetary costs	emergence of new business activities	potential for redevelopment	functional characteristics	chance to realise niche product/service
high redevelopment costs	employment growth	cultural and historical qualities	sociocultural characteristics	highest bidder for land
long and costly clean-up and site assembly	stimulating investments	currently not fully in use	development process	realistic chance of winning a tender
biological, physical and chemical impact	stimulating regeneration + infrastructure	requires interventions for new use	fame of the architect	to realise a continuous cash-flow
ownership patterns	impact on property markets	located within inner urban agglomeration	image	to increase/ensure yields for investor
aging urban infrastructure	place-making	present infrastructure and utilities	scale	
perception of crime	more appealing view of the area		uniqueness	
challenges in obtaining financial support	attracting new, often wealthier residents		innovativeness	
	gentrification			
	city branding			
	symbolic + postcard value for the city			
	increase in housing demand			
	community development and integration			

Figure III.

Operationalisation of the variables of the conceptual model.



## Conclusions

After conducting document studies on the brownfields redevelopments and semi-structured interviews with project developers and managers active in the case study areas, incen-

tivising conditions of iconic projects could be identified. All pre-defined conditions of iconic projects have incentivised real estate developers and thus all pre-defined conditions contribute to catalysing surrounding developments.

### incentivising conditions of iconic projects on brownfield redevelopments

Most effective	 <b>Functional characteristics</b> <ul style="list-style-type: none"><li>• <b>commercial, infrastructural and innovative mixed-use functions:</b> projects with such functions proved to significantly contribute to incentivising developers, as these are <i>publicly accessible</i> and therefore have the ability to <i>ensure liveliness</i> as well as <i>footfall</i></li><li>• <b>key programming:</b> in particular <i>social</i> and <i>commercial projects</i>, e.g. schools or one-of-a-kind eateries, could be appointed as functional characteristics that incentivise future residents to settle there, what makes the neighbourhood <i>economically more decisive</i> and again lays a better foundation for further developments</li></ul>	 <b>Sociocultural characteristics</b> <ul style="list-style-type: none"><li>• <b>historical characteristics that represent the culture of the brownfield:</b> such characteristics prove to be both <i>meaning creating</i> and <i>history calling catalysts</i> and they function, albeit indirect, as major incentives for project developers to (re)develop - they refer to habits, traditions or beliefs that are/were present in the area - this generally <i>appeals to the imagination</i> of many people and has a <i>narrative nature</i> to which developments could strategically respond</li><li>• <b>providing unicity and identity:</b> projects of close presence that provide a feeling of unicity and identity, attracting both visitors and future residents, appeared to be particularly important for the <i>financial ambitions</i> of (re)developments</li></ul>		
	 <b>Location</b> <ul style="list-style-type: none"><li>• <b>location of the iconic project itself:</b> could provide for incentives when the <i>location on itself is iconic</i> already, e.g. the unique location of Hotel New York, at the tip of the Wilhelminapier overlooking the city and the Maas river</li><li>• <b>location of plots overlooking the icon:</b> could provide for incentives when it is <i>overlooking the iconic project</i>, e.g. a plot with a view on the iconic Erasmusbrug</li><li>• <b>location of plots nearby the icon:</b> the location of public attracting iconic projects provides incentives because the associated <i>flow of people</i> is beneficial for developments on plots adjacent to this inflow</li></ul>	 <b>Image</b> <ul style="list-style-type: none"><li>• <b>long-term committed development companies:</b> this type rather looks for yet an attractive image and existing qualities in the development area - a positive image could incentivise and is therefore considered a <i>prerequisite</i></li><li>• <b>short- to medium-term committed development companies:</b> this type either makes use of present project(s) that provide identity, or they provide such projects themselves - a good reputation and positive image could incentivise, but is <i>not</i> considered a <i>prerequisite</i></li><li>• <b>project vs urban level:</b> the image and marketing of the <i>brownfield as a whole</i> is more effective in inciting developers to (re)develop, rather than the image of individual iconic projects</li></ul>		
Less effective	 <b>Scale</b> <ul style="list-style-type: none"><li>• <b>not the scale, but the spillover:</b> not the tangible and physical characteristics, but the common spillover of <i>bringing life into an area</i> incentivises project developers to (re)develop</li><li>• <b>large-scaled iconic projects:</b> can as an <i>incentive</i> as it accommodates a large number of people and therefore brings life into the area - on the other hand, it can be a <i>discouragement</i> as it can block views or be a distraction</li><li>• <b>small- to medium-scaled iconic projects:</b> can contribute to incentivising developers as this makes projects <i>intimate</i> and <i>particularly exclusive</i> within the area</li></ul>	 <b>Development process</b> <ul style="list-style-type: none"><li>• <b>general incentive:</b> the development process of ongoing potential iconic projects could be assessed on the <i>parties involved</i> and the <i>expected success rate</i> by project developers, to estimate whether the project will positively contribute to the image and branding of the area: if expected successful, it could incentivise developers as it could serve as a <i>good development example</i> and a <i>marketing tool</i></li><li>• <b>specific incentive:</b> no specific (re)development processess of iconic projects on the brownfields in study can me mentioned that demonstrably incentivised project developers to (re)develop</li></ul>	 <b>Physical characteristics</b> <ul style="list-style-type: none"><li>• <b>project vs urban level:</b> attractive physical characteristics of projects could incentivise developments, but the physical appearance of <i>brownfields as a whole</i>, often attractive due to old harbour and industrial buildings, has proved to be more incentivising</li><li>• <b>physical characteristics depicting the history:</b> in particular physical characteristics with <i>cultural-historical value</i> are much appreciated, as such features visualise the intangible historical features of the brownfield (the socio-cultural characteristics) which contributes to the attractiveness of developing in the area</li></ul>	 <b>Fame of the architect</b> <ul style="list-style-type: none"><li>• <b>project vs urban level:</b> the fact that iconic projects are designed by famous architects plays a role in incentivising developments, however on <i>urban level</i> and not so much on project level:<ul style="list-style-type: none"><li><b>client view:</b> the name of the architect plays a role for the client as it <i>determines the ambitions</i> for the brownfield area and consequently its <i>image</i></li><li><b>developer view:</b> developing projects with famous architects is of great value for some developers (and tenants), but the architect of <i>projects of others</i> does not demonstrably incentivises developers</li></ul></li></ul>

Table III.

Table III.

The incentivising conditions of iconic projects on brownfield redevelopments.



However, all to a certain degree. The *functional* and *sociocultural characteristics* of iconic projects are most important incentivising conditions for surrounding (re)developments. These are followed by the *location* and *image* of the iconic projects, that to a certain degree have incentivised (re)developments too. Least incentivising conditions of iconic projects are the *development process*, *scale*, *fame of the architect* and the *physical characteristics* of the iconic project. Table III further motivates this classification.

As the *uniqueness* and *innovativeness* of the iconic projects in the case studies have derived from the other conditions, these are not explicitly appointed an incentivising condition, which nevertheless does not mean that they could not incentivise (re)developments. Uniqueness and innovativeness are inseparably linked to transiency: they disappear more easily compared to the other conditions discussed. As a result, they can not be called sustainable characteristics that assure real estate developers with a long-term success guarantee. The same applies to physical characteristics, which tend to just temporarily draw the attention (e.g. quickly taking a picture at the Sydney Opera House). The functional and sociocultural characteristics are seen as sustainable conditions. They can determine the iconic value for the long-term and subsequently provide more certainty for surrounding investments. Furthermore, historical qualities are timeless by definition and thus even less perishable. Physical reflection of history thus makes iconic projects even more sustainable. All in all, it is recommended to create unique projects, but with truly authentic experiences. This will make the projects known and used by many for the long-term, assures further potential of the brownfield and thereby makes them truly function as catalysts for the brownfield redevelopment.

## Discussion

The conclusions must however be nuanced. One should consider the fact that each brownfield has different interests as well as other concerns. As a consequence, the aforementioned conclusions can not be provided through a concrete list of preconditions necessary for iconic projects to successfully catalyse brownfield redevelopments.

Regarding the renewal of Katendrecht, a note must be made with regard to the extent to which single iconic projects have catalysed surrounding (re)developments. Prior to the iconic developments, the municipality of Rotterdam, Woonstad Rotterdam and Proper Stok/Heijmans actually laid the foundation for these developments. Even in difficult and uncertain

economic times, these parties have continued to the commitment to revitalise Katendrecht. This consequently enabled the development of iconic projects, which again catalysed further developments.

Regarding the redevelopment of the Wilhelminapier, it must be noted that many government investments preceded and only later, private investments followed. As a consequence, it is clear that certain conditions of iconic projects indeed catalysed surrounding developments, however it is unsure if these projects would have been developed and thus functioned as catalyst too without the preceded public investments. These public investments, however, have been a very strategic move as they have started mutual reinforcement. In other words, the one project development functioned as a catalyst again for the next one. Actually all projects thus have had a catalysing effect on the surrounding developments in their own way.

## Added value

All in all, this master thesis adds value to the Urban Development Management field of study and to both the clients and developers of brownfield redevelopments. It adds value to the Urban Development Management field of study as it supports effective solutions that can both produce and promote sustainable urban environments, by providing insights into the conditions of iconic projects that can drive brownfield redevelopments. It thus aspires to beneficially make use of the catalysing nature of iconic projects, in particular pertaining to stimulating other (re)developments in its surrounding area. In addition, this research intended to reduce the likelihood that clients would adopt the unrealistic idea that high-profile and prestigious projects automatically spur other project developments in the environment. This consequence of catalysing developments cannot be taken for granted. Accordingly, the development of iconic projects could (partially) be a waste of time and money if they have been intended to spur further developments in their surroundings, but were found not to have spurred. The conclusions of the research therefore add value to clients, mainly municipalities, of brownfield redevelopments as they offer valuable insights into the conditions of iconic projects that can substantially increase the chances of inciting project developers to develop. These insights moreover serve as an inspiration source for contractors, mainly private real estate developers, of brownfield redevelopment projects. Besides clients, it thus adds value to contractors too. Justification for iconic projects is often lacks or is considered weak and/or not specific. If external goals for iconic projects have been set, its achievements are often not assessed in advance or in retrospect



(Oligschläger, 2015). Fundamentally, this master thesis offers clients of brownfield redevelopments, usually municipalities, valuable insights that increase the success factor of deploying iconic projects with the intention of stimulating further project developments, thereby reducing uncertainties regarding the realisation of this intention.

### **Implications for practice**

Insights in the conditions that contribute to incentivising real estate developers to develop, offer clients, mostly municipalities, better perspective on effective redevelopment strategies. They are meant to function as inspiration source and a guideline. Overall, this research provides insights into the benefits of using certain conditions of iconic projects in order to stimulate further physical transformations in the brownfield area. These insights should be used prior to the development of iconic projects. Subsequently, they can contribute to more valid arguments during debates on whether or not to strategic deploy iconic projects in order to stimulate a brownfield redevelopment. As such, it offers valuable insights that increase the success factor of deploying iconic projects with the intention of stimulating further project developments. This in turn contributes to speeding up the process of meeting today's residential demands.

Moreover, this research concludes that all of the conditions of iconic projects identified can have a stimulating effect on real estate developers, however, illustrates a clear distinction between the most to least effective conditions. As a result, it contributes to the chance of success of catalysing (re)developments in the brownfield and thus to the discussion on whether or not and how iconic projects can be used strategically to achieve this. These insights can again be used to support brownfield redevelopment strategies, investment decisions and discussions on the deployment of iconic projects as a catalyst.

All in all, this research aims to create awareness by municipalities and to spark their curiosity to not only realise iconic projects to put an area or the city on the map. It aspires to strategically make use of the possibilities that iconic projects offer, pertaining to incitements to other (re)developments in the wider environment. Through identification of the conditions of iconic projects that incentivise developers, the first preliminary steps in the direction of meeting the short to medium-long term residential demand in urbanised areas can be set in stone.

### **Recommendation for further research**

It could be an added value to conduct a similar type of research, however, not into the influen-

ce of iconic projects on project developers, but into the influence of temporarily place-making projects on project developers. The development of iconic projects is often quite cost intensive and time consuming. Temporarily place-making projects could provide catalysing effects too, however, requires less investments and time. Therefore, they could be deployed as a more accessible replacement of iconic projects. They are usually deployed as one of the first steps in urban area developments and often turn out to be highly successful. However, if it is temporary, it has to go away at some point, often for the initial developed purposes of the urban area development. The question then raises whether this success has a temporary nature on the area as well, or whether this is a long-term success. In case of the latter, one created a kind of permanent temporality, that was not even the intention. That could be considered a luxury problem, as the surrounding parts have benefited and so it met its intention. However, the area than is a victim of its own success of temporary place-making.

In addition, it is recommended to conduct more extensive research into the requirements needed for the development of iconic projects that incentivise further developments on brownfields. For instance, into active land policy at brownfield redevelopments by municipalities, by acquiring land or through the *Wet Voorkeursrecht Gemeenten*, however, with a risk-aware approach. Such requirements help to program and realise a program that steers on conditions that incentivise (re)developments, which allows for application of the research findings. And, as there is now more knowledge on incentives for brownfield redevelopments by means of certain iconic project conditions, research into lowering the barriers of brownfield redevelopments would make this research even more valuable in practice.



# Reading guide

To understand the conditions of iconic buildings that could incite project developers to (re)develop projects in brownfield areas, research has been conducted within a series of five sections which will be explained below.

## I. Introduction

Defining the problem statement, proposing the research by means of its goal, questions and the conceptual model and motivating why this research is relevant.



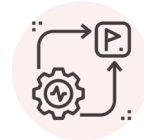
## II. Theoretical Research

Discussing the catalysing effects of iconic projects and the motives of private real estate developers by using theories from literature.



## III. Methods

Motivating the use of (the specific) case studies, semi-structured interviews and an evaluation panel and illustrating requirements that assess iconic values.



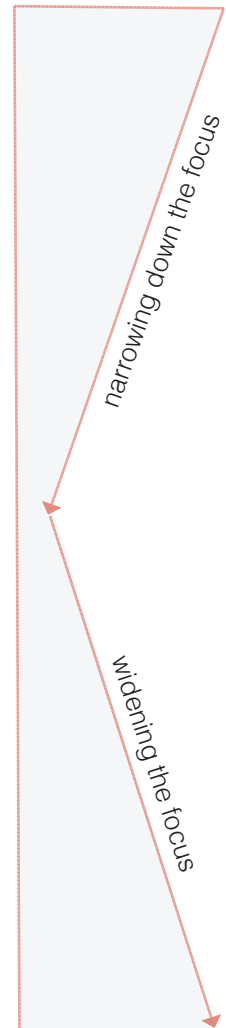
## IV. Empirical Research

Analysis on the conditions of iconic projects that contributed to inciting (re)developments by studying the redevelopments of the Wilhelminapier, Katendrecht and Merwe-Vierhavens.



## V. Synthesis

Concluding the research by analysing and evaluating the theoretical and empirical research results and exploring implications for practice in order to stimulate brownfield redevelopments by the use of iconic projects.





# Glossary

A list of key definitions and the used abbreviations is provided below, as some can be useful for the understanding of the rest of this thesis.

## **Brownfield area**

*Any land or premises which has been previously used or developed and is not currently fully in use, although it may be partially occupied or utilised. It may also be vacant, derelict or contaminated.*

Reprinted. (Alker, Joy, Roberts & Smith, 2010, p. 49)

## **Cathedrals in the desert**

*When iconic projects attract lots of attention, however are placed in an environment where the local residents have little benefit.*

Adapted. (Ashworth, 2009)

## **Guggenheim effect**

*Resurrecting of a city's urban and economic fabric by the powerful impact of a flagship urban artefact.*

Adapted. (Plaza, Tironi & Haarich, 2009)

## **High-profile**

*Attracting a lot of attention and interest from the public and newspapers, television, etc.*

Reprinted.<sup>1</sup>

## **Icons**

*Icons are famous not simply for being famous, as is the case of various forms of celebrity, but famous for processing specific symbolic/aesthetic qualities, qualities that are the subject of considerable debate within the recent rise of blogosphere, debate to which the general public actively contributes.*

Reprinted. (Sklair, 2010, p. 136)

## **Iconic project**

*Projects that are considered high-profile and prestigious both by experts from the field as by the general public, that provide a sense of uniqueness and identity to the environment and function as a catalyst in the surrounding environment.*

Own definition.

## **Prestigious**

*Very much respected and admired, usually because of being important*

Reprinted.<sup>2</sup>

## **Safe haven**

*A good investment choice to limit losses in times of market turbulence.*

Reprinted. (Gürgün & Ünalıms, 2014, p. 342)

## **Spillover (effect)**

*The process by which an activity in one area has a subsequent broader impact on places, society or the economy through the overflow of concepts, ideas, skills, knowledge and different types of capital.*

Reprinted. (TFCC, 2015, p. 15)

## **G4**

*Amsterdam, Rotterdam, The Hague and Utrecht*

## **H.A.L.**

*Holland-Amerika Lijn*

## **M4H**

*Merwe-Vierhavens*

## **MBE**

*Management in the Built Environment*

## **MoR**

*Municipality of Rotterdam*

## **SDD**

*Stichting Droom en Daad*

## **UDM**

*Urban Development Management*

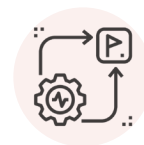
<sup>1</sup> High-profile. (2019). In Cambridge.com. Retrieved on March 27, 2019 by: <https://dictionary.cambridge.org/dictionary/english/high-profile>

<sup>2</sup> Prestigious. (2019). In CambridgeDictionary.com. Retrieved on March 27, 2019 by: <https://dictionary.cambridge.org/dictionary/english/prestigious>



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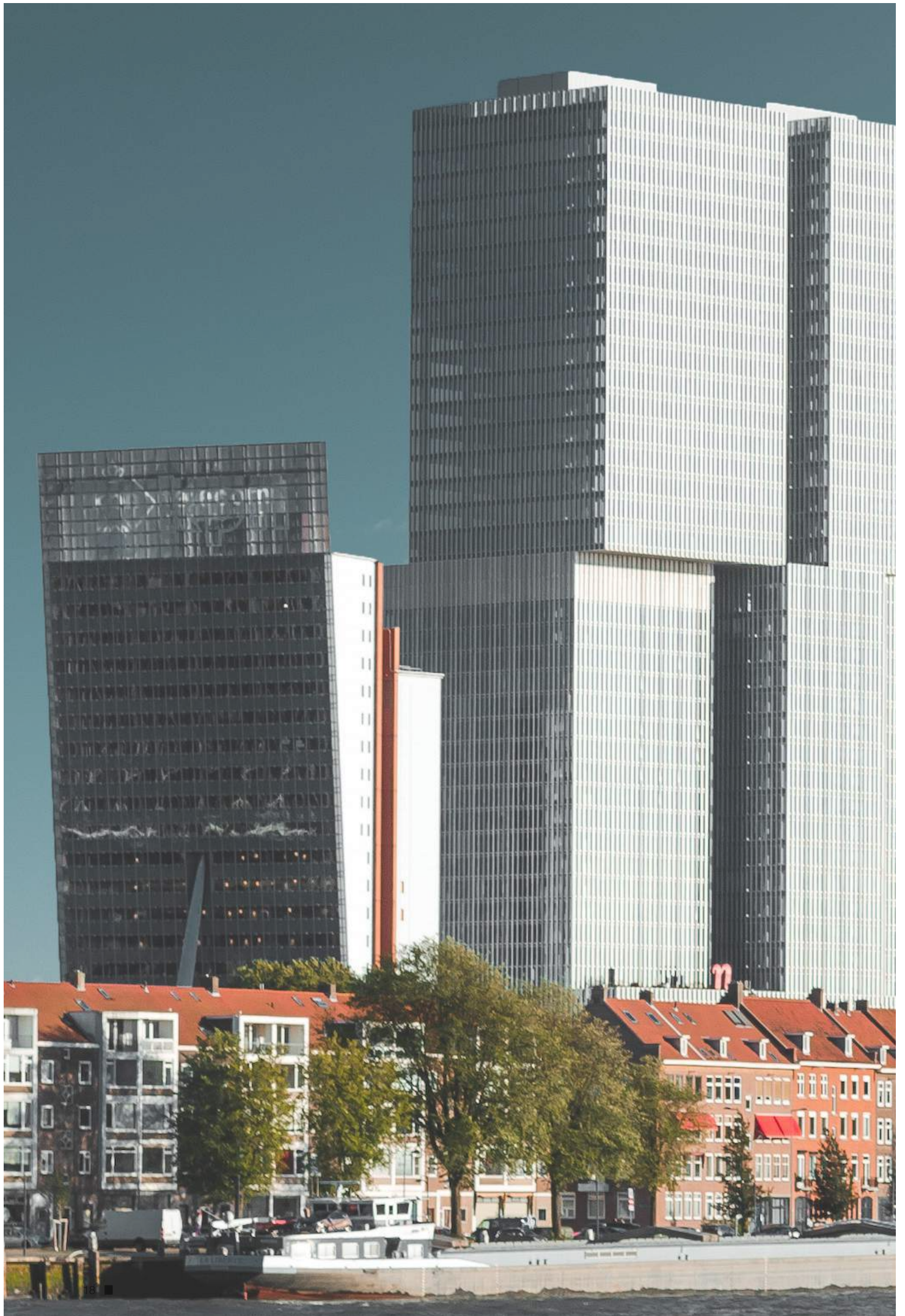
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## SECTION I introduction

*Defining the problem statement, proposing the research by means of its goal, questions and the conceptual model and motivating why this research is relevant.*

### **1. Introduction**

#### **1.1 Theme**

#### **1.2 Problem Analysis**

#### **1.3 Research Proposal**

##### 1.3.1 Research Goal

##### 1.3.2 Research Questions

##### 1.3.3 Expectations

##### 1.3.4 Type of Research

#### **1.4 Research Scope**

#### **1.5 Deliverables and Dissemination**

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##### 1.6.1 Societal relevance

##### 1.6.2 Scientific relevance



# 01

## Introduction

The first chapter describes the research of this master thesis by first introducing the research theme. The problem analysis is then discussed after which the derived problem statement is addressed. This brings together the topics of iconic projects and their catalysing effects and the potential of brownfield redevelopment. The research proposal is presented in the third paragraph by pointing out the main goal of the research, its objectives, the associated research questions and type of research. Subsequently, the scope, deliverables and dissemination of the research are clarified. The final paragraph motivates why doing this research is both socially and scientifically relevant.

### 1.1 Theme

Gain from analysis of more than 35 million pictures on the public photo website Flickr.com, the most photographed object in the world appears to be the Eiffel Tower (Crandell, Backstrom, Huttenlocher, & Kleinberg, 2009). The tower is accompanied by the Big Ben, the Notre Dame, the London Eye and the Empire State Building in the top ten most photographed objects in the world (Bates, 2009). Real icons, you can say the least, which evidently can lead to tourist attraction. But iconic projects can also lead to the improvement of a neighbourhood, or even to image improvement of a city (Doucet & Van Weesep, 2011). Such so called spillover effects could be highly valuable and as a result strategically deployed when tackling societal issues.

A societal issue with a strong position in current debates is about the demand for the transformation of un(der)utilised places in the existing built environment that is getting stronger and stronger (Brink, 2017). Also, it is widely acknowledged that 1.000.000 new homes should be built in the Netherlands before 2030, of which of which 10 to maximum 30 percent can be realised in the existing city (ABF Research, 2016). In order to substantially contribute to this demand, transforming vacant properties only is not sufficient. Larger transformation areas must be tackled. Otherwise, the chance of generating overheated real estate markets in the cities is high and that will cause an unaffordable and inaccessible city for many. In order to get control over the transformation potential within existing urban areas, research concluded that the Netherlands has got 23.476 hectares of un(der)utilised areas (Brink, 2017). In a high growth scenario, this means that approximately 35 percent of the housing needs until 2050 can be realised in vacant buildings and un(der)-utilised areas within the existing city. In a small growth scenario, this rate is almost 80 percent (Brink, 2017). Either way: there is a significant amount of potential within existing cities to transform. The spillover effects of iconic projects that can play a demonstrable role in the transformation of these un(der)-utilised urban areas, are explored in this master thesis.

The chosen theme for this graduation research is 'Sustainable Area Transformations (in the Netherlands)', provided by the Urban Development Management (UDM) chair of the Management in the Built Environment (MBE) department. This chair investigates design concepts, principles and instruments that support effective strategies that can both produce and promote sustainable and resilient urban environments. These strategies aim to shape the behaviour of stakeholders by their decisions and actions and intent to create networks and collaborations to implement change in certain urban areas (Urban Development Management, n.d.). Two of the main topics with regard to the resilience of urban environments in the Netherlands that currently dominate the UDM debate are: 1) the importance of regenerating existing urban areas and 2) the growing housing shortage. These two debates are inextricably linked, as the renewal of existing urban areas simultaneously addresses the housing demand, which is particularly strong in already urbanised areas (Delft University of Technology, 2018). The chosen graduation theme fits research into the regeneration of these already existing urban areas, as it supports more applied research on instruments for sustainable and resilient area transformations. And since it is still unclear how the growing housing shortage will substantially be administered (Delft University of Technology, 2018), that is what this master thesis anticipates on.



## 1.2 Problem Analysis

Nowadays, more than half of the world's population (55 percent) is living in cities. The movement of society towards the urban environment, also called urbanisation, is a worldwide trend that continues to occur as the percentage will rise up to even 68 percent in 2050 (United Nations, 2018). When zooming in to the Netherlands, the urbanisation trend is clearly evident as well, especially in the country's four largest cities: Amsterdam, Rotterdam, Utrecht and The Hague (also called 'G4': a Dutch abbreviation of 'The Big 4'). The Central Bureau for Statistics and the Environmental Assessment Agency (2016) namely expect a population increase in the G4 of, on average, 15 percent in 2030. In other words, one-third of the total Dutch population should be accommodated in these four major cities by 2030. The urbanisation trend generates the need for cities to further develop their urban areas. To substantially and properly deal with these growing demands, large transformation areas must be addressed (Brink, 2017). Supported by the fact that the focus of the government has shifted to densification of the existing urban fabric by means of urban redevelopments (VINEX 1991), it can be concluded that redevelopments of un(der)-utilised urban areas in the short and medium-long term deserve extra attention and should earn priority in area developments.

Research from the Dutch Environmental Assessment Agency (Planbureau voor de Leefomgeving - PBL) however shows that the market solely takes up a quarter of the current Dutch housing demand within the city centres (Verheul & Daamen, 2017). The uptake of market parties with regard to housing in already urbanised areas thus currently is too slow to reach the needs of 2030. This is caused by the presence of many, interconnected barriers. These do not only have a financial ground, yet are also juridical, administrative and organisational grounded (Verheul & Daamen, 2017). This clearly ensures a complex task in lowering these barriers to extensively make a difference. Eliminating all these barriers can even be considered an impossible task. Therefore, it is important to not only look at the market's obstructions, but at market possibilities and incentives that may even surpass these barriers. In the end, the market needs to remedy the shortcomings in order to come closer to meeting the strong urbanisation needs.

Many investigations support the urbanisation trend and the subsequent needs. Also, many prognosis show that realising the future demands with the current mode of development is not feasible (Verheul & Daamen, 2017; ABF Research, 2016). Though, not much research has gone into concrete approaches to deal with this successfully. The problem thus lies in the fact that it is not yet clear how these transformations can successfully be administered in time, or possibly can be incentivised to take place in time. In the Netherlands, transformation is nothing new: the country is used to create valuable spaces of obsolete and under-utilised areas within the existing built environment for decades already. Parties know how to deal with it, but such transformations are cost intensive and time consuming (Brink, 2017). Therefore, incentives are needed to substantially administer the growing housing demands by means of transforming un(der)-utilised urban areas within existing cities. The following statement captures the problem this research tries to tackle:

*Within the short and medium-long term, the large residential needs within the existing cities of the Netherlands as a result of the urbanisation trend will not be met, due to slow uptake of market parties. Taking into account the potential of un(der)utilised urban areas and the possibilities as well as uncertainties regarding strategic deployment of iconic projects in order to stimulate (re)developments, there is not enough knowledge available on operational level to catalyse the redevelopment of these areas by means of iconic projects.*

## 1.3 Research proposal

The research that will be conducted to address the problem statement will be shortly proposed within this paragraph by mentioning the research goal and associated objectives, the research questions, the conceptual model and the type of research applied. The latter will be discussed more comprehensive in chapter three.

### 1.3.1 Research Goal and Objectives

In order to speed up inner-city redevelopments as a response to the urbanisation trend, the main goal of this research is:



*To gain a better understanding about the conditions of iconic projects that could incite project developers to (re)develop projects in brownfield areas*

More specifically, the objectives of the research are:

- 1) To gain understanding about the phenomenon of iconic projects inciting project developers to (re)develop.
- 2) To identify the role of iconic projects in the history of particular brownfield areas
- 3) To determine how developers' motives are influenced by the conditions of iconic projects and their spillovers
- 4) To define how the conditions of iconic projects that incentivise (re)developments could be implemented in contemporary and future brownfield redevelopments

The valuable results will be transmitted to practice and the world of scientific research by means of an overview of the most to least effective incentivising conditions of iconic projects and implementations for municipalities and developing parties active in brownfield locations.

### 1.3.2 Research Questions

The main research question is based on the aforementioned research goals and the three main concepts of this research: (1) today's focus on brownfield redevelopments regarding urban area development as a result of the strong demand for housing in residential areas close to existing urban regions; (2) the conditions of iconic projects that can catalysing urban area developments and (3) the influence of these conditions on the motives of real estate developers. By combining these concepts, this research looks how to trigger (re)developments in brownfield areas by making use of the catalysing effects of iconic projects. In line with this, the main research question reads:

*What conditions of iconic projects could incentivise project developers to (re)develop in Dutch brownfield areas?*

Conditions of iconic projects can range from building characteristics to the physical context and perhaps even the development process that can play a role in the decision of real estate developers to likewise redevelop in a brownfield area. The goal is now to find out which conditions are actually relevant. Answer to the research question will be given with the results obtained through both theoretical and empirical research. A literature review will be undertaken to gain a better understanding about the main research concepts. Empirical research will be conducted to assess the concepts in practice. However, to effectively question the main research question, a set of subquestions, corresponding with the aforementioned objectives, must be answered first:

- 1) *What does literature say about the catalysing effects of iconic projects and the motives of private real estate developers?*
  - Purpose: To provide a critical overview of state of the art literature on the main research concepts, as a foundation to build on the empirical research (1st objective)
  - Method: Literature review
  - Outcome: Theoretical framework
- 2) *What role have iconic projects played in brownfield area redevelopment of the retrospective case studies?*
  - Purpose: To identify the role and influence of iconic projects in brownfield areas (2nd objective)
  - Method: Retrospective case studies
  - Outcome: Role and influence of iconic projects
- 3) *What conditions of iconic projects in the retrospective case study areas have positively influenced the intention of real estate developers to develop in the related brownfield area?*
  - Purpose: To identify the conditions of iconic projects that have an incentivising influence on (re)development decisions in the surrounding area (3rd objective)
  - Method: Retrospective case studies
  - Outcome: Overview of incentivising conditions of iconic projects in the retrospective case study areas



4)

*How could the conditions of iconic projects that incentivised (re)developments in the brownfield areas of the retrospective case studies be implemented in the brownfield re-development strategy of the prospective case?*

- Purpose: To implement the incentivising conditions of iconic projects in current and future brownfield redevelopment strategies (4th objective)
- Method: Prospective case study
- Outcome: Overview of present and potential implementations

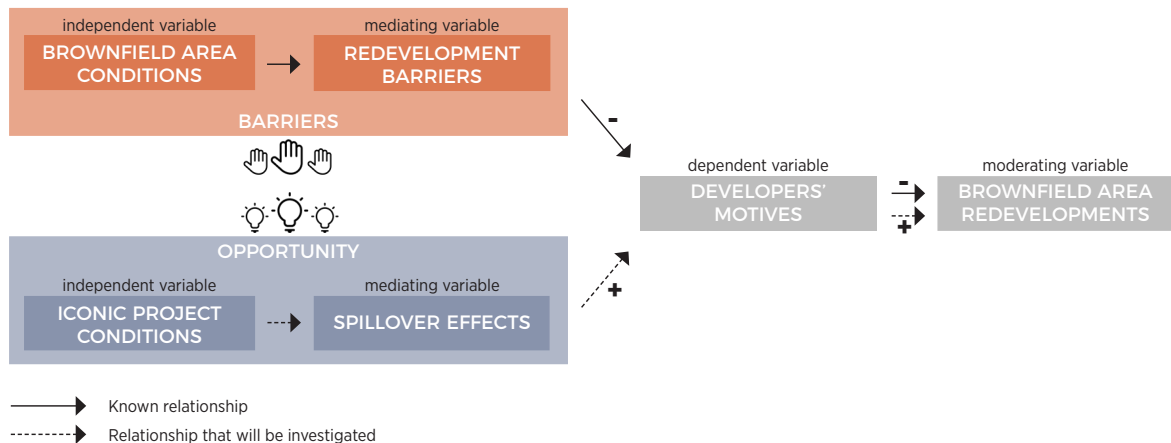
### 1.3.3 Expectations

Iconic projects move the market, but this strongly depends on multiple factors: the building characteristics and their possible spillover effects, the physical context and the development process. When particular spillover effects are assembled in a certain way, iconic buildings in brownfield areas will have the ability to catalyse developments in the surrounding area, as they can incite real estate developers.

### 1.3.4 Conceptual Model

The conceptual model (Fig. 1) represents the research goal and research questions by illustrating the relationships between the main research concepts. It functions as a framework for the entire research. The developers' motives are illustrated as the dependent variable of this research and the conditions of both brownfield areas and iconic projects are the independent variables. The barriers of brownfield redevelopments and the spillover effects of iconic projects are mediating variables in this research, as they cause mediation between certain conditions and developers' motives to (re)develop in brownfields.

Figure 1.  
The conceptual model.



The barriers in the conceptual model refer to anything that prevent brownfield redevelopments from happening or that makes it more difficult. These have extensively been investigated, e.g. by Loures (2015), and will be taken into account when conducting the research. The opportunities in brownfield redevelopments however, are not clearly considered in the literature. As it is known that iconic projects are frequently initiated to create a catalysing effect with regard to the raise of capital (Doucet & Van Weesep, 2011), iconic projects will be investigated as one of the opportunities for the redevelopment of brownfield areas.

### 1.3.4 Type of research

A qualitative research strategy will be applied. This research primarily focuses on incentives on (re) development decisions in brownfields, caused by iconic projects. A qualitative research strategy therefore suits this research best.

A literature review will be conducted first, not only to determine what is known about the key concepts of this research, but also to develop insightful and sharp subquestions for the empirical research. Second, in-depth holistic case studies of brownfields and projects in the Netherlands that have been attributed to being iconic will be conducted. The conditions of iconic projects that incentivise (re)developments will be derived from retrospective case studies of brownfield redevelopments. The resulting conclusions will additionally be applied to investigate a prospective case study of a brownfield development. The case studies will involve direct observation and document studies on the brownfield redevelopment and semi-structured interviews with developers involved. The lessons learned from the cross-case analysis and the panel that evaluated preliminary results,



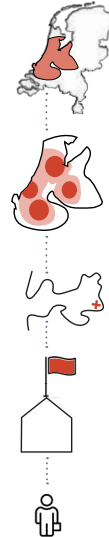
subsequently allow for answering the research questions. A more detailed explanation of the methods and techniques used for this research can be found in chapter three.

---

## 1.4 Research scope

In 'Reiswijzer Gebiedsontwikkeling', a practical guide regarding area developments created by several governments and NEPROM, three types of urban area developments are distinguished, depending on location (Ministerie van BZK, Ministerie van IenW, VNG & IPO, 2011). This research goes into the first type described: inner-city redevelopments, more specifically into brownfield redevelopments (further elaboration in §2.2). This supports the motive of this research, which is to speed up regeneration of un(der)utilised areas in existing cities. Furthermore, this research will focus on brownfields in the Netherlands, as there are lots of potential cases of both successfully completed brownfields, brownfield redevelopments that are still going on and brownfields that are on the verge of being redeveloped. In addition, comparing cases that are located within the same country will in this research be more valid because of the fact that the political, economic and social context, that can have an effect on amongst others the real estate developers' motives, will most likely not contain major differences. More specifically, the case studies will be located in one of the G4, Rotterdam, since the urbanisation trend is particularly evident in the country's four largest cities (CBS & PBL, 2016).

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## 1.5 Deliverables and dissemination

As an answer to the main research question, the main deliverable of this research will be a selection of the conditions of iconic projects in brownfields that play a role in the decision of private real estate developers to develop in the surrounding area. Also, an advice will be drawn for future and contemporary brownfield redevelopments. This advice will be most useful for the prospective case study. Given the current lack of knowledge on the origin of the catalysing effects of iconic projects, it serves as an inspiration source for clients and developers of any brownfield redevelopment project in the Netherlands as well.

*"Research is of no use unless it gets to the people who need to use it."* (Whitty, n.d.) The advice is mainly in the public parties' interest, in particular for municipalities, as many brownfield transformations in the Netherlands are now on the verge of beginning. For private parties, in particular for real estate developers and investors, it is valuable to read the case study findings, as that provides a 'behind the scenes' of the decision making process of other private parties/competitors. For confidential reasons however, the stakeholders' interviews and supporting documents will be processed carefully according to the guidelines provided by the Human Research Ethics Committee of the TU Delft (§3.5 and Appendix IV). For best results, it is important to provide a clear picture of what this research is based on, what it entails and what it will signify during the research too. Therefore, preliminary results have been shared during the research too, mainly with individuals that potentially participated in one of the case studies.

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## 1.6 Relevance

In order to clearly motivate the relevance of this research, a distinction is made between the scientific and societal relevance.

### 1.6.1 Societal relevance

Research from, among others, the Dutch Environmental Assessment Agency (Planbureau voor de Leefomgeving - PBL) shows that the market solely takes up a quarter of the Dutch housing program within the city centres (Verheul & Daamen, 2017). This slow uptake of market parties results in several disadvantageous consequences. It causes a decline in affordability of housing and consequently in the disposable income of people living in the city. Furthermore, it increases the commuter traffic at great distances and keeps urban areas deteriorated for a longer period of time.



Finally, it increases segregation in the city as it reduces the amount of particular target groups in the city (e.g. starters) (Verheul & Daamen, 2017). Mainly the latter is a highly topical issue which is disadvantageous for urban areas as a mix of target groups better spreads people's activities in public spaces throughout the day, which again improves liveability and social safety. These consequences thus impact urban environments in a negative way and need to be counteracted.

Furthermore, the housing stock should be expanded with around 600.000 dwellings between 2015 and 2025 which, due to the demolition of dwellings, implies an expansion of around 70.000 dwellings per year (ABF Research, 2016). As during the last years merely 48.000 dwellings on average were realised per year (Statline, 2018), this proves the importance of searching for incentives that will speed up the process.

Many brownfield transformations in the Netherlands are on the verge of beginning (e.g. M4H or the Merwe-Vierhavens in Rotterdam from 2015 onwards<sup>1</sup>; several islands of the Houthavens in Amsterdam from now on<sup>2</sup>; the peninsula Cruquius at the Eastern port area of Amsterdam from now on<sup>3</sup>; the Havenstratterrein in Amsterdam from 2019 onwards<sup>4</sup>; the Hamerkwartier in Amsterdam from 2020 onwards<sup>5</sup> and the Coenhaven and Vlothaven in Amsterdam from 2040 onwards<sup>6</sup>) and the Dutch spatial planning policies nowadays prefer densification of land use in existing urban areas over greenfield developments. Transforming un(der)utilised brownfield sites to residential areas is then an obvious solution (Vermeer & Vermeulen, 2011).

Figure 2.

The societal relevance of the research.

**Voor derde jaar op rij 100 duizend**<sup>7</sup>

**inwoners erbij**

<sup>8</sup> *Woningtekort weer niet ingelopen; integendeel*

**Bijna overal in Nederland meer huishoudens**<sup>9</sup> <sup>10</sup> **Woningtekort neemt nog jaren toe: jongeren en ouderen de dupe**

**Een beroep op het nieuwe kabinet om verstedelijking vaart en schwing te geven**<sup>11</sup>

<sup>12</sup> **Dreigend woningtekort ondanks tal van nieuwbouwprojecten**

**Grote stad zoekt dringend woonruimte**<sup>13</sup>

<sup>14</sup> **25 jaar Hotel New York: Op de Kop van Zuid werd Rotterdam een plek waar je geweest moest zijn**

<sup>15</sup> **Sterke bevolkingsgroei in de grote en middelgrote gemeenten**

Hotel New York bestaat morgen 25 jaar. Hoe de komst van een hotel schakel werd in de transformatie van Rotterdam naar een hippe stad die in geen reigids meer ontbreekt.

<sup>16</sup> <sup>17</sup>

**WONINGTEKORT BEREIKT HOOGTEPUNT IN 2018**

**Wonen, werken en vermaak op het bedrijventerrein van de toekomst**<sup>18</sup>

<sup>8</sup> **blijkt opnieuw niet gelukt om iets van het woningtekort in te lopen.**

*Sterker: het woningtekort loopt verder op. Ondanks alle goede voornemens slagen we er niet in om de aantallen woningen te realiseren die nodig zijn. Daarnaast is er de waarschuwing van prof. P. Boelhouwer:*

<sup>1</sup> <https://www.gebiedsontwikkeling.nu/artikelen/merwe-vierhavens-van-havenindustrie-naar-maakstad/>

<sup>2</sup> <https://www.amsterdam.nl/projecten/houthaven/>

<sup>3</sup> <https://www.amsterdam.nl/projecten/cruquiusgebied/>

<sup>4</sup> <https://www.amsterdam.nl/projecten/havenstratterrein/>

<sup>5</sup> <https://www.amsterdam.nl/projecten/hamerkwartier/>

<sup>6</sup> <https://www.portofamsterdam.com/nl/nieuwsbericht/plan-haven-stad-op-gespannen-voet-met-belangen-van-haven>

<sup>7</sup> <https://www.cbs.nl/nl-nl/nieuws/2019/01/voor-derde-jaar-op-rij-100-duizend-inwoners-erbij>

<sup>8</sup> <https://www.gebiedsontwikkeling.nu/artikelen/woningtekort-weer-niet-ingelopen-integendeel/>

<sup>9</sup> <https://www.pbl.nl/en/node/63265>

<sup>10</sup> <https://www.rtlnieuws.nl/geld-en-werk/artikel/3816631/woningtekort-neemt-nog-jaren-toe-jongeren-en-ouderen-de-dupe>

<sup>11</sup> <https://www.volkskrant.nl/columns-opinie/een-beroep-op-het-nieuwe-kabinet-om-verstedelijking-vaart-en-schwung-te-geven~b48f4d04/>

<sup>12</sup> <https://propertynl.com/Nieuws/108bfe9c-a77b-44b5-b00c-64b371fe3012/Dreigend-woningtekort-ondanks-tal-van-nieuwbouwprojecten>

<sup>13</sup> <https://www.volkskrant.nl/economie/grote-stad-zoekt-dringend-woonruimte~b1d8f50c/>

<sup>14</sup> <https://www.trouw.nl/cultuur/25-jaar-hotel-new-york-op-de-kop-van-zuid-werd-rotterdam-een-plek-waar-je-geweest-moest-zijn~ad03b646/>

<sup>15</sup> <https://www.cbs.nl/nl-nl/nieuws/2016/37/pbl-cbs-prognose-groei-steden-zet-door>

<sup>16</sup> <https://www.trouw.nl/cultuur/25-jaar-hotel-new-york-op-de-kop-van-zuid-werd-rotterdam-een-plek-waar-je-geweest-moest-zijn~ad03b646/>

<sup>17</sup> <https://www.capitalvalue.nl/nl/nieuws/woningtekort-bereikt-hoogtepunt-in-2018-1>

<sup>18</sup> <https://www.metropoolregioamsterdam.nl/artikel/20170627-wonen-werken-en-vermaak-op-het-bedrijventerrein-van->



A solution to stimulating and speeding up the process of the redevelopment of these brownfield sites could be offered by iconic projects. These are often deliberately proposed by municipalities for their catalytic function, as they can generate economic and socio-cultural spillovers in a larger or even different area than where the project is located (Doucet 2010; Verheul, 2013). The development of iconic projects may consequently result in the creation of new economic activity, new housing developments and a new flow of tourism. All this provides a more attractive view to an area, an increase in the housing demand and, as a result, ensures an increase in investments for (re)developments (Verheul, 2013). This research investigates the conditions of iconic projects that stimulate other real estate developers and thereby catalyse surrounding (re)developments in the brownfield.

### 1.6.2 Scientific relevance

The development of iconic projects has become a popular tool for municipalities to boost the image of transformation areas and/or to generate catalytic effects in its regeneration (Doucet, 2011). Many studies have yet focused on the (catalysing) impact of iconic projects, however do not by definition have taken into account the conditions that are needed in order to substantially catalyse surrounding area transformations. Doucet & Van Weesep (2011) for instance investigated the differences in the intended goals and outcomes of iconic projects between public and private parties, but did not focus on the causative building conditions and the impact on developer's motives. The same holds for Claassen, Daamen and Zaadnoordijk (2012) who explored iconic building types that could create the right conditions for new investments and Evans (2003) who wrote about the importance of the approach in hard branding cities through cultural flagships: to do it with 'verve and gusto'. Verheul (2012) focussed on the association of iconic projects with the desired city identity by city councils. He wrote about the difficulty of achieving predefined ambitions of iconic projects with regard to shaping a city's identity and presented some suggestions to review initiatives to increase this chance.

These are some of the important studies that this thesis takes as a starting point. Knowledge about the specific conditions of iconic projects that may affect private real estate developers motives' however is missing. As this could play a significant role in meeting the housing demand and coping with the urbanisation trend, that is what this thesis will give answer to. In contrast to the aforementioned studies that have not specified a particular area scope, this thesis will specifically focus on the transformations of brownfield areas by means of iconic projects. These redevelopments are preferred in Dutch policies (Ministerie van Infrastructuur en Milieu, 2017) and furthermore have a significant transformation potential (Brink, 2017). As this thesis will contribute to the aforementioned shortcomings within the current state of the art, it is considered scientifically relevant too.

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## SECTION II

### theoretical research

*Discussing the catalysing effects of iconic projects and the motives of private real estate developers by using theories from literature.*

## **2. Literature review**

### **2.1 Literature delineation**

### **2.2 Urban area development**

#### 2.2.1 The Ducht context

#### 2.2.2 Urban area development types

#### 2.2.3 Brownfield redevelopments

### **2.3 Iconic projects as catalysts**

#### 2.3.1 The iconic value

#### 2.3.2 The catalysing effects

### **2.4 Motives of private r.e. developers**

#### 2.4.1 The real estate developers

#### 2.4.2 The motives

### **2.5 Theoretical framework**



# 02

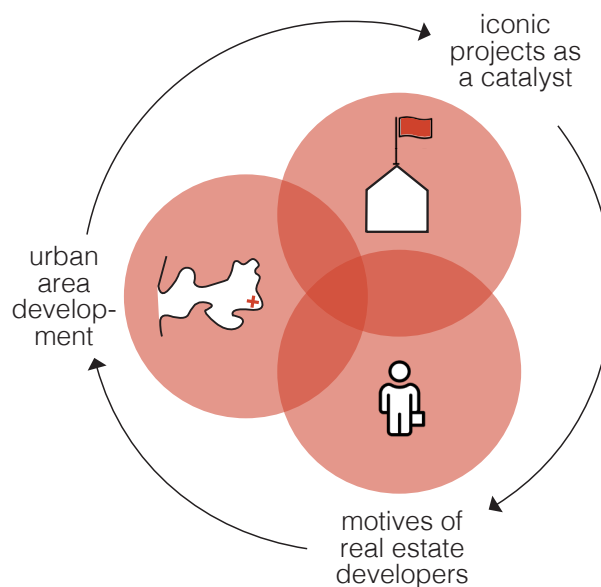
## Literature review

Chapter two presents the literature review that supports this research. The goal of this literature review is to provide an extensive overview of the research concepts associated with this thesis. The findings allow for a theoretical framework to be made that clarifies these concepts and supports the knowledge gap that this research responds to. They moreover provide for the possibility to give answer to the first research subquestion. This finally enables an operationalisation of the the conceptual model of this research, presented in the final paragraph.

### 2.1 Literature delineation

In order to carry out scientific research, it is essential to define concepts. Providing clear definitions of the main research concepts can avoid confusion as they clarify relations and perhaps similarities or differences between each other. Because when can a project actually be appointed iconic? And can one assume that these projects always have positive catalysing effects on the surrounding area, or can there also be negative or no effects? To clarify such issues, this chapter is dedicated to a discussion on the main research concepts by using fundamental theories from literature.

Figure 3.  
The three main research concepts discussed in the literature review.



The three concepts representing this research are illustrated in Figure 3. Each paragraph discusses one of these concepts. To demarcate the research, the literature review starts with a study on urban area development in general followed by a study on brownfields specific in §2.2. This paragraph concludes with an extra specification of the research scope and provides a clear background of the field of urban area development. In §2.3, the spillover effects of iconic projects will be discussed by first providing clear definitions. Subsequently has been investigated how these iconic projects can function as a catalyst for urban area developments. Thirdly, the role and in particular the motives of property developers are discussed in §2.4. The final paragraph summarizes the main findings by giving answer to the first research question by means of a theoretical framework:

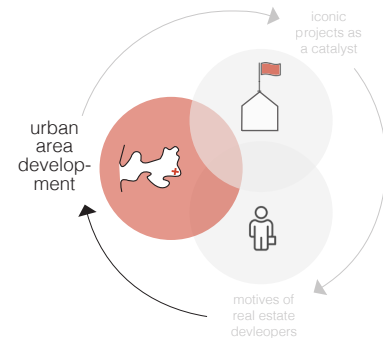
1)

*What does literature say about the catalysing effects of iconic projects and the motives of private real estate developers?*



## 2.2 Urban area development

Lately, area development is almost entirely devoted by area *redevelopment*. Van Belzen even calls the 21<sup>st</sup> century, the *century of redevelopment* (2013, p. 3). Much that has been built in the past namely lost its function, which caused vacancy. This requires new, innovative concepts and working methods to redevelop. The latter, however, requires courage from both clients, governments, financiers and users (Van Belzen, 2013). This paragraph will first go into what is known about urban area developments in general and subsequently goes more in-depth into the redevelopment component and what that entails.



### 2.2.1 The Dutch context

In recent decades, Anglo-Saxon thinking within the field of urban area development has become more dominant. The private sector influences in urban development has been increasing since the 1980s, which can be explained by some major contextual changes. The Dutch society struggled with structural unemployment, government deficits, and low business revenues during the recession in the 1980s. This called for rapid economic reforms, based on two principles: 1) the divestment of government deficits and 2) a switch towards more market mechanisms in order to change directions towards civic and private initiatives. For the latter, public, private and civic responsibilities needed to be rearranged. Under guidance of cabinet Rutte, between 2010 and 2012, governance was further changing directions towards the decentralisation of government powers, which in turn has increased the role of the market and civic society (Heurkens, 2012). As shown in Table 1, the power position within urban developments has been shifting since 1980 for a period of 30 years already and it still continues. This clearly shows the ongoing trend towards more Anglo-Saxon demeanour of governance in the Netherlands. As a consequence, 'urban area development' became the missing link between planning and the implementation (Heurkens, 2012).

power position		1980 - 2000	2000 - 2010	> 2010
		permitted planning	development planning	coalition planning
state				
market				
civic society				

Table 1.

Development of the Dutch Governance with regard to Urban Area Development. Adopted from Private Sector-led Urban Development Projects [dissertation] (p. 140), by E. Heurkens, 2012, Delft: Delft University of Technology, Faculty of Architecture, Department of Real Estate & Housing.

### 2.2.2 Urban area development types

Urban area development is a fairly broad concept that occurs in practice in several shapes and sizes. The main distinction made in literature is based on the location and field status.

#### Differentiation by location

According to the Reiswijzer Gebiedsontwikkeling, a practical guide regarding area developments created by several governments and NEPROM (Ministerie van BZK, Ministerie van IenW, VNG & IPO, 2011), there are three types of urban area developments: (1) inner-city developments, (2) new developments in outlying areas and (3) integrated area development on a regional scale. The dependency for the three types is mainly the location. Based on the Reiswijzer Gebiedsontwikkeling, the three types will be shortly discussed by means of their key features (Ministerie van BZK, Ministerie van IenW, VNG & IPO, 2011):

#### 1) Inner-city developments

These often concern redevelopments where fragmentation or stacking of functions is rather common and these are mostly located between existing buildings. That causes a relatively high degree of complexity and a high risk profile. Usually, there is a lot of capital present in the area, e.g. by rental income from existing properties. Acquiring land in these areas therefore requires large pre-investments. Another feature is that existing and future users are often intensively involved.



## 2) *New developments in outlying areas*

These concern total new developments that often comprise large-scale acquisition of land and a long lead time. Since the supply of homes, offices and retail properties is highly sensitive to economic fluctuations, flexibility in agreements is desired. Another typical feature is the risky sale of the properties.

## 3) *Integrated area developments on a regional scale*

This type of area developments is usually initiated by the province and several authorities are often involved. Typical is the long duration, the large size, the high layout costs and especially its focus, as this type of development is mainly done when areas have a multifunctional program where green and blue objectives dominate. In comparison with inner-city developments, current and future users are less involved.

### **Differentiation by field**

One can also interpret urban area developments by the level of contamination of the site on which the developments come about, and subsequently their (re)development potential: differentiating by means of the colour of the field (Duží & Jakubínský, 2013). Consider for instance brownfield sites. During the energy crisis of the 1970s, industrial cities were confronted with substantial petroleum shortages and surging oil prices. This has led to stagnant economic growth in many countries and moreover resulted in vacancy of entire industrial areas, after which these fell into decline (Kabisch, Koch, Gawel, Haase, Knapp, Krellenberg, Nivala & Zehnsdorf, 2018). In practice, such areas are often called brownfields. The prospective arenas for strategic urban planning and development according to Newton, Newman, Glackin and Trubka (2012) are these brownfields, as well as the so called greyfields. However, one can also make a distinction between blackfields and greenfields. Those terms are all used to distinguish development areas by means of their land and soil state. Below, these concepts will be defined in order to be able to demarcate this research with one of these more specific types of urban development areas.

### 1) *Blackfields*

Blackfields are seen as the most polluted areas with extremely high levels of contamination. These areas pose serious risks with regard to the environment and health of the local residents and ecosystems (Havrlant, 1998). It is a very exacting task to redevelop and most of the time, the remediation costs of these fields are even higher than the selling value (Pérez & Eugenio, 2018).

### 2) *Greyfields/grayfields*

With the term greyfield (or grayfield), one means (economically) outdated, failing or underused land or real estate, e.g. a shopping centre that no longer attracts sufficient investments or tenants. Greyfields are the type of undervalued or under-utilised real estate assets that have the potential to be redeveloped into prime investments. Unlike greenfields, greyfields have already undergone at least one development cycle. The grounds of greyfields are similar to brownfields in the sense that they are underused. However, unlike brownfields, they generally show little or no perceived level of environmental pollution. In other words, they do not have to be remediated prior to being able to create value for an investor. Yet, they can contain older types of infrastructure that may need to be replaced (Peters, n.d.). Furthermore, it is important to mention that the term greyfield is not that common. It rather is a neologism.

### 3) *Brownfields*

In contrast to the aforementioned greenfields, brownfields are construed as fallow urban areas: *"although they have been influenced by anthropogenic activities, they still have the potential for redevelopment."* (Duží & Jakubínský, 2013, p. 56). Brownfields are generally known for their redevelopment potential, but also for their cultural and historical qualities. These qualities can create representative architectural value, for instance by the use of industrial heritage. Using the term brownfields is now common practice (Duží & Jakubínský, 2013).

### 4) *Greenfields*

The colour green refers to nature. Hence greenfields are interpreted as clean, undeveloped land that has not been previously developed other than for agriculture or forestry use (Bobadilla, 2008). Greenfields are often located near the outskirts of towns/cities and larger metropolitan areas, generally in the shape of parkland, undeveloped open space or agricultural land (Great Lakes Commission, 2001, p.26). Their development potential is considered the largest amongst all in the sense of physical possibilities.



### 2.2.3 Brownfield redevelopments

A general and comprehensive definition for brownfield sites is provided by Alker, Joy, Roberts & Smith and reads: “*Any land or premises which has been previously used or developed and is not currently fully in use, although it may be partially occupied or utilised. It may also be vacant, derelict or contaminated*” (2010, p. 49). They rightly add that these sites are not available for immediate use, without interventions first. The focus in this definition lays on the fact that the previous use of the area is past tense, causing the area to be both (partially) unoccupied and unused. Also, this definition is not specific about the former function of the area, which makes it widely comprehensive and coverable for all kind of brownfields.

However, brownfield areas are usually known as former industrial areas within cities and that is thus partly correct, as the majority of brownfield areas is indeed located on industrial sites: for instance along railway tracks or in old military zones (Kabisch et al., 2018). But brownfields range on a broader scale of sites: “*they do not only cover industrial elements, but also agricultural, military or residential examples*” (Duží & Jakubínský, 2013, p. 55). These brownfields, usually devastated and abandoned sites, can therefore also be seen as environmental burdens caused by anthropogenic activities (Dulić & Krklješ, 2013; Havrlant, 1998).

Loures (2010) defines brownfields as ‘post-industrial landscapes’, where it is directly visible that the former function of the area is of importance, in contrast to the definition of Alker et al. (2010). Loures’ focus point however is not necessarily the industrial character of the area, but the actions that have to be taken to return these areas to productive use. He stresses the need to reintegrate brownfields into the community, where the more integrated and multifunctional longer-term solutions, based on cultural, social, economic and ecological objectives are the potential. They usually are high potential redevelopment locations within the inner urban agglomeration, also: “*an area of concentrated population and economic activities that is closely connected via a convenient transportation network and other infrastructures*” (Ni, 2008 in Fang & Yu, 2017). To substantially contribute to the current and future housing demand, large transformation areas must be addressed (Brink, 2017). In short, it can be concluded that brownfields thus deserve extra attention and should earn priority in developments. The following reasons support the decision to focus on brownfield sites within this research even more:

→ ***Sustainable***

Brownfield redevelopments are considered sustainable. By decontaminating and redeveloping them before greenfields, society ensures enough living space for future generations (Vanheusden, 2006). Moreover, the Plan of Implementation which is drawn up in response to the UN World Summit in 2002 about sustainable developments, argues that actions are needed “to increase brownfield redevelopment in developed countries” (World Summit on Sustainable Development, 2002).

→ ***Reduces pollution and safety risks***

Brownfield redevelopments are inextricably linked with the reduction and combat of the environmental pollution and the associated safety risks, as well to prevent serious incidents with a huge environmental impact (Vanheusden, 2006).

→ ***Reduces housing shortage***

It administers the shortage of housing in cities. Research shows that the market solely takes up a quarter of the Dutch housing program within the city centres (Verheul & Daamen, 2017). This slow uptake of market parties results in several disadvantageous consequences on urban environments and these need to be counteracted.

→ ***Regenerates the urban area***

Brownfield transformation is an important mean for urban regeneration. They provide the opportunity to reevaluate the urban fabric and can offer answers to degeneration and the degree of insecurity in areas too (Vanheusden, 2006).

→ ***Site-specific added values***

Brownfield transformations contain some added values that cannot be found in greenfield and blackfield transformations. For instance the fact that the infrastructure is already present (brownfields are mostly located at waterways, railway tracks or highways) as well as the utilities (electricity, gas, water, sewerage), which are not to be underestimated additional costs. It can moreover house more people in the city, which in turn leads to less traffic jams and air pollution (Vanheusden, 2006).

Cities are thus more and more confronted with the challenging task to deal with such brownfield areas, most obviously by means of regeneration (Dixon 2007; Williams and Dair 2007). The partial unoccupied and unutilised areas even let to the occasion where brownfields were becoming ‘laboratories’ for urban area regeneration. The next passage will go more in depth about the redevelopment of these fields.



## Redevelopments

Recent decades, brownfield redevelopments have been very popular with municipalities and property developers, but that has not always been the case. Since the 60's of the last century, the focus of the Dutch government was on expanding cities to the outskirts for more air, light, green and space. Only since the 90's, the focus shifted to densification of the existing urban fabric by means of urban redevelopments, supported by the Fourth Note on Spatial Planning (VINEX 1991). The intention of this shift was the pressure that occurred due to imminent vacancy of medium to large cities and city centres. The objective was to increase the attractiveness of cities for middle to high income groups by, amongst others, better utilising the (public) transport connections in order to limit commuting traffic. As a result, the industrial and port areas that often (partly) fell in disuse, suddenly had the possibility to realise these ambitions (Groenveld, 2017).

Not only in the Netherlands, but for the whole western society it is acknowledged that the major future challenge for urban planning and design lies in regenerating cities rather than expanding (Robert and Sykes, 2000). This again is accompanied by the focus shift of planners towards improving the urban environment within the municipal borders, rather than outside. Not only big cities face this challenge, it covers strategies for urban environments of all scales with a longer term strategic purpose in mind. Robert and Sykes call this urban regeneration (2000, p.16). They have created a comprehensive definition to this term: *"comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change"* (Robert and Sykes, 2000, p. 17). Furthermore, they emphasis the fact that it should contain a long-term and sustained strategic framework for the wider city developments, in stead of project based.

It now can practically be seen as a trend to regenerate / renew / refurbish / redevelop / recycle / retrofit these discontinued areas that often occupy central parts of the urban agglomeration. Within this thesis, the term 'brownfield redevelopment' will be applied to comprise this phenomenon.

## Barriers and benefits

On the one hand, redeveloping areas that have fell in disuse became a trend and is considered a positive approach towards sustainable urban development. On the other hand, this is not necessarily an easy task to carry out. The Netherlands, for instance, has got fairly strict spatial planning which makes it not easy or not even possible to develop a brownfield according to ones wishes. Project developers are bound by the destination of the area as stated in the zoning plan, in order to be eligible for permits. Zoning plan changes may be possible, though the juridical procedure usually takes up lots of time: 12 weeks for adoption by the city council and 6 weeks for lodging an appeal (SAB, 2010). During such periods, it is not recommended to take further steps in the development process because of the uncertain outcome. But what exactly may be built after the remediation of the field, will in the end determine the yields. Therefore, it is important to illustrate such barriers and prerequisites of urban area redevelopments too, particularly with respect to brownfield redevelopments.

Barriers	Experts	Public	Benefits	Experts	Public
High redevelopment costs	17.2%	4.1%	Reduce urban sprawl	17.2%	1.8%
Challenges in obtaining financial support	14.7%	10.8%	Encourage recreation and connectivity	13.1%	10.4%
Uncertain demand	12.1%	13.7%	Create affordable housing	12.7%	6.0%
Uncertainty about liability and cleanup issues	9.8%	16.2%	Encourage inner city investment	9.7%	1.7%
Long cleanup and site assembly	9.6%	3.2%	Increase property value	8.7%	3.3%
Available but under-skilled labor force	9.2%	2.2%	Create green open space	7.0%	18.7%
Practical uncertainties regarding remediation and construction	6.7%	2.5%	Protect and highlight industrial heritage	6.0%	1.8%
Unclear idea of monetary cost	5.6%	4.1%	Increase human-environment connections create green open space	5.8%	1.2%
Aging urban infrastructure	3.7%	1.0%	Utilise existing infrastructure	4.9%	1.2%
Ownership patterns	2.3%	6.4%	Increase sense of belonging	3.8%	2.7%
Etc.	...	...	Etc.	...	...

Table 2.

Barriers and benefits of post-industrial redevelopments according to experts and the public. Adopted from "Post-industrial landscapes as drivers for urban redevelopment: Public versus expert perspectives towards the benefits and barriers of the reuse of post-industrial sites in urban areas" by L. Loures, 2015, Habitat International, 45: 76.



Loures (2015) compared opinions of the general public (users) and experts (designers, project managers and developers) on post-industrial redevelopment by identifying and analysing 117 case studies from all over the world. He identified 17 barriers and 22 benefits to post-industrial redevelopments. In Table 2, the top ten is listed in order of most to least important according to the experts, as only the opinion of the experts is applicable within the scope of this research. They are the ones involved when realising these redevelopments and in order to incentivise them, their opinion towards post-industrial redevelopments is most relevant. For the experts, high redevelopment costs and challenges in getting financial support are the two main barriers of redeveloping post-industrial sites. For the general public however, uncertainty about liability and cleanup issues and the potential biological, physical and chemical impacts (one that is not in the top 10 of the experts) are the two main barriers. Regarding the main benefits, experts associate urban sprawl reduction, recreation and connectivity as most promising within post-industrial site redevelopment while the general public find the creation of green open spaces and jobs (not in the top 10 of the experts too) the most important. As has just been shown, both the second main benefit and barrier according to the general public is not even listed in the top ten main ones of the experts. Striking is thus the significant difference between the general public and experts opinions towards the relative importance of the identified benefits and barriers (Loures, 2015).

Hutchison and Disberry (2015) identified barriers of particularly housing development on brown-field areas. The significant most frequently occurring barriers were poor market conditions. Two other major barriers appeared to be to secure the planning permissions and to comply with the legal agreements between local authorities and developers concerning planning obligations as this is so time-consuming. They proposed solutions that should be promoted by the local public institutes to reduce these frictions and to encourage developers to propose plans for more effective redevelopments (Hutchison & Disberry, 2015).

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## **>> in short**

According to Heurkens (2012), urban area development became the missing link between planning and the implementation in the Dutch context. The demeanour of governance in the Netherlands is experiencing an ongoing trend from first a liberal to a more neoliberal, in particular Anglo-Saxon, approach since the 1980s. This implies changing directions towards the decentralisation of government powers, in order to increase the role of the market and civic society. Today, urban area development is found in various sizes and shapes. The main differences found are in the location of the site, which is either within the inner-city or at outlying areas, and in the level of contamination of the site, which is either contaminated with potential (brownfield), contaminated without potential (blackfield) or not contaminated at all (holds for both greenfields and greyfields). Finally, a distinction can be made by the scale of the area development, which is either on urban level or on regional level. The further characteristics, approaches and processes differ depending on the type.

## **>> research scope**

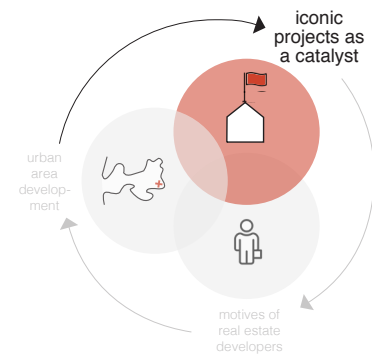
Inner-city developments fall within the scope of this research while new developments in outlying areas are out of the question, given the major transformation task that this research goes into. The regional area developments are out of scope given the fact that this research focusses on the role of project developers in urban area developments, which is limited here. Greenfield developments do not fit the cope of this research, as these are not located in the inner-city but in the outskirts and thus do not address the transformation task. Neither do blackfield developments, since these cannot create a healthy business model. Developments on greyfields and brownfields are the type of urban areas that do fall within the scope of this research. These can both be located within the inner-city and address the transformation task. However, the term greyfield is not common in literature and practice, in contradiction to brownfields. Also, the Netherlands does not demonstrably have a lot of potential on greyfield areas in comparison with brownfield areas, which is why these are considered less relevant.

Therefore, **this research is specifically about brownfield redevelopments within the inner-city**, which focusses on bringing a lasting improvement in the economic, physical, social and environmental conditions of an area. Due to high redevelopment costs and challenges in getting financial support but also due to uncertainty in demand and liability regarding the remediation of the field, brownfield redevelopment is a complex task. It however is interesting for developers as it encourages investments, reduces urban sprawl and encourages recreation, creativity and creates green spaces.



## 2.3 Iconic projects as catalysts

The second research concept is about iconic projects and in particular their function as a catalyst for urban redevelopments. First, iconic projects will be clearly defined, as this concept appears to be interpreted differently in and within different fields. Initially, the adjective 'iconic' sounds quite subjective but in order to be able to investigate this concept, it is important to make it less influenced by personal feelings. Therefore, literature is used to find out when a project could be classified as iconic. As several synonyms are used for iconic projects and the emphasis within their conditions differs mutually, these definitions and their similarities and differences are discussed as well. Once a clear position within the field of this concept has been taken, the spillovers of iconic projects will be addressed. §2.2.4 will finally go into theories on the catalysing effects of iconic projects.



### 2.3.1 The iconic value

Since the last two decades, flagship buildings have more frequently become an important tool used in strategies for transformation areas in urban development. In most cases, these projects are large and prestigious and, with that in mind, play a major role in a city's image. They often become a recognisable part of the city (e.g. the Erasmus bridge in Rotterdam) and an attraction for the raise of capital (Doucet & Van Weesep, 2011). Therefore, some cities use flagship buildings to develop a marketable image to consumers. Such flagships can be used by tourists and residents to orientate themselves, as they function as a landmarks which is 'hard branding' the city (Evans, 2003; Hannigan, 2003).

#### Flagship buildings

The term 'flagship' is thus often applied at projects that should give a boost to areas that are under development. The effects of this boost are often called 'catalysing' or 'spin-offs', as they should be physical, social and/or economic drivers for the surrounding area (Claassen, Daamen & Zaadnoordijk, 2012). The definition of the term flagship by Claassen, Daamen and Zaadnoordijk (2012) focuses on the initial intention of the flagship project: a project can be called a flagship when its located in or near an area that is under development and its intention was to give that area a boost. Flagships are also commonly mentioned in combination with a cultural function. Hannigan & Evans (2003) for instance associate flagships with buildings that often have cultural and entertainment functions, where innovative design trends are applied. Bianchini, Dawson and Evans (1992) looked further into flagship cultural projects. They typically see them as catalytic projects too, intended to incentivise investments and consumption throughout the surrounding area (Smyth, 1994). They thus put more emphasis on the economic externalities while Claassen et al. consider the externalities more broad, as they mention the social and physical drivers too (2012). Grodach (2008) describes flagship cultural developments and their impact as follows: "*iconic, multi-use and often large-scale facilities, (...) typically located in the central city and housed in buildings designed by world-renowned architects, which in some cases are attractions over and above the art inside.*" (Inam, 2014, p. 131). They have even become one of the most vested and remarkable arts-based economic development initiatives throughout the world (Grodach, 2008). Although they often are designed as a distinct architectural icon, they will in the end always be confronted with 'brand decay'. Their uniqueness is purely temporary, as the construction of more new and impressive buildings will always continue, also called 'the inflation of icons' which means that the iconic value of projects eventually decreases and shows that icons are not always permanent (Evans, 2003; Verheul, 2012, p. 28).

Grodach describes the catalysing character of cultural flagships, such as museums and art centers. He states that arts are more and more seen an essential component of central city redevelopment by local governments (Grodach, 2008). A new paradigm is to use flagships like iconic museums, to deliver a physical transformation. Projects like these are used for urban regeneration. This could also be defined as the 'Guggenheim Effect', as the paradigm can be compared with the intention of major strategic projects like the Guggenheim museums. These are good examples of project-led urban regeneration, amongst others used for urban and areal marketing and for stimulation of wider cultural and economic developments (O'Donoghue, 2014; Ashworth, 2009).



## Flagship projects

A flagship however, does not necessarily need to be a building. Ashworth (2009) stated that the architecture of flagships must be notable and noticeable, so that it will be seen and discussed. Great examples of highly visible objects that express both aesthetic and engineering skills undoubtedly are highly distinctive bridges. These usually are centrally located, become a long-term city icon and, according to Dutch star architect Rem Koolhaas (1994) in the New York Times, express “*the propagandistic nature of architecture*” the best. Famous and commonly known examples of such flagships are the Erasmusbrug in Rotterdam (see §4.2.3 for an impression), the Tower Bridge in London and the Golden Gate Bridge in San Francisco (Ashworth, 2009). The fact that even bridges can be flagships too, shows the broad range of products that can be appointed a flagship and thus proves its broad meaning.

According to Doucet and Van Weesep (2011), flagships attract three target groups: 1) real estate investors, 2) tourists and 3) new residents, usually with high-incomes. Furthermore, he found seven objectives of flagships (Table 3). In order to achieve those flagship objectives, two prerequisites for flagship structures to be successful should, according to Ashworth (2009), be attained. The first prerequisite is that the architecture must be notable and noticeable, so that it will be seen and discussed. At its simplest, this may even be a matter being the tallest one around. The second is about the architect, who should nearly be as unique and outstanding as the flagship itself, where functionality and quality are practically irrelevant. In practice, such architects are often called ‘starchitects’, which refers to ‘star architects’. Good examples are the Guggenheim museums that are considered architectural masterpieces, designed by starchitects Frank Lloyd Wright and Frank Gehry.

Yet, this master thesis mainly relates to Doucet and Van Weesep’s second objective which focuses on the economic aspect of attracting new capital by means of flagship buildings, in order to create a safe haven for further investments (Table 3). A striking example of a flagship that had such an objective is again the Erasmusbrug in Rotterdam. There is a two-fold line of reasoning that must be addressed, regarding the choice of this development (Doucet & Van Weesep, 2011). First, the Maas had to be crossed, so that a better connection could be created between the northern and southern part of the city. Second, it was build for a strategic reason: to make a statement towards the public. It does not have a regular design, it is considered iconic and yet even became one of the most recognisable structures of the city. The bridge acted as a metaphor for the belief of the municipality and the governmental parties involved, in the potential of the southern part of Rotterdam. It truly created ‘a safe haven for further investments’ (Doucet & Van Weesep, 2011), as the Kop van Zuid now is considered a very successful transformation area. The municipality of Rotterdam even sees the area as an example for old port areas that yet need to be transformed (Gemeente Rotterdam, 2007). This single development can already confirm part of the expected results, namely that an assembly of certain spillover effects of iconic projects are able to catalyse developments in the surrounding area. What spillover effects and thus initially which conditions of iconic projects this is about, will be investigated in the case studies.

Table 3

Flagship’s objectives and their desired effects. Adapted from “Waterfronts als flagships in Rotterdam en Glasgow,” by B. Doucet & J. Van Weesep, 2011, *Roelijn*, 44(2), p. 100.

	Flagship objective	Desired effect
1	To polish up the image of the city	The creation of a new icon or image for the city
2	<b>To create a catalysing effect for raising capital</b>	<b>The creation of a safe haven for further investments</b>
3	To create or promote a tourist destination	Making the city known among tourists (eg Guggenheim Museum, Bilbao)
4	To promote gentrification	Attracting wealthy residents through the construction of high-quality housing
5	To climb in the urban hierarchy	To overcome urban competition for investments
6	To generate trickle-down effects	To let everyone ultimately benefit from investments in high-quality functions
7	To generate mutual benefits	To fulfil direct social objectives (e.g. jobs, social housing and infrastructure)

## Iconic projects

Flagship buildings are thus mainly known for their outstanding architecture and promoting and attracting intentions. One of their desired effects could also be to become an icon for the city (Doucet, 2011). Although icons are not equal to flagship projects, they do have a lot of similarities. Sklair defined icons the following way: “*Icons are famous not simply for being famous, as is the case of*



*various forms of celebrity, but famous for processing specific symbolic/aesthetic qualities, qualities that are the subject of considerable debate within the recent rise of blogosphere, debate to which the general public actively contributes.*" (2010, p. 136). Within this definition, Sklair emphasises the understanding and the contribution of the general public to the debate about the qualities that make certain projects iconic. Moreover, he writes that there are many values that projects could be iconic for, where he took the aesthetic, symbolic and historical value into account for his studies.

Zukin uses the word "trophy buildings" when he talks about buildings that are designed with iconic architecture. These are more often than not designed by starchitects, whose names turn architecture into luxury commodity. Their buildings are considered pieces of art and often contain contemporary design features (Maschaykh, 2015). Such buildings, that look unique and individualistic, become popular and are high in demand as they are scarce and stand out from the architectural crowd. When comparing this with Sklair, one could say that Zukin mainly emphasises the aesthetic value of icons; a more architectural approach to the iconic value of projects.

When a project is appointed to be an icon, this does not by definition mean that it will be an icon forever. For a project to reflect the zeitgeist while surviving political changes, economic instability and human taste, it needs lasting qualities which may be most evident in historical buildings (Maschaykh, 2015). Those project are often used for urban branding strategies of cities, as their status gives cities a sense of uniqueness and identity. It moreover does not by definition mean that an icon will be an icon for everyone. The iconic value differs per target group and culture and depends on personal preferences too. Because of this, the aesthetic or symbolic value can in principle label any object iconic, but the differentiation is made by 1) intensity, the scale in which an object is appointed iconic; 2) support base, the diversity of support by urban users such as observers and visitors, but also by for instance architects, property developers and investors; and 3) sustainability, the ability to stand the test of time, as icons usually represent a culture of a society in a certain period (Verheul, 2012). The differentiation of iconic projects is however made more clear by assigning them with the following related functions (Verheul, 2012):

**1) Having symbolic and postcard value**

Icons should be easily portrayed, photogenic and reducible to the size of a stamp. They function as a symbol for the city because of their recognisable shape, which works best when it is compressed and conspicuous, and both recognisable and unclear so that it is open to the interpretation of the observer. The symbolic meaning is however also based on the historical cultural value.

**2) Implying sacralisation**

Decades ago, cities primarily were places where people came to work, manufacture and trade. Nowadays, the city has increasingly become a place where people come to experience. Therefore, cities use urban icons as marketing products to present themselves to the consumer. And it bears fruits, as the most common activity of a tourist is 'gazing at signs', i.e. focussing on the striking features of a place. Therefore, 'site sacralisation' applies: in the current cultural economy of experience, urban icons are representing physical objects that have metaphorically been declared sacred.

**3) Providing identity or a certain sense of public pride**

Icons only matter in relation to the city and thus do not stand alone. They should become symbols that make the city unique. Municipalities respond to this by realising urban icons of which the city and its residents can be proud. These regularly receive a nickname based on both positive and negative associations. Such nicknames are to some extent associated with the particular shape of the object, e.g. 'De Zwaan/The Swan' as a nickname for the Erasmus Bridge in Rotterdam because of the asymmetrical structure with a high inclination. However, they can also say something about the public reception of both the object and its realisation, e.g. 'De Zwemtunnel/The Swimming Tunnel' as a nickname for a subway in The Hague that regularly flooded. The process of creating identity by means of icons thus is influenced by both initiators and visitors.

**4) Bringing economic or socio-cultural spin-offs as a catalyst**

Urban icons should function as a catalyst for the surrounding urban area, or even the surrounding district, city or region. This catalysing function of an icon is expressed by economic spillover effects, when it for instance increases surrounding land values or the footfall of surrounding restaurants and shops. Due to such spillovers, the realisation of an icon is often initiated by local authorities. Icons can for instance also be used to improve a backward neighbourhood, also known as public-led gentrification. Then, there is cultural and social spillover effects to deal with too. The question remains however whether these projects do good for the neighbourhood solely or for the residents too.



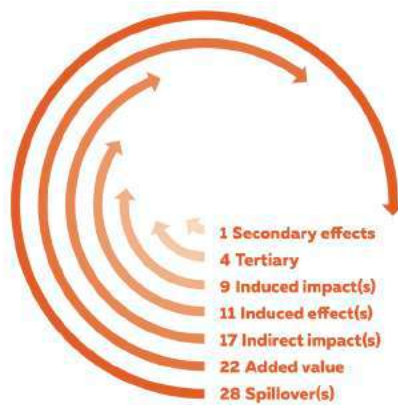
### 2.3.2 The catalysing effects

In order to examine the common spillover effects of iconic projects, it is good to look at the actual meaning of the word first. The foundation of the 'spillover effect' concept could originally be found in the field of economics. It refers to the process of transferring benefits from one area to another and thus focusses on the positive spillovers only. According to the Cambridge Dictionary, spillover means: "*the effects of an activity that have spread further than was originally intended.*"<sup>1</sup> Here it is stressed that spillovers are actually unintended effects while, as discussed before, iconic projects are often initiated just because of the spillover effects that are expected to take place. As this definition stresses the fact that spillover effects are effects that originally were not intended, it does not suffice for this research.

The European Research Partnership and Tom Fleming Creative Consultancy worked on a definition of in particular cultural and creative spillover effects, taking into account 98 cases of previous case studies on spillovers. They also created a more broad definition of spillovers in any area: "[T]he process by which an activity in one area has a subsequent broader impact on places, society or the economy through the overflow of concepts, ideas, skills, knowledge and different types of capital." (TFCC, 2015, p. 15). They moreover mention that spillovers are not time-bound and that they can be both intentional and unintentional, planned and unplanned, direct and indirect, negative as well as positive. Since this definition does not take a position on the intention and doesn't imply positivity or negativity, it will be the meaning of the spillover concept for this research.

Figure 4

Terminology for spillover effects in literature by categorising 92 of the 98 studied reports. Reprinted from "Cultural and Creative Spillovers in Europe", by Russell, R., Dennett, T., Price, M., Gorny, D., Andreeva, T. & Fesel, B. for TFCC, 2015, p. 23.



Through the investigation of those 98 carried out case studies on spillovers, Tom Fleming Creative Consultancy was able to create this overall comprehensive definition of the concept after analysing the terminology that was previously used (TFCC, 2015). In terms of language used to discuss this concept, the term 'spillover' was used in the majority of studies but many other terms were applied (Fig. 6). It is striking to see that 'spillover' is followed up by 'added value', as this term emphasises the positive impact of the activity only. This builds on the concept that is used within the field of economics, that refers to the process of transferring benefits from one area to another. For this research it is important to also take the negative impacts of iconic projects into account, as it is quite known that those take place as well. Therefore, the most widely used term is also the most applicable term for this research: spillover.

Flagships however do not only have positive spillover effects on the surrounding urban area, neither will their intentions by definition be realised. Majoor (2009) for instance wrote about the effect of (unconsciously) moving away from previous intended social objectives of projects at the Zuid-As regarding the connection with the surrounding districts. A well-known phenomenon with regard to iconic projects is also the 'Guggenheim Effect': iconic projects "*may be no more than an illusion generated by wishful thinking*" (Ashworth, 2009, p. 16). The danger here is that the buildings indeed are remarkable and highly visible, though their attention is not beneficial for other aspects of that place. It therefore is unlikely and not realistic to assume that flagships are automatically successful projects, simply by being built and by being outstanding (Smith, 2011).

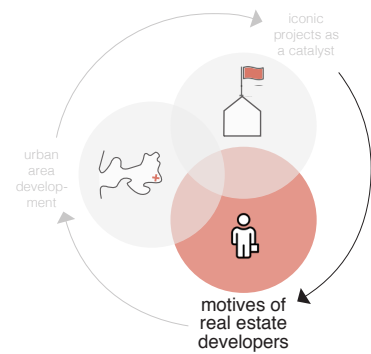
Moreover, what is called 'design cataloguing' can be provoked by successful iconic developments: a concept that refers to the replication of former unique structures hoping to achieve the same successes, however thereby defeating the initial objective of creating something unique. The creation of unique structures entails taking risks, and those can be minimised by using the success factors of former, already realised flagship projects (Ashworth, 2009). In addition, every success has its disadvantages somewhere. Some researchers even say that these project successes only come at the cost of social exclusion, displacement and less attention to local artistic activities (Miles 2005; Rodríguez, Martínez, & Guenaga 2001). Other problems related to the spillover effects of iconic developments on the surroundings are on the same note, such as, according to Evans (2003) the unavoidable effect of gentrification and homogenisation. Iconic projects attract higher incomes by the placement of new, high-end consumption activities and they drive rents upward, consequently displacing current tenants.

<sup>1</sup> Spillover. (2018). In CambridgeDictionary.com. Retrieved on December 29, 2018 by: <https://dictionary.cambridge.org/dictionary/english/spillover#dataset-cald4>



## 2.4 Motives of private real estate developers

This paragraph reviews the last research concept by going into the characteristics and competencies, the role and subsequently the motives of real estate developers. With regard to the former two research concepts, there was sufficient literature available to create a solid foundation for the empirical research. Plenty of articles about urban area redevelopments and advices for brownfield regenerations were found (§2.2) and lots of research was carried out on the impact of iconic projects on the society and the environment too (§2.3). Regarding the design and construction management, planning and finance of the development process, there is substantial literature available as well. Regarding the behaviour and motives of project developers in the development process however, there is little literature to be found. The developer's perspective is not widely scientifically substantiated and moreover, their perspective could differ a lot nation wide. The scope for this research is limited to the Netherlands. Some aspects are therefore bounded to Dutch literature in order to create a comprehensive picture of the process and the perspective of Dutch project developers. With the help of a select number of sources, however, the research concept has been sufficiently discussed so that a solid answer can be given on the first subquestion in §2.5.



### 2.4.1 The real estate developers

Within this research, the scope with regard to development motives is limited to the motives of Dutch project developers. When looking at large scale area (re)developments however, the initiative often lies by public parties, in particular by local governments. In those cases, public parties mainly create spatial and legal conditions after which property developers again take the more concrete initiative. Public parties cannot go that far in project developments as private parties can, that is simply how it is legislated in the Netherlands. Currently, they have to either sell the land to the highest bidder or use a market selection procedure where a winning party will be chosen based on the best price and quality ratio (Veenhof, 2018). Also, efforts are increasingly being combined by means of joint commissioning, often applied to urban renewal and area development projects. Governments and developers are then acting jointly (Nozeman & Fokkema, 2008). According to Nozeman and Fokkema however, almost two-thirds of the project developments are initiated by professional private real estate developers (2008, p. 322). Therefore, this research focusses on the motives of the most common initiative taker: the private real estate developer.

#### The developers' role

According to Deloitte, real estate developers in practice function as both the link between the demand and supply of real estate and the link between the end user and contractor (2010, p. 14). According to Millington (2000), properties are being developed in order to fulfil the needs and demands of the society. These two statements show the importance of the developers' position in both the realisation of the needs of society and in the realisation of projects. Boyd and Chinyio (2006) rightly state that the role of the developer is as "*an intermediary between the property, business and finance sectors*" (2006, p. 114). They are often the initiators, take project realisations for their own account and risk and are involved in a continuous change of activities regarding project developments: the acquirement, design, construction, marketing and management. One could say that developers are a vital component within project realisations and play the key role.

#### Characteristics and competencies

Both Nozeman, Helleman and Kazemi et al. studied the characteristics and competencies of Dutch real estate developers. Based on their studies, Heurkens listed the main characteristics and competencies of Dutch real estate developers (2012, p. 145). Also Boyd and Chinyio were able to make general competencies of private real estate developers (2006, p. 144). These however can all be considered strong, daring and useful. According to Putman (2010), private real estate developers have got weaker characteristics and competencies too and he has mentioned a number of them. A clear overview based on the characteristics and competencies found in aforementioned literature is created in Table 4, categorised as either 'general', 'strong' or 'weak'.



	General	Strong	Weak
1	Real estate development <sup>1</sup>	Risk-bearing investors in land positions <sup>1</sup>	Bureaucratic <sup>2</sup>
2	Concept development <sup>1</sup>	Risk-bearing investors in plan development and preparation <sup>1</sup>	Portfolio fit is more important than the developments themselves <sup>2</sup>
3	Product development <sup>1</sup>	End user market knowledge <sup>1</sup>	May lack understanding of their own decision-making because of the differentiated nature of the organisation structure <sup>2</sup>
4	Project management <sup>1</sup>	General market knowledge <sup>1</sup>	Business model based on production repetition <sup>3</sup>
5	Network relations <sup>1</sup>	Contracting and organising expertise <sup>1</sup>	Lack of transparency <sup>3</sup>
6	Functional structure <sup>2</sup>	Communicating and marketing expertise <sup>1</sup>	Lack of end user market knowledge <sup>3</sup>
7	Desire great certainty <sup>2</sup>	Rational procedures <sup>2</sup>	Bad reputation since the crisis <sup>3</sup>
8		Undertaken decisions are both thoughtful and quantifiable <sup>2</sup>	Strong internal focus <sup>3</sup>
9		Have financial strength <sup>2</sup>	
10		Creative <sup>4</sup>	
11		Risk analysing <sup>4</sup>	

Table 4

Characteristics and competencies of private real estate developers divided into three categories. Based on (1) Nozeman, Helleman and Kazemi et al. in "Private Sector-led Urban Development Projects", by Heurkens, E., 2012, p. 145; (2) "Understanding the construction client", by Boyd, D. & Chinyio, E., 2006, p. 144; (3) "Een niche ontwikkelaar?: Een toekomstperspectief voor de projectontwikkelaar in gebiedsontwikkeling", by Putman, M., 2010.; (4) "Handboek Projectontwikkeling: een veelzijdig vak in een dynamische omgeving.", by Nozeman, E. & Fokkema, J., 2008.

As visible in the third and eighth row, some contradictions are present. Heurkens (2012) found in the studies of Nozeman, Helleman and Kazemi et al. that developers have the competency of having end user market knowledge, while Putman (2010) elaborates on the lack of end user market knowledge. Boyd and Chinyio (2006) describe the rational character of developers (i.e. row 7 and 8) where they emphasise the thoughtful and quantifiable decision-making of developers, while they also emphasise the lack of understanding of their decision-making as a result of differentiated organisation structures. Furthermore, developers are named risk-bearing (1<sup>st</sup> and 2<sup>nd</sup> row) but have the competency of desiring great certainty too (3<sup>rd</sup> row). These contradictions again show the difficulty of generally summarising the characteristics and competencies of Dutch real estate developers.

### Developer types

Little literature on the characteristics and competencies of developers can be found, which probably has to do with the fact that it is difficult to summarise and generalise them. Every developer has its own qualities. The vision and mission of developers could be completely different per company and therefore their characteristics and competencies too. On the other hand, it is possible to make a categorisation of the different types of developers. Nozeman and Fokkema for instance succeeded in identifying five types of Dutch project developers. They are distinguished from each other by the objectives of their developments and the types of development projects. Below, the five types of project developers will be shortly discussed by means of their key features (Nozeman & Fokkema, 2008, p.15).

#### 1) The independent developer

These developers operate independently in the sense that they buy land themselves, to consequently realise properties for their own benefit and at their own risk. These developers are most common, and mainly are small companies. They can be successful with niche products or a personal, specific approach. If so, they often seem to be acquired by a larger company. The gap they consequently leave behind will then be taken up again by a new independent developer.

#### 2) The contracting developer

The origin lays in the field of construction and they develop real estate in order to provide themselves with projects. These developments thus safeguard the project continuity, as they do not entirely depend on external projects.

#### 3) The investing developer

The investing developer is developing for the portfolio of an institutional investor. The main objective is to ensure and increase yields of the real estate. They particularly focus on the long-term, in contrast to the so called 'hit-and-run developers'. Also, continuation in cash-flow is of importance as well as the involvement of end users, as final occupiers of the properties in development.



#### 4) The funded developer

These developers have a strong focus on the continuity and the turnover of developments for the financiers, the bank, and often acquire large amount of land. They are able to do that because of their availability of, and accessibility to sufficient amounts of capital by the financier.

#### 5) Others

Other types of developers than above originate from other sectors and thus other core businesses. They obtain positions in developing properties based on their business operation. These are for instance retail or railway companies.

Boyd and Chinyio categorised three types of developers. These are distinguished by scale, financing, time horizon and personnel (Table 5). The last category: smaller property companies, is rather broad and therefore has found to be difficult to summarise. The developer types all differ in at least four categories, but they have things in common too. All developer types are namely considered highly experienced, with high expectations and beliefs about their developments (Boyd & Chinyio, 2006).

Table 5

Three types of developers distinguished by scale, financing, time horizon and personnel. Based on "Understanding the Construction Client", by Boyd & Chinyio, 2006, p. 114-116.

	Property companies	Traders	Smaller property companies
<b>Scale</b>	Largest, include the big players	Small	Small: can be individuals, families or small investment groups
<b>Financing</b>	Mostly stock-market long-term capital	Short-term bank and institution loans	Mainly by their own finance, often obtained from other enterprises
<b>Time horizon</b>	Retain properties in their portfolio over time	Do not retain properties in their portfolio	May/may not retain properties in their portfolio, but portfolio is not substantive enough to be a risk-mitigating device
<b>Personnel</b>	Managed by a professional corporate team employed by the company	Managed by small professional teams which often have a stake in the developed	Business people that may have no professional training

Although there are some similarities between the 'traders' and the 'independent developer' and between the 'property companies' and the 'investing' and 'funded developer', the developer types of Nozemand and Fokkema and the types of Boyd and Chinyio (Table 5) are hardly comparable. There is one characteristic that they all have in common despite the many contextual differences, and that is their obvious incentive to make profit which you could say is their *primary raison d'être* (Boyd & Chinyio, 2006).

### 2.4.2 The motives

Successful developments sometimes seem very obvious afterwards but prior to the development, decisions were often not taken lightly. "*A successful development means that a solution that satisfies in each area has to be found and that these act together to form a whole.*" (Boyd & Chinyio, p. 118). In earlier stages, there could be serious doubts about the developments and in order to take these doubts away and to make a development successful, "*a number of factors need to come together and should make it work, both in business terms, in political terms and as a building.*" (Boyd & Chinyio, 2006, p.118).

In literature, several reasons for real estate developers to take the initiative are found. According to Nozeman and Fokkema, this is for instance because the housing needs of a property user has changed (2008, p. 28-29). The user could therefore look for new or adjusted housing by using the support of a real estate developer. This could also happen on a larger scale where a(n) (local) authority publishes a tender for the (re)development of an area, which for instance is about a brownfield area that has lost its original function. When a property becomes vacant, the opportunity arises to initiate a redevelopment too. This is done with the former Shell head quarters in Amsterdam Noord, which now has become the popular A'DAM Tower developed by Lingotto. It could also be the case that a property doesn't becomes vacant, but that a developer sees other (re)development opportunities after researching particular market segments. The developer could first create a concept, then search for a suitable location to acquire, to then realise the concept (Nozeman & Fokkema, 2008, p.28-29).

The major motive of the initiator, in this case the developer, however, is the belief that the project will be profitable, i.e. obtaining maximum yield against a manageable risk level. This crucial provision requires several competencies, like having market knowledge, being creative and having the ability to make rational risk analysis (Nozeman & Fokkema, 2008, p. 42). The business plan thus mostly is the driver of developments (Boyd & Chinyio, 2006).



## 2.5 Theoretical framework

To gain insights into the existing theories and knowledge on the catalysing effects of iconic projects and the motives of private real estate developers, this literature review has been conducted. The results are synthesized into a theoretical framework what clearly shows what is yet known (and what is not) as regards to the research concepts. Based on these findings, the conceptual model has been operationalised as well. This framework functions as the foundation for the empirical research and is used to answer the first research question:

1)

*What does literature say about the catalysing effects of iconic projects and the motives of private real estate developers?*

### >> the iconic definition




Any special object that attracts people, draws their attention and surpasses the everyday can in principle be encountered as iconic. The degree of iconic value however, will differ regarding the intensity, support base and sustainability. Based on research discussed in this chapter, the definition of an **iconic project** within this thesis will be the following: “*Projects that (I) are considered high-profile and prestigious both by experts from the field (II) as by the general public, (III) that provide a sense of uniqueness and identity to the environment and (IV) that function as a catalysts in the surrounding environment.*” As an answer to the question, the structure must meet the conditions that are numbered within the proposed definition in order to be classified as iconic. The first two conditions imply that a wide and diverse support base is present regarding its iconic value. The third one is self-explanatory and the last condition implies that the project should function as a meaning creating, public attracting, trust gaining or history calling catalyst.

### >> the spillover effects

Many spillover effects can occur because of (the development of) iconic projects. They can be both economic and socio-cultural, however it is important to see where and at what scale level the spillover effects are visible. Both positive and negative impacts will (un)expectedly occur in urban developments, thus must be carefully noted too when assessing the impacts of icons. Hence, a clear overview of the main spillover effects of iconic projects has been provided (Table 6).

Table 6

Overview of the possible spillover effects of iconic projects. Adapted from (Verheul, 2013<sup>1</sup>; TFCC, 2015<sup>2</sup>; Evans, 2003<sup>3</sup>; Verheul, 2014<sup>4</sup>; Doucet and Van Weesep, 2011<sup>5</sup>).

Spillover effects of iconic projects	
 <b>Economical impact</b>	Increasing property values around the iconic project <sup>1,3</sup> Increasing revenues for local restaurants/stores/hotels <sup>1</sup> The emergence of new business activities <sup>1</sup> Employment growth <sup>2</sup> Stimulating private and foreign investments <sup>2</sup>
 <b>Physical impact</b>	Stimulating urban development, regeneration and infrastructure <sup>2</sup> Impact on residential and commercial property markets <sup>2</sup> Place-making <sup>2</sup> Creates a more appealing view of the area <sup>1</sup>
 <b>Sociocultural impact</b>	Attracting new, often wealthier residents <sup>3,5</sup> Gentrification <sup>3,5</sup> City branding <sup>2,3</sup> Being a symbolic and postcard value for the city <sup>4</sup> Increase in the housing demand in the area of the iconic building <sup>1</sup> Building social cohesion, community development and integration <sup>2</sup>



## >> the catalysing effects

Iconic projects have the ability to catalyse surrounding physical urban redevelopments by being an economic and sociocultural driver for the surrounding area.

### *Economic driver*

Iconic projects drive up property values around because of an increasing housing demand in the area and because they generate a more appealing view of the surrounding area. Restaurants, stores and hotels are doing better after the arrival of iconic projects, which generates employment and demand for such functions. This makes the area in which the iconic building is located become interesting for investors. Property developers will anticipate on this by developing in the same neighbourhood, as conditions to find parties that are willing to invest in the residential and commercial property market are good. The economic drivers thus function as a catalyst for surrounding redevelopments.

### *Sociocultural driver*

Iconic projects are high-profile and prestigious. The redevelopment of urban areas in which these are already located, often goes along with the attraction of wealthier residents: gentrification. This makes it even more interesting for parties to invest and develop, as residential developments for the higher sector usually generates a higher yield in comparison with residential developments for lower segments. Moreover, the iconic building will provide identity to the city and area, what attracts tourism. The area gets more known and popular and, as a consequence, will be more actively visited. This requires several functions that will have to take place in renovated or newly built properties. The socio-cultural drivers thus function as a catalyst for surrounding redevelopments too.

## >> the developer's motives

This research uses the private real estate developers types distinguished by Nozeman and Fokkema (2008), as they focus on the Dutch market and therefore are most relevant for this thesis. The distinction is moreover supported by Heurkens (2012) and several master theses from the Delft University of Technology, in contrast to the distinction that is made by Boyd and Chinyio (2006). The developer type 'others' however is left out, as this type is too broad and therefore their motives could not be generalised. The motives, which are equivalent to intentions (Anscombe, 2000), of these developers' types can unfortunately not be clearly obtained from the same or other studies on these developer types, but can be assigned with help of the above mentioned literature sources (Table 7). The empirical part of this thesis will go further into the aspects that ensure a healthy business case (4th row) and to what extent iconic projects and its spillover effects may play a role.

Table 7.  
Motives per  
type of private  
real estate  
developer.

	The independent developer	The contracting developer	The investing developer	The funded developer
1	To create a profitable development by obtaining maximum yield against a manageable risk level			
2	Develop because they believe they could offer the best price/quality ratio at a tender			
3	Develop because they think they could be the highest bidder for land			
4	Sees a healthy, often short-term business case in a certain piece of land/property - <i>could be at own initiative and risk</i>	Sees a healthy business case that immediately provides a construction project for them-selves - <i>could be at own initiative and risk</i>	Sees a healthy, long-term business case - <i>could be at own initiative and risk with the financier's capital</i>	Sees a healthy, long-term business case - <i>could be at own initiative and risk with the financier's capital</i>
5	Develop as they see the chance to realise their niche products or personal, specific approach	Develop as they see the chance to realise their niche products or personal, specific approach	Develops to ensure and increase yields of real estate for the portfolio of the institutional investor	Continuously develops to create turnovers for its financiers
6	Develop as requested by a customer's specific needs	Develop as requested by a customer's specific needs	Develops and retains property in portfolio for a continuous cash-flow	Develops and retains property in portfolio for a continuous cash-flow



## >> operationalisation of the main concepts

Figure 5.  
Simplified version of the conceptual model.

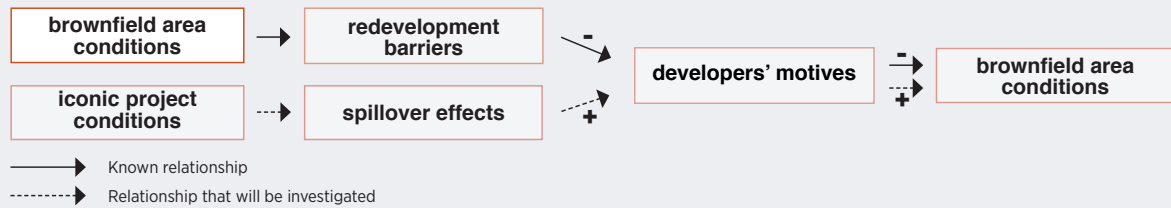
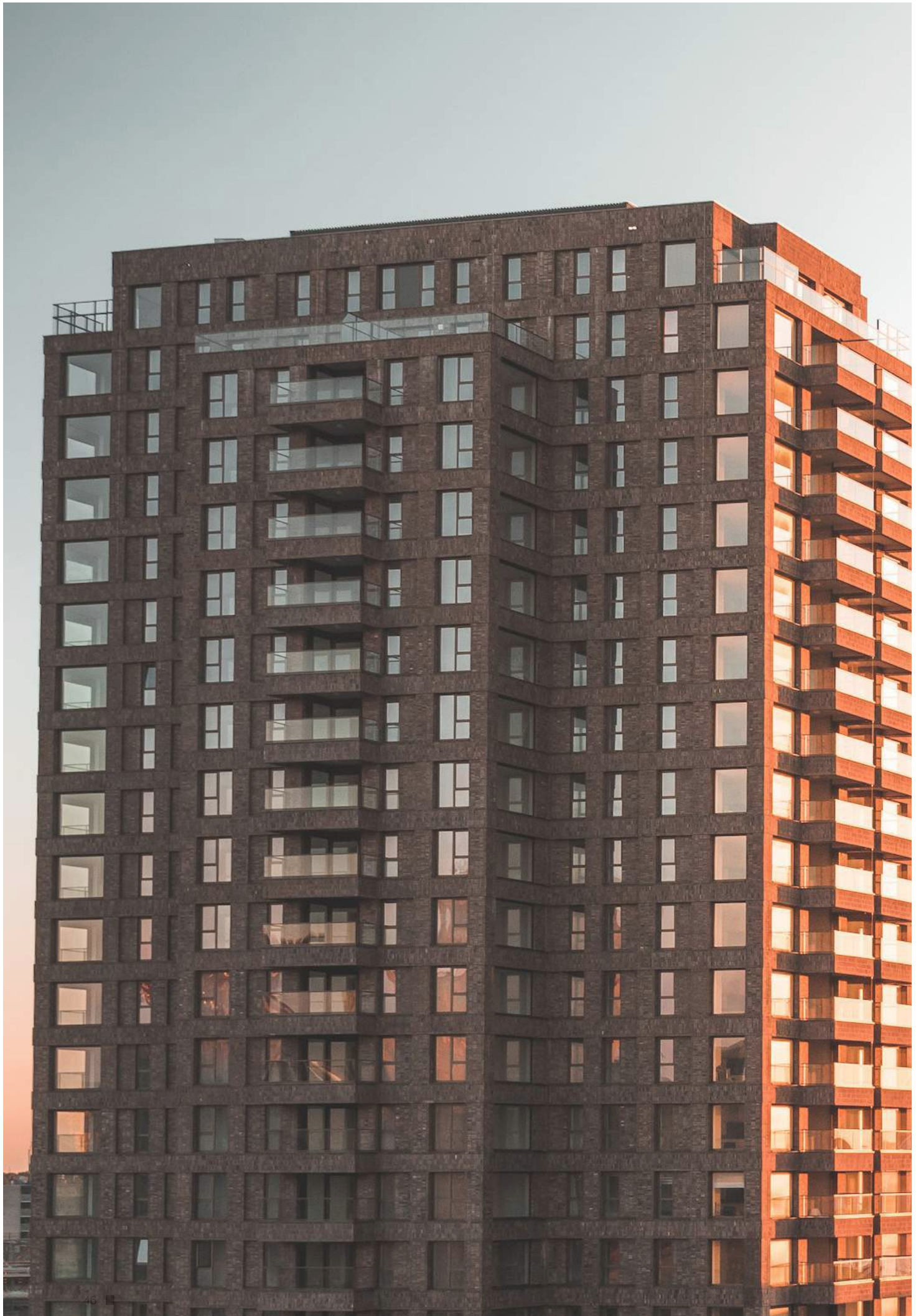


Figure 6.  
Operationalisation of the variables of the conceptual model.











## SECTION III

### methods

*Motivating the use of (the specific) case studies, semi-structured interviews and an evaluation panel and illustrating requirements that assess iconic values.*

### **3. Methodology**

#### **3.1 Research rationale**

- 3.1.1 Literature review
- 3.1.2 Qualitative case studies
- 3.1.3 Case study selection
- 3.1.4 Synthesis

#### **3.2 Data collection approach**

- 3.2.1 Iconic project assessment
- 3.2.2 Interview set-up

#### **3.3 Ethical considerations**



# 03

## Research methodology

Chapter three explains the research methodology choices that have been made. The several research methods and techniques are illustrated in the research design and briefly discussed. This is followed by a more extensive elaboration on the specific data collection approaches. The chapter ends with an elaboration on the ethical considerations that have been taken into account while carrying out the research.

### 3.1 Research rationale

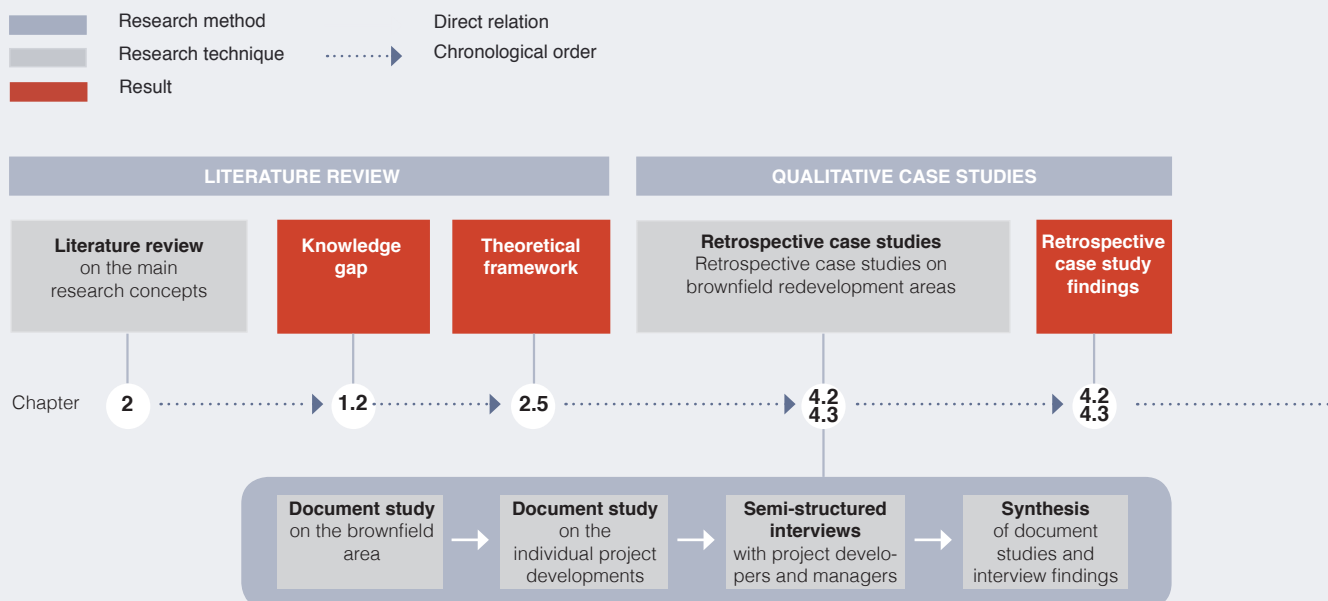
The interrelationships of all methods and techniques that have been applied to conduct this research are illustrated in Figure 7. In the following paragraphs, the applied techniques will be motivated for each research method used. The goal of conducting case studies will be clarified first, after which will be elaborated on the specific case study types that have been used. Subsequently, the case selection process has been clarified and the specific techniques that will be deployed within the case studies will then be described. The data collection approach is considered in §3.5 which contains a motivation of the interview set-up structure and the iconic assessment method that is used to identify iconic projects.

#### 3.1.1 Literature review

The goal of the literature study is to gain better understanding of the research concepts by identifying and getting familiar with a substantial amount of related literature so as to create literature awareness. The three main research concepts studied are *urban area development*, *iconic projects as a catalyst* and the *motives of real estate developers* (Figure 3). Based on literature study, answer can be given to first subquestion. This answer creates a solid theoretical framework (§2.5) needed to reflect further development toward new knowledge. It is supported by the most current literature on the related concepts and intended to serve as the main knowledge base for the empirical part of this research (Groat & Wang, 2013).

Moreover, the knowledge gap has been clarified through literature study by capturing the problem statement (§1.2), substantiating the scientific relevance of this research (§1.6) and refining the research questions (§1.3.2). During the case study executions, more literature study has been

Figure 7.  
Methods and techniques used to conduct the research.





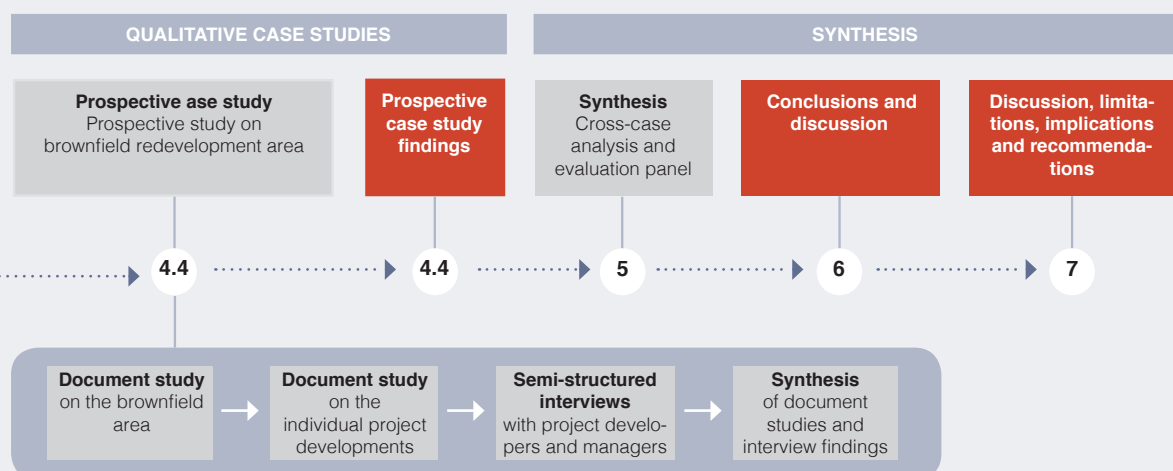
done for the data analysis and to further enhance the research process. Furthermore, reference has been made to the literature review again in the discussion chapter in order to compare the empirical findings with the theoretical findings. The conclusions of this research will finally contribute to scientific literature again, in order to partially fill the knowledge gap identified.

### 3.1.2 Qualitative case studies

To gain insights from Dutch practice in the catalysing effect of iconic projects on brownfield area redevelopments, three case studies have been conducted. This will be the best research strategy to give answer to the main research question, as (1) the type of research question is explanatory and deals with operational links needing to be traced over time rather than for instance mere frequencies, and (2) part of the focus of this research is on the the current Dutch development task within brownfield area: a contemporary phenomenon within real-life context (Yin, 2003).

A case study is an “(...) *empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.*” (Yin, 2003, p. 13). The contemporary phenomenon that is being investigated within this thesis is the catalysing effect of iconic projects on brownfields, where the real-life context in which this phenomenon takes place are brownfield areas in the four major cities of the Netherlands. The boundaries between the phenomenon and its context will thus be investigated through the use of case studies. These case studies entail retrospective case studies on brownfields as well as case studies of current and future developments of brownfields.

The case studies are conducted in order to give answer to subquestion 2, 3 and 4. The goal of conducting the case studies thus is threefold. The first one is to identify the role of iconic projects and their corresponding spillover effects in the history of particular brownfield areas. The second one is to determine how much developer's motives are influenced by iconic projects. The third one is to define how the conditions of iconic projects that incentive (re)developments could be implemented in contemporary and future brownfield redevelopments. This identification will be the basis for finding an answer for the main research question. Chapter four contains the analysis of the individual cases whereas chapter five contains the cross-case analysis, used to give answer to the subquestions.





### ***Retrospective case studies***

The aim is to examine which conditions and spillovers of iconic projects had impact on the motives of the real estate developers that developed projects in the brownfield areas, by looking backwards. Brownfield areas including at least one iconic project that has already been successfully redeveloped will thus be investigated. Furthermore will be examined if the objectives of the iconic projects were reached and if the successes of the brownfields, amongst others as a result of the iconic project, were expected. These case studies function as example studies. As sources of error due to confounding bias are most common in retrospective case studies, a prospective case study will be conducted as well (StatsDirect Ltd, n.d.).

### ***Prospective case studies***

The aim is to examine the expected spillover effects of the case study's iconic project on the corresponding brownfield area, and which conditions of the iconic project are behind those expectations. Moreover, the (expected) impact of the iconic project on the motives of the real estate developers will be investigated. This will both be done by investigating a brownfield area including an iconic building that has not been successful redeveloped yet. As no successes have yet been achieved, this prospective case study may declare possible confounding or biases of the retrospective case studies. Fundamentally, the case study will be used to draw an advice for future and contemporary brownfield redevelopments.

## **Case study techniques**

The case studies will consist of an analysis of the brownfield area, an analysis of its projects and more specifically their origin, accompanied by semi-structured interviews with representatives for the project developers.

### **→ *Analysis of the brownfield area***

The aim is to collect data about the history (the former use and later the vision) and the final development results of the case study's brownfield area. This will be done by doing a document study, where market data, historical data and site visits are used. Findings will be used for reciprocal comparisons and as input for the semi-structured interviews. Therefore, the retro perspective case studies on brownfields are done before the case studies on current/future brownfield developments.

### **→ *Analysis of the project***

The aim is to investigate the motives behind the development of properties that have been (retrospective case studies) or will be (prospective case study) developed. This will be done by a document study too, where again market data, historical data and if possible site visits are analysed. A requirement for the retrospective case in this respect is that the project must have been developed after the iconic building was developed.

### **→ *Semi-structured interviews (elaborated on in §3.2.1)***

The aim is to identify the motives of the developers to develop in the brownfield area, in order to see whether and to what extent this is due to the presence of iconic projects. In the retrospective case, they will be asked for their expectations regarding the success of their developments and the brownfield, in order to find out to what extent the expectations of the developing parties and the results are aligned. The essence here is "*to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result*" (Schramm, 1971, emphasis added). The document study has been used for this as well as an interview protocol to conduct them. Since these parts of the case studies consist of the collection and analysis of personal data, the importance of privacy and data protection has been highly valued. This has been done according to the guidelines that are provided by the Human Research Ethics Committee of the Delft University of Technology, in line with the GDPR<sup>1</sup>.

## **3.1.3 Case Study Selection**

A selection process is created in order to make an informed and careful decision on the cases to study. When choosing cases for this research, it is important to take into account that the cases are context-sensitive, both physical, political, socio-cultural and economical. The less differences in context between the retrospective and the prospective cases, the more and easier the findings can be compared. Therefore, selection criteria for the case studies are defined. These are divided into two categories: 'must-haves' and 'nice-to-haves'. The selected case studies must meet the requirements set in the 'must-have' selection criteria and preferably meet the requirement set in the 'nice-to-have' selection criterion.

<sup>1</sup> GDPR: The General Data Protection Regulation of the EU that is enforced since 25 May 2018 will require all data controllers and processors that handle the personal information of EU residents to "implement appropriate technical and organisational measures [...] to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems and services" (Art. 32:1. GDPR (EU) 2016/679 in IT Governance Privacy Team, 2017).



### **Must-have selection criteria**

#### **→ *Must (have) be(en) a brownfield area***

The definition used in this thesis for brownfield areas is reprinted from Alker, Joy, Roberts & Smith and is as follows: “*any land or premises which has been previously used or developed and is not currently fully in use, although it may be partially occupied or utilised. It may also be vacant, derelict or contaminated*” (2010, p. 49). The redevelopment of such areas supports the motive of this research, which is to speed up regeneration of under-utilised areas within existing cities.

#### **→ *Must be located in one of the four major cities of the Netherlands***

This research focusses on brownfield areas in the Netherlands only, to prevent contextual differences in policy, economy, politics and socially that may influence developer's motives. To be more specific, the urbanisation trend will be most evident in the four largest cities of the Netherlands until 2030 (CBS & PBL, 2016), being Amsterdam, Rotterdam, Utrecht and The Hague. This means that the need to regenerate large transformation areas is most urgent in these cities. Also, many potential cases found were located in these four cities.

#### **→ *Retrospective case must contain at least one iconic project***

For this thesis, a new definition of iconic projects has been created, which reads: “*A high-profile and prestigious property development that provides identity to a city, functions as a catalyst in the immediate existing urban environment and is the subject of considerable debate to which the general public actively contributes.*” As described in the first chapter, this research focuses on iconic projects that have the ability to catalyse developments in the surrounding area. Therefore, it is important that the retrospective case contains at least one iconic project, to be able to compare theory with practice.

#### **→ *Retrospective case must be one of best practices***

In order to be able to identify the conditions of iconic projects that could incentivise project developers to subsequently (re)develop in the brownfield area concerned, ‘one of best practice’ cases must be selected for the retrospective case study. A better understanding about the catalysing effects of iconic projects will be gained by initially reflecting on an already successfully redeveloped brownfield areas. As sources of error due to confounding bias are common in retrospective case studies, the findings will consequently be compared with the current and prospective case study findings (StatsDirect Ltd, n.d.).

#### **→ *Prospective case must contain at least one potential iconic project in development***

As this research is about the catalysing impact of iconic projects, at least one iconic project should be located in the brownfield areas. However, since the redevelopment process of the prospective case will be on the verge of beginning, the appointed iconic projects have most likely not been realised yet. Therefore, the project does not have to be transitioned from development to operation phase yet. As the project therefore cannot be assessed as being successful yet, the prospective case study may declare possible confounding or biases of the retrospective case study. However, the possibility that at least of the projects in development could potentially be considered iconic, has to be within sight.

### **Nice-to-have selection criterium**

#### **→ *Brownfields are preferably located in the same city***

As mentioned in the second must-have criterion, the case studies must be located in the Netherlands, more specifically in Amsterdam, Rotterdam, Utrecht and/or The Hague, to prevent too many contextual differences from influencing the validity of this research. To ensure even greater validity, the brownfield areas chosen are preferably located in the same city. The political, geographical and social context of different areas in the same city will most likely correspond and therefore not significantly influence the motives of developer's.

### **Selection**

Considering the aforementioned selection criteria, three case studies were selected being the Wilhelminapier as retrospective, Katendrecht as current and Merwe-Vierhavens (M4H) as prospective case. In the retrospective case, the focus will be on the Wilhelminapier solely, the other seven subareas of the Kop van Zuid such as the Entrepot area will not be taken into account. In the M4H case, the focus will be on the five current focus areas, retrieved from the vision documents by Stadshavens Rotterdam and Gebiedsteam M4H (further elaboration in §4.4). Table 9 illustrates an overview of the selected cases and their corresponding fit according to all criteria.

The decisions to focus on particular areas in the districts of Wilhelminapier and Merwe-Vierhavens are made in order to keep the conduction of three case studies on large-scaled brownfield areas feasible. And as a matter of fact, the Wilhelminapier is the part of the Kop van Zuid district that matches the brownfield definition imposed the most. Regarding the area plan of M4H that is crea-



ted until 2040 (Stadshavens Rotterdam, 2009), if it will be as thriving as planned, the current focus areas are now most relevant to take into account. Moreover, different scenarios have been created from 2020 thus the future of the area after 2020, remains uncertain at this moment in time. Also, the five focus area meet the submitted selection criteria.

Table 8.

Selected cases.

Wilhelminapier		
Case study type	Retrospective case	
City	Rotterdam	
Brownfield	Yes, a former port area	
Redevelopment phase	Initiatives started early 90's and except for a few plots, the peninsula is currently completely redeveloped	
Iconic status	Several possible icons: I. Hotel New York II. Erasmusbrug III. De Rotterdam	
	I. Operational phase	II. Operational phase
	II. Operational phase	III. Operational phase
	III. Operational phase	
Katendrecht		
Case study type	Current case	
City	Rotterdam	
Brownfield	Yes, a former port area	
Redevelopment phase	Being redeveloped since 2000 and currently still in process	
Iconic status	Several possible icons: I. Fenix loods I and II II. ss Rotterdam III. Landverhuizersmuseum	
	I. Operational phase	II. Operational phase
	II. Operational phase	III. Development phase
	III. Development phase	
Merwe-Vierhavens		
Case study type	Prospective case	
City	Rotterdam	
Brownfield	Yes, a (former) port area	
Redevelopment phase	The (re)developments process is still on the verge of beginning. Has been on the municipal agenda since 2004, however the initiative phase practically started in 2015 with the advent of the 'Merwe-Vierhavens' area team.	
Iconic status	Several possible icons: I. Katoenveem II. Vertrekhal Oranjelijn III. Dutch Windwheel	
	I. Initiative phase	II. Operational phase
	II. Operational phase	III. Development phase
	III. Development phase	

### 3.1.4 Synthesis

By conducting a cross-case analysis, the final step towards drawing conclusions has been made. A synthesis of the theoretical framework together with the results of the case studies and cross-case analysis form the answers to the research questions. In order to validate these conclusions of this research, evaluations with externals and internals have been organised. First, by means of a discussion on the preliminary results by an evaluation panel with externals. Second, by retrieving feedback on the main conclusion of the research by internals: the interviewees.

#### Evaluation of preliminary conclusions by externals

An evaluation panel has been organised in cooperation with Brink Management / Advies where the preliminary results have been evaluated by means of a discussion. Such panels are usually deployed to acquire specialised input and opinions for an evaluation (Department of Sustainability and Environment, 2005, p. 36). Their main objective is to synthesise inputs in order to provide a vision or future recommendations for possibilities and needs in relation to the discussed issue (Slo-cum, 2005). Such recommendations could then be shared with decision making bodies or used to come up with well-founded advices (Department of Sustainability and Environment, 2005, p. 36). In this research, the main objective of the evaluation panel is to assess the lessons learned from the case studies in order to validate the results and to get input for recommendations of the research. This has been deployed by means of a discussion, which has been organised by presenting certain statements from the results of the case studies. This evaluation panel consisted of ten urban development professionals from Brink Management / Advies who are extensively involved by the development of and investments in inner-city development projects, of which many are/have been located in Rotterdam.



**Note:** The in-depth case studies will remain leading. The evaluation panel is deliberately made subordinate in order to ensure both the scientific and company's interests.

### Evaluation of conclusions by internals

In order to evaluate and subsequently validate the final conclusion, it briefly has been fed back to the interviewees: the main source of the results. The approach and the respondents that contributed to evaluating the conclusions can be found in Appendix X.

.....

## 3.2 Data collection approach

As previously discussed, this research focusses on the impact the (re)development incentives through iconic projects in brownfield redevelopments. As has been discussed in §2.2 of the literature review as well, many spillover effects on the surrounding environment could be generated by such iconic projects. Even though all spillovers found in literature will be taken into consideration, the **catalysing spillover** of iconic projects on the surrounding developments will be the main pillar of the case studies. The retrieved data of the case studies give insights into the redevelopment vision and process of the brownfield considered, into its redevelopment and iconic status as well as insights into the developer's perception. Each case study elaborates on these topics sequentially (Table 9).

Table 9.

Case study topics.

Case study topics	
1	Case introduction
2	The redevelopment (vision, process and status)
3	Impression
4	Iconic status
5	Findings from practice

The key concepts of this research will be explored by creating a framework of theory first by means of a literature review. In addition, the effects of iconic projects in brownfields on (re)developments in the direct surrounding area will be studied, through analysing the brownfields and the corresponding projects that are located on these case studies. This relies on multiple sources of data. The sources that will be used to collect data depend on the information disclosure per interviewee. Data has been obtained using a number of different methods and sources for different reasons. These are described in more detail in Table 10.

Table 10.

Data retrieving methods and their corresponding sources, aims and case study topics.

Method		Unstructured site observations
Aim		Unstructured site observations are used for direct access to the phenomena, to get a physical understanding of the site and to perceive its redevelopment status.
Source		The chosen brownfield sites
Topic		2. The Redevelopment 3. Impression
Method		Document study on brownfields
Aim		Document studies on the brownfield sites are applied to discover and document the redevelopment vision of the area and its current iconic status
Source		Vision documents, reports and zoning plans on the brownfield sites by the municipality/municipalities involved
Topic		1. Case introduction 2. The redevelopment
Method		Document study on (iconic) project developments
Aim		Document studies on the project developments are applied to identify (possible) iconic projects and the participating stakeholders as well as to discover and document the redevelopment process and current (iconic) status of the brownfield sites
Source		Websites, vision documents and reports of the stakeholders involved in project developments on the brownfields considered, as well as Dutch news websites
Topic		1. Case introduction 2. The redevelopment 3. Impression



Method	Iconic Project Assessment
Aim	In order to be appointed the iconic projects on the brownfields, the four imposed conditions of iconic projects will be assessed through some set requirements.
Source	Websites, vision documents and reports of the stakeholders involved in project developments on the brownfields considered, as well as Dutch news websites
Topic	4. Iconic Status
Method	Semi-structured interviews with project developers
Aim	To identify the practical role of iconic projects on brownfield sites and their influence on the intentions of project developers
Source	Project developers involved in the brownfield site redevelopments
Topic	5. Findings from Practice

### 3.2.1 Iconic project assessment

All developments on the case study brownfields have been analysed in order to create an overview of the property developments that took place and in order to create an overview of the urban area development process by means of a timeline. Consequently, these projects have been explored in more detail using various sources of literature, municipal documents, project documents and news websites. Because of either function, architectural and/or cultural-historical value, identity, catalysing effects and/or because of being publically discussed, some projects have been selected to potentially be appointed an iconic project. In order to identify the iconic projects of this research, these potentials have been assessed using the method of Table 11. The four imposed conditions of iconic projects will be assessed through set requirements. In order to be appointed an iconic project, at least one requirement per condition must be met.

Table 11.

Assessment method used to identify iconic projects.

Condition I: Considered high-profile and prestigious by experts in the field		
Requirements	I.I	Project contains notable and noticeable architecture so that it will be seen and discussed (e.g. a special or recognisable shape), and/or;
	I.II	Project is designed by a starchitect (§2.2), and/or;
	I.III	Project has been discussed in/on professional architecture magazines/websites
Condition II: Considered high-profile and prestigious by the general public		
Requirements	II.I	Project has a certain nickname and/or;
	II.II	Project has been discussed on news websites and/or;
	II.III	Project is used for city branding purposes
Condition III: Providing a sense of uniqueness and identity to the environment		
Requirements	III.I	Project provides demonstrable identity to the case study area and/or;
	III.II	Project provides demonstrable identity to the city and/or;
	III.III	Project is a demonstrable unique object in the case study area and/or;
	III.IV	Project has a symbolic value for the city (e.g. by having historical meaning or cultural value)
Condition IV: Catalysing effect for surrounding developments		
Requirements	IV.I	Project is a meaning creating catalyst
	IV.II	Project is a public attracting catalyst
	IV.III	Project is a trust gaining catalyst
	IV.IV	Project is a history calling catalyst

### 3.2.2 Interview set-up

As mentioned in Table 10, conducting interviews is one of the methods used for the data acquisition. The sample frame of the interviewees are project developers and managers involved in the brownfield redevelopments. The interviews have a semi-structured character which means that they are “(..) *conversations in which you know what you want to find out about*” (Miles & Gilbert, 2005, p. 65).



## Purpose

This research uses interviews to gather both perceptions and attitudes as well as expert knowledge from developers towards iconic projects developments on the case study locations. Their cognitions, *what they think*, emotions, *how they feel*, and actions, *what they do* in response, with regards to iconic projects in brownfield redevelopments are relevant for this research and could all be obtained by means of interviews (Miles & Gilbert, 2005, p. 65).

## Technique

Most interviews have been conducted face-to-face and thereby are synchronous communicated in time and place. This has the opportunity to provide more information by social cues, i.e. voice, intonation and body language and could provide more spontaneous answers, compared to for instance interviews conducted by telephone. Next to their verbal answer, this could be an added value. However, face-to-face interviews could also lead to (unconsciously) using certain words or behaviour to guide the interviewee in a special direction. By being aware of this possible side-effect and the use of an interview protocol, this risk has been diminished (Opdenakker, 2006).

Using the semi-structured interview technique is considered best for this research, as the sample size is relatively small and this technique is considered flexible for small-scaled research. Semi-structured interviews will thus provide for the most useful data. This technique also allows for thematic analysis of the qualitative data retrieved (Pathak & Intratat, 2012). *"Semi-structured interviews (...) have a set of questions to ask and a good idea of what topics will be covered – but the conversation is free to vary, and is likely to change substantially between participants."* (Miles & Gilbert, 2005, p. 65). The interview questions are thus pre-defined to prevent topics from being skipped, however, project developers are certainly encouraged to explain their views in detail.

## Protocol

An informed consent consisting of a Code of Conduct on confidentiality and anonymity (Appendix IV) has been provided to the interviewee before the start of the interview. Permission will also be asked for recording the interview as they preferably all are recorded. The reason of recording will besides be pointed out thoroughly. It will be used to ensure a smooth conversation without too many interruptions to write down their answers only and not, for instance, for public use. Subsequently all interviews will start by explaining the participant about the purpose of the interview (Miles & Gilbert, 2005). The interviewees will be prepared in advance as well, by sharing a short elaboration on the research background and the corresponding (preliminary) case study summary per e-mail.

All case studies make use of the interview protocol, which is set up in three parts (Table 11). The sequence of the interview questions is based on chronological reasoning. This provides for a natural flow of questions *"so that they arise naturally as the interview progresses."* (Miles & Gilbert, 2005, p. 68). The first part is created to gain more insights into their background and their role during the project or area (re)developments. The second part is created to implicitly explore to what extent certain aspects and particularly iconic projects have influenced their decision to develop in the brownfield area concerned. These questions are based on the sequence mentioned in the *elements of marketing mix* that is used to achieve a broad view of the market in the project development handbook by Nozeman & Fokkema (2008, p. 90-99). The third part is created to do the same, however by explicitly asking about the influence of the predefined iconic projects.

Table 12.

Interview protocol set-up.

Interview protocol set-up	
Interview opening	
1	Profile and position
2	Project set-up
3	Influence of iconic projects
Interview closing	

Moreover, a series of prompts is developed in order to provide examples of what might be expected as an answer to the question. These prompts, however, are neutral formulations and will only be used if the participants needs help, e.g. when they do not understand the question. Before the interview ends, further remarks that might be relevant for the research will be asked as that might lead to an emergent of new relevant information (Opdenakker, 2006).



## Analysis

*"(...) while analysing the responses, it would be useful to focus on the themes and issues that recur in the responses."* (Pathak & Intratat, 2012, p. 9). The obtained data will therefore be analysed by transcribing and subsequent sorting the interviews at the topics they touch upon in a database. This provides for the opportunity to discover patterns within the different topics and to compare the different cases with each other (Clifford, French, & Valentine, 2010). These patterns, or recurring themes, could also give useful clues to the interviewees' concerns on issues of significance (Pathak & Intratat, 2012, p. 9). The summaries of the interview analysis can be found in the Appendix VI and VII.

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## 3.3 ETHICAL CONSIDERATIONS

Due to the nature of a qualitative study, communication between the researcher and participants could be an ethical challenge. Statistical analysis are not covered in this research and thus the observed and documented findings should be evaluated and interpreted by the researcher (Sanjari, Bahramnezhad, Fomani, Shoghi & Cheraghi, 2014). Therefore, a few ethical guidelines have been formulated, mainly with regard to the interviewees' privacy and an objective stance during interpretation of the findings.

The privacy of the interviewees has been guaranteed through an informed consent, consisting of a Code of Conduct on confidentiality and anonymity. The extensive privacy measures can be found in the informed consent itself (Appendix IV). The signed forms can be provided on request by the researcher. Amongst others, it consists of the following main arrangements:

- The interviews will be audio-recorded to ensure a smooth conversation without too many interruptions due to writing down the answers obtained. The raw data, so the audio-recordings, will be stored offline and will be accessible for the researcher only and for the study team by request.
  - The raw data will be deleted once graduated and the transcripts will be deleted one year after graduation.
  - The answers will remain private and will be processed anonymously: personal information such as name and place of living will not be used. Instead, their function and the organisation they work(ed) for will be mentioned in order to indicate what kind of professionals have been interviewed. Moreover, has been indicated that the interview results are used for research purposes only.
  - All participants are free to withdraw their consent at any time, without giving a reason. All obtained data will then be destroyed.
- .....
- .













## SECTION IV

### empirical research

*Analysis on the conditions of iconic projects that contributed to inciting (re) developments by studying the redevelopments of the Wilhelminapier, Katendrecht and Merwe-Vierhavens.*

#### **4. Case studies**

##### **4.1 Context analysis**

4.1.1 Rotterdam context analysis

4.1.2 Case study locations

##### **4.2 Case I: Wilhelminapier**

##### **4.3 Case II: Katendrecht**

##### **4.4 Case III: Merwe-Vierhavens**

4.2/3/4.1 Case description

4.2/3/4.2 The redevelopment

4.2/3/4.3 Impression

4.2/3/4.4 Iconic status

4.2/3/4.5 Findings from practice



# 04

## Case studies

To gain more insights from Dutch practice in the catalysing effect of iconic projects on brownfield area redevelopments, three case studies have been conducted. This chapter goes into those case studies. It starts with a preliminar context analysis in which more information regarding the city Rotterdam and the specific case study locations are provided in §4.1. Thereafter, the three selected case studies are conducted individually of which their findings can be found in §4.2 - §4.4. Each case study starts with a short case description, after which the redevelopment vision, process and status will be discussed. For each case study, an impression of the redevelopment area and their iconic projects and an assessment on their iconic status are provided in Appendices II and III. These function as references for the discussion of the findings from practice. The case studies end with a spectrum that displays the most to least important conditions of iconic projects that may/have contribute(d) to incentivising developers.

### 4.1 Context analysis

Three case study locations have been selected in §3.1.3, of which all of them are located in the second largest city of the Netherlands, Rotterdam. In order to properly conduct the case studies of these brownfield redevelopments, a context analysis of the city in general will be provide first. §4.1.1 goes into the history and subsequent the current image of Rotterdam and §4.1.2 provides an overview of the exact case study locations within the city.

#### 4.1.1 Rotterdam context analysis

##### History

Rotterdam has been badly hit by the bomb attacks during World War II. The most drastic interventions took place in May, more specifically during the Rotterdam Blitz, the aerial bombardment of Rotterdam during the German invasion on May 14, 1940. However, on May 10, 1940 many bombs had been fallen already and hundreds of German paratroopers invaded Waalhaven airport, after which they fought from Rotterdam-Zuid towards the Noordereiland. Four days later, the devastating bombardments on Kralingen and the city centre fell, resulting in a huge fire (Figure 8) (Oudenaarden & Vroegindewei, 2015). The aftermath consisted of nearly 900 killed civilians, 85.000 civilians that suddenly were made homeless and a destruction of more than 30.000 homes and properties (Stadsarchief Rotterdam, n.d.a). All in all, a devastation on a scale that has never been experien-

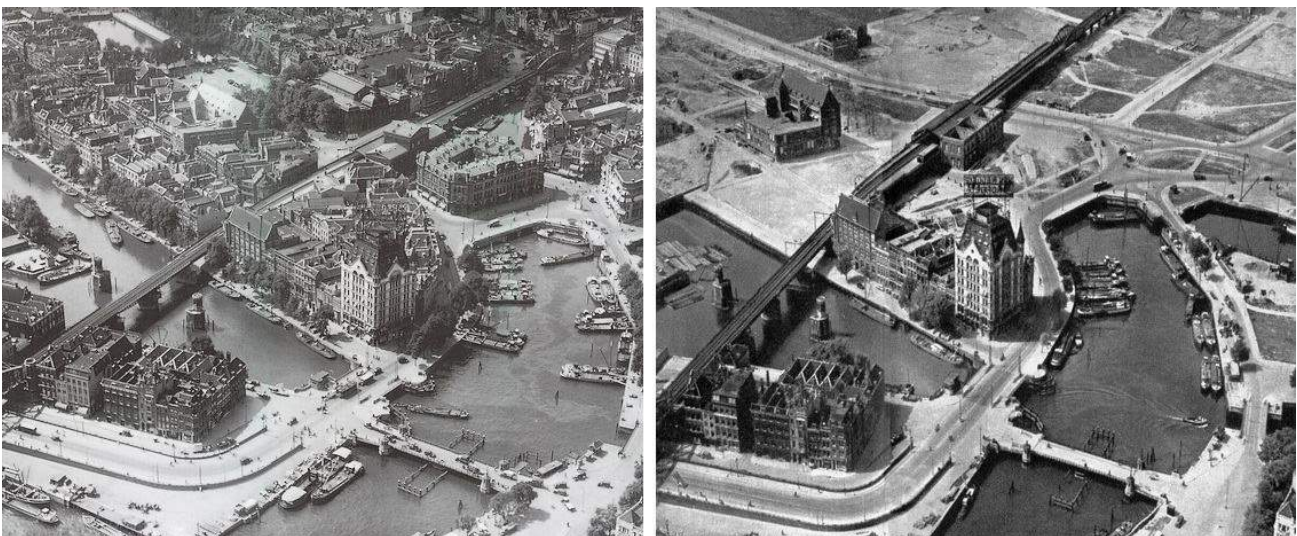


Figure 8.

Wijnhaven in Rotterdam before and after bombing. Reprinted from Aad Wagenaar over 'Rotterdam, mei 1940', In Historiek, Retrieved on February 02, 2019 from: <https://historiek.net/aad-wagenaar-over-rotterdam-mei-1940/19430/>



ced in the Netherlands before. On March 15 1940, only one day after the Rotterdam Blitz, it was immediately decided which buildings would be saved and which would not, so that the rubble removal could start right away. Two years later, however, another bombardment took place, also known as the 'forgotten bombardment' on 31 March 1943. The American Air Force by mistake bombed large parts of Rotterdam West - the actual attack was meant to hit the port area. The entire old city centre and cultural life of the city was destroyed (Oudenaarden & Vroegindeweij, 2015).

Four days after the bombardments on May 14, 1940, the mayor and aldermen commissioned ir. W.G. Witteveen for the development of a reconstruction plan. Although he started developing plans with great motivation, the plan of his successor ir. I.C. van Traa formed the basis for the new city centre (Stadsarchief Rotterdam, n.d.b). The WO II consequences ultimately resulted in Rotterdam like it is looking right now. The current city's lay-out is commonly called modern and functional.

### Current image

Both the New York Times, Lonely Planet and the Rough Guide have identified Rotterdam as one of the world's 'must-see' destinations (Deloitte, 2015, p. 21). According to Tom Hall, editor in chief of Lonely Planet Best in Travel 2016, this is amongst others because of the cities' futuristic architecture, inspiring city initiatives like the Luchtsingel and the growing range of arts, culture, hospitality and entertainment (Rijdsdijk, 2015, October 27). The Wall Street Journal proclaims Rotterdam to be the coolest city of the Netherlands. In addition, they suggest a number places to visit of which a couple is located in the chosen case study sites, being the ss Rotterdam, the Nhow hotel in De Rotterdam and the Fenix Food Factory (Barone, 2016, October 11).

One could thus say that the city is internationally recognised. This recognition is being acknowledged nationally as well. Dutch author F. Borderwijk for instance characterised Rotterdam as an international city: an allocation received from the sea, since "*the sea crosses the borders, the sea is the world's true cosmopolitan*" (Oudenaarden & Vroegindeweij, 2015, p. 166). Rotterdam, however, is also highly acknowledged locally, for instance by Clare Lennart who says that "*Rotterdam is the city of the people, like The Hague is the city of the aristocracy, Amsterdam of the wealthy merchants and Utrecht of the sophisticated bourgeoisie*" (Oudenaarden & Vroegindeweij, 2015, p. 166).

### 4.1.2 Case study locations

The city is now very known for its harbour as well, as the Port of Rotterdam is the largest port of Europe. However, many traditional port areas in European cities have lost their function in the 70's and the 80's. On the one hand, due to emergence of intercontinental air traffic, which resulted in a rapid decrease of passenger transportations via the ocean. On the other hand, due to introduction of containers in cargo transportation, that has led to harbours being relocated from the city centre to sites downstream the Maas river (Oudenaarden & Vroegindeweij, 2015). In short, this as well as the changing perception towards environmental requirements resulted in more and more port areas changing from first very dynamic areas to spatial and functional underused or even void ones.

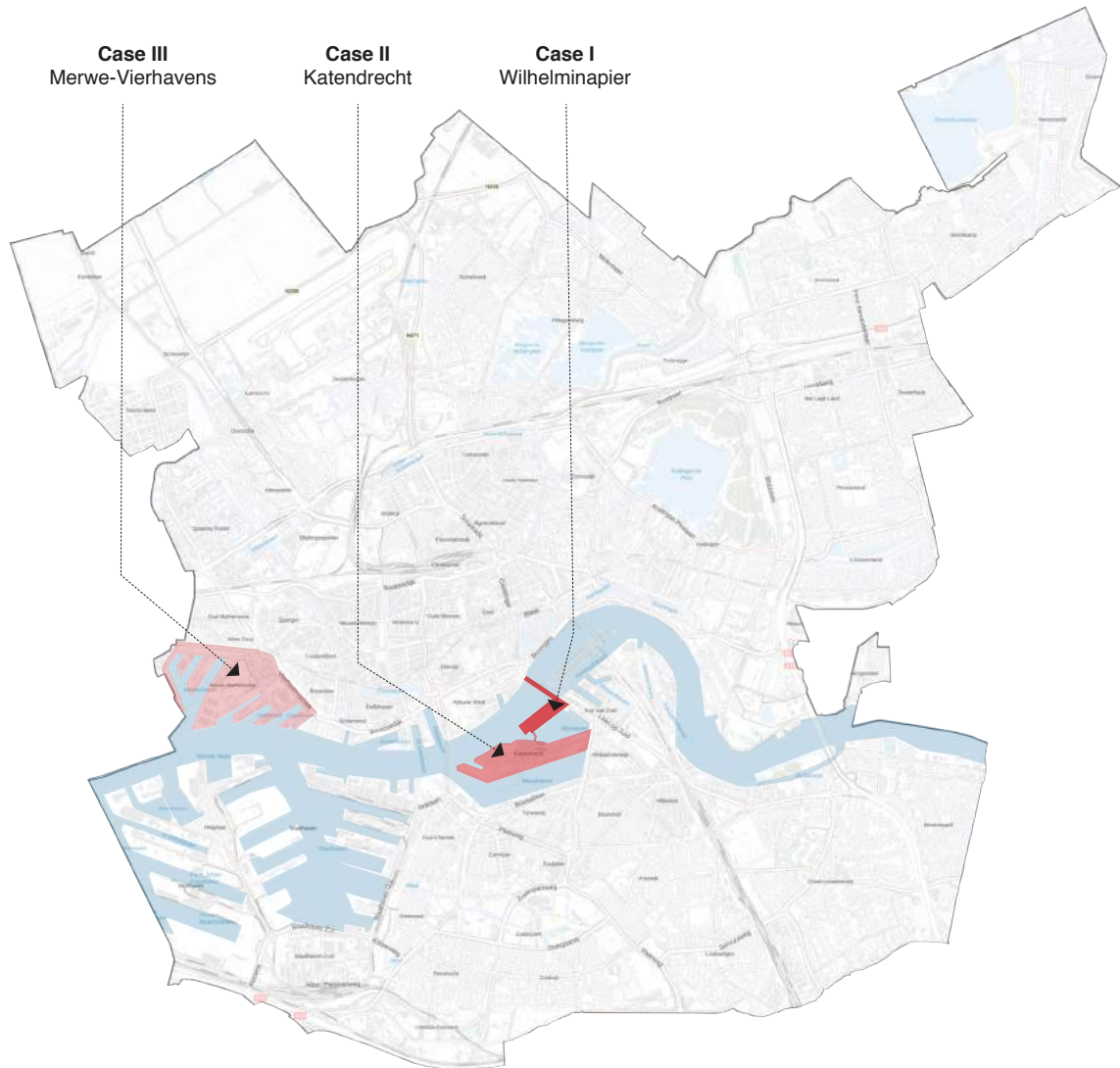
Vast areas close to the inner-city becoming vacant, offers promising opportunities for the renewal of the city. If only looking at the dimensions of such former port and industrial areas, which may be several hundred hectares, it offers enormous possibilities. Moreover, due to the economic development of the service sector and more and more urban culture since the urbanization trend, a great new demand for urban areas has emerged. Therefore, the redevelopment of these former port and industry areas has great potential. Stadshavens Rotterdam, a project office from the Municipality of Rotterdam and the Port of Rotterdam Authority is responsible for the transformation of these former port areas in Rotterdam for the coming 20 to 40 years (Deloitte, 2015, p. 8).

Figure 9 shows where the three case study brownfields are located within the city of Rotterdam. More information on the specific case locations can be found in the following three paragraphs.

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Figure 9.  
The three case study locations within the city of Rotterdam.



## 4.2 Wilhelminapier

### 4.2.1 Case description

Area:	11.4 ha. (excl. Erasmusbrug) <sup>1</sup>
Inhabitants:	2.390 on 01.01.2017 (Gemeente Rotterdam, 2018a)
City:	Rotterdam
District:	Feijenoord
Neighbourhood:	Kop van Zuid (Figure 9)

The neighbourhood Kop van Zuid is located on the opposite of the city centre of Rotterdam, on the south bank of the Nieuwe Maas (Figure 9). It is connected with the city centre through the Erasmusbrug, the subway and the Willemsbrug via the Noordereiland and has become an important connector between the North and South of Rotterdam. Due to the connections of the Erasmusbrug and Laan op Zuid, but also new developments on the Wilhelminapier, some see the Kop van Zuid as an extension of the city centre (Gemeente Rotterdam, 2018a). The Kop van Zuid consists of the well-known Wilhelminapier and seven other subareas (Figure 10). Due to the choice of conducting three case studies and the scope of this research, this case study takes into account the Wilhelminapier only. Moreover, this part of the neighbourhood matches the brownfield definition imposed.

### History

Due to financial troubles of the Holland-Amerika Lijn (HAL), the Wilhelminapier experienced some difficult years in the 1920s and 1930s. The second World War thereafter did not make it any better in the 1940s. HAL ships got fired and due to heavy bombing, many sheds on the Wilhelminapier got destroyed. The headquarters of the HAL was one of the few buildings that remained. Due to the

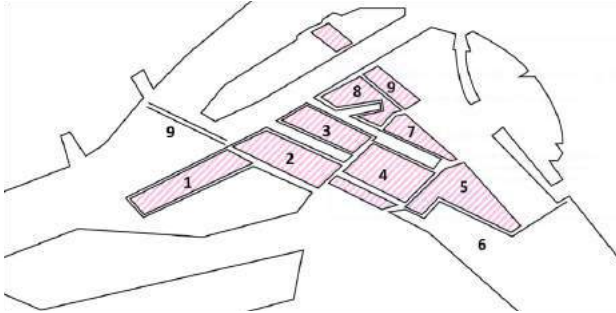
<sup>1</sup> Measured via Google Maps. Google, 6 March 2019. Retrieved from: <https://www.google.nl/maps>



war, shipping and port activities almost stalled. Even the name of the Wilhelminapier got robbed, as the occupier renamed the quay into the Stieltjeskade until the end of the war (1945). It got worse, as the occupier destroyed the installations and quays of almost all ports of Rotterdam. This had turned them, and thus the Wilhelminakade too, into ruins (Oudenaarden & Vroegindeweij, 2015; Zevenbergen, 2016).

Figure 10.

The subareas of the Kop van Zuid:  
 1) Wilhelminapier,  
 2) Zuidkade,  
 3) Landtong,  
 4) Stadstuinen,  
 5) ODS gebied,  
 6) Parkstad,  
 7) Paperclip and  
 8) Spoortunnel (Beyond Plan B, 2013b).



In the 1950s and 1960s, the Wilhelminapier was often quite busy due to Dutch emigrants departing to countries such as America, Canada and Australia. During the 1960s however, commercial inter-continental air traffic has emerged. This resulted in a rapid decrease of passenger transportations via the ocean. The HAL management therefore decided to quit passenger transportations to New York in 1971 and started to focus more on cruise shipping. In 1982, the HAL moved to America and as a consequence their headquarters became vacant (Zevenbergen 2016).

In 1889, the Municipality of Rotterdam bought the the former HAL headquarters as well as the adjacent plots, because of their plans for the Kop van Zuid. Riek Bakker, director of the Urban Development department for the Municipality at that time, collaborated with architect Sir Norman Forster to develop a masterplan for the Kop van Zuid in 1990. In 1991, a number of entrepreneurs from the hospitality industry in Rotterdam went to the municipality with the plan to redevelop the vacant headquarters into a hotel with café/restaurant. The municipality agreed and the entrepreneurs carried out the renovation in-house. Permission to name it Hotel Holland-Amerika Lijn was not obtained, however, and so arose Hotel New York which opened in 1993. As its accessibility was not optimal at all, the hotel management founded the Watertaxi which now has 50 berths in the city and yearly carries hundreds of thousands of passengers (Zevenbergen, 2016).

Even though Hotel New York was the start of the quay developments, the port area was still abandoned and created a huge void between the centre of Rotterdam and the southern part of the city (the Erasmusbrug was not constructed yet). At that time, the southern part was considered the weaker part of Rotterdam: *“De ontkenning van Rotterdam-Zuid zat nóg dieper in de genen van de bevolking dan het gat dat de oorlog in de stad had geslagen.”* (Gierstberg, Visschedijk & De Baan, 2007, p.21). In other words, denying the South of Rotterdam was even deeper in the genes of the population, than the havoc as a result of the war. All in all, this resulted in a downward economic spiral of the Kop van Zuid.

#### 4.2.2 The redevelopment

##### Redevelopment vision

Beyond Plan B, a European business development company, did research on how to strengthen the economic resilience, the spatial qualities and the governance of regions along the Rhine. According to them, post-industrial regeneration projects typically represent the shift from production economy to a service economy. This subsequent represent a shift in employment at post-industrial areas. *“Blue collar jobs, which move to less developed countries where work is cheaper or which are substituted by mechanisation are supposed to be compensated by white collar jobs. These highly skilled workers not only demand a well-paid job, but they want to live in a very lively, nice, clean and safe city too.”* (Beyond Plan B, 2013b, p. 38). They therefore mention that post-industrial regeneration projects always rely on two main pillars: 1) the development of new office buildings and 2) the enhancement the city with a new cultural program, nice urban spaces and landscapes. This complies with the vision that was created for the Kop van Zuid too. The objective of the municipality was to transform the Kop van Zuid into an attractive and vibrant urban area by satisfying the demand of a service orientated location and through stimulating the economy and reducing unemployment (Beyond Plan B, 2013a).



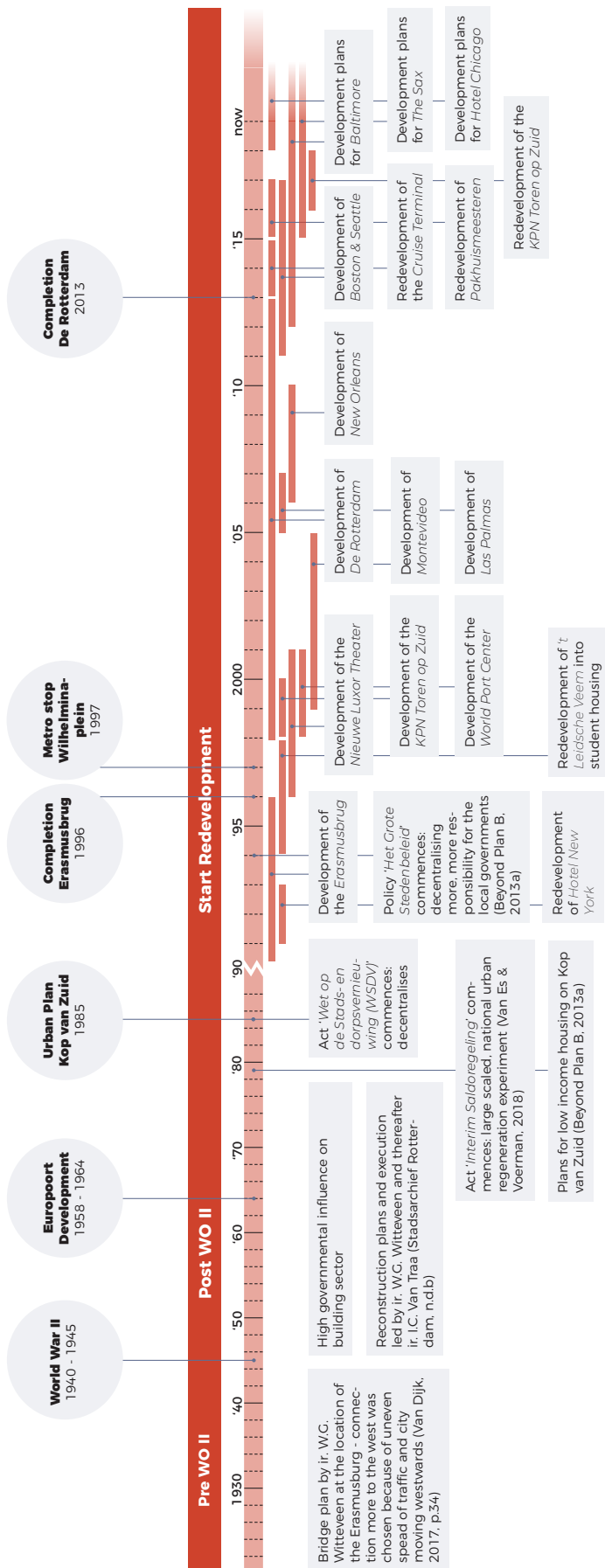


Figure 11. Timeline of the development process of the Wilhelminapier, based on Appendix I.

The Municipality of Rotterdam chose the peninsula of the Kop van Zuid, the Wilhelminapier, as one of their focus areas for many reasons (Oudenaarden & Vroegindewij, 2015, p. 499). Since the economies of scale and the process of concentration from the 1960's, there has been a movement towards the West of Rotterdam. Also, the space between the districts Feijenoord and the city centre turned into an abandoned area. Moreover, the former city council found the old harbour areas suitable for the creation of new residential areas, in order to reduce the enormous shortage of financial accessible housing at that time. Also, Katendrecht had to contend with prostitution inconvenience and so the impoverished and abandoned area appeared to be suitable to redeem Katendrecht from this inconvenience by developing a so-called Eroscentrum (what never happened). To address all these issues, plans for the Kop van Zuid were made.

### Redevelopment process

In 1978, a structural vision for the Kop van Zuid has been created. This included, amongst others, the plan of building 4.000 houses. Consequently, in 1980 a couple of foreign architects was asked to make an urban design for the 'Kop van Zuid', the name was then introduced for the first time (Oudenaarden & Vroegindewij, 2015, p. 499). Anno 1984, the Wilhelminapier was still not quite in a good condition according to Riek Bakker: *"Een gebied in teloorgang. Kaal-slag met grote hekken eromheen. Als je het terrein wilde betreden, moest je met een heel goed verhaal komen, had je een pasje nodig. De gebouwen verkeerden in de marge van economisch gebruik."* (Oudenaarden & Vroegindewij, 2015, p. 499). In other words, a void fenced area trapped in a downward spiral, where one needed good reasons and a card to even enter. According to Bakker, the redevelopment of that particular area was a mental issue as actually different type of people were living in the South of Rotterdam compared to the rest of the city: people from the province, who had gone living behind the harbours for work. That led to a different kind of economy that did not belong to the city demographically, economically and socially at all (Appendix VIII).

In 1985, Riek Bakker was appointed director of the Urban Development department at the Municipality of Rotterdam. She realised that it would be a great pity to remain the abandoned port area as some sort of intermediate area between the surrounding neighbourhoods (Oudenaarden & Vroegindewij, 2015, p. 499). Although it was a large empty area, it had yet undiscovered potentials (R. Bakker in Gierstberg, Visschedijk & De Baan, 2007, p.21). The first potential discovered was the former HAL headquarters. As



a result, the redevelopments of the Wilhelminapier kicked off with the transformation of this project into Hotel New York. Many developments followed (Figure 11 graphically represents the development process of the Wilhelminapier).

The developments were tackled jointly by businesses and government. The public space design for instance, was a matter for and investment by the municipality. Due to their high level of ambition for the Wilhelminapier, they were devoted to create high quality public spaces and set high functional, aesthetical and sustainability requirements to all materials used. The existing bins and banks of the municipality for instance were not meeting those requirements and as a consequence, new ones were designed (Oudenaarden & Vroegindewij, 2015). The municipality funded two major infrastructural projects as well: the Erasmusbrug that connects the area with the city centre (costs: €165 million (Top010, 2013)), the Metro station Wilhelminaplein that stops at the beginning of the peninsula (costs: €23 million (Brouwers, 1997)) and the infrastructure at the peninsula itself. The tram system got extended as well, however this was funded by the Transport Authority as they were persuaded by the prospect of a higher fare zone introduction (Beyond Plan B, 2013a).

Striking in this process is that big investments in infrastructure were made **before** the land was sold. This made the area more accessible which would make attracting big multinationals to buy land and built their offices there easier. It is not quite usual to separately execute infrastructure constructions and land sale, as this requires large pre-investments by mostly governmental parties. This involved large financial risks for the municipality, as they were not yet assured of income by land sale at that time. The City Council of Rotterdam could make these pre-investments with the income gain with ground rents throughout the whole city. In order to realise the plans, to motivate public investors to develop and to foster confidence in the area, more public investments and guarantees for private investments were needed than expected and originally planned (Beyond Plan B, 2013a).

The developments of the Wilhelminapier started with the re-use of a number of historic buildings on the Wilhelminapier of which all are national monuments, although Hotel New York is probably the most known. At the same time, the Cruise terminal, the former departure hall of the HAL, and 't Leidsche Veem warehouse were re-used as well (Gemeente Rotterdam, 2009, p. 13). Construction of apartment buildings and housing blocks followed, where state-controlled housing cooperatives acted as pioneers. Only then, privately financed office buildings followed (Beyond Plan B, 2013a). A period of ten to fifteen years has been allocated for the entire development and it thus should have been finished at around 2010. As a result of the economic crisis that significantly affected the office and housing market, the developments were lasting longer than initially planned (Oudenaarden & Vroegindewij, 2015).

### Redevelopment status

Now, the Kop van Zuid and specifically the Wilhelminapier have undergone a huge transformation. Once, poor emigrants were leaving the Netherlands here to travel to the New World: the United States of America. Now, prosperous people are living here in a beautiful, modern environment. Instead of old harbour properties from the HAL, the Wilhelminapier is now full of high-rise apartment buildings. A few traditional properties however remained, such as the aforementioned former HAL headquarters which now is Hotel New York, the Cruise Terminal and some authentic warehouses. The physical fabric and the economy of the Wilhelminapier have drastically improved and it has now got a positive image, generally as an exciting place to both work, live and recreate. Moreover, the Wilhelminapier has positive spillover effects on the other southern districts of Rotterdam. Population has grown gradually during the development process and new established businesses employed citizens not only locally, but on city level. Both the Erasmusbrug and the high-rise buildings together now create a skyline, which in itself became a true icon of the city. Moreover, the Erasmusbrug became a landmark for Rotterdam (Beyond Plan B, 2013a). In fact, the redevelopment of the Wilhelminapier could be considered almost finished. Only three plots left are undeveloped (Appendix I), however those plans have already been made (Figure 11).

The redevelopment of the Wilhelminapier could be considered quite special, as businesses and government did not invest separately in the developments of the area, but jointly (Gierstberg, Vis-schedijk & De Baan, 2007). *“Co-operation between the public and private sector was based on mutual trust and common goals. The planners looked for a win-win situation that benefited both the public and private sectors.”* (Beyond Plan B, 2013a, p 53). Active stakeholders involved are illustrated in Figure 12, abstracted from Appendix I. Also, the municipality of Rotterdam had a very favourable position in the redevelopment. As the land on the Wilhelminapier was owned by the Port Authority, which again was owned by the municipality, the municipality had full control over the developments.



Figure 12.

Active stakeholders involved in the redevelopment of the Wilhelminapier, based on the property analysis as shown in Appendix I.



#### 4.2.3 Iconic status

Because of either function, architectural and/or cultural-historical value, identity, catalysing effects and/or because of being publically discussed, some projects on the Wilhelminapier have been selected to potentially be appointed an iconic project. Appendix II provide an impression of these projects. They moreover have been assessed on their iconic value, based on the requirements that have been set for the four conditions of iconic projects (Table 11 in §3.2.1). The assessment of the potential iconic projects against the requirements associated with the conditions imposed for a project to be iconic, can be found in Appendix III. A summary of the results has been visualised in Table 13. The bold texts represent the projects on the Wilhelminapier that have been appointed iconic according to the used terminology and conditions of this research.

Table 13.

Iconic projects at the Wilhelminapier as a result of the iconic assessment.

Possible Iconic Projects	Phase	Condition I High-profile according to experts	Condition II High profile according to the public	Condition III Provides identity or uniqueness to the area	Condition IV Catalysing effects on surrounding developments
<b>De Rotterdam</b>	<b>Operational</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
<b>Erasmusbrug</b>	<b>Operational</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
<b>Hotel New York</b>	<b>Operational</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
Las Palmas	Operational	x		x	x
Montevideo	Operational	x			
<b>New Orleans</b>	<b>Operational</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
Nieuwe Luxor Theater	Operational	x		x	x
Toren op Zuid (KPN)	Operational	x		x	x

#### 4.2.4 Findings from practice

The content of this paragraph derives from information obtained from interviews with project developers and managers involved in project developments at the Wilhelminapier and a public presentation by Riek Bakker. Riek Bakker, former director Urban Development of the Municipality of Rotterdam, initiated and enabled the development of the Kop van Zuid (next to many other urban area developments). The list of the interviewees for this case can be found in Table 14 and the transcript of the relevant parts of the Riek Bakker's presentation can be found in Appendix VIII. The case study findings will be used to answer the following subquestions: "What role have iconic projects played in the redevelopments of brownfield areas of the retrospective case studies?" and: "What conditions of iconic projects in the retrospective case study areas have positively influenced the intention of real estate developers to develop in the related brownfield area?" These findings will be used to draw conclusions in chapter 6.

**Note:** Reference will be made to the interviewees as follows: (Function, Organisation).

In principle, there are two brownfield situations on which project developments could take place. The one situation is a brownfield containing one or multiple projects that could be considered iconic. The other is a brownfield (yet) without the presence of iconic projects. With regard to the focus of this research, *the influence of iconic projects on brownfield redevelopments*, this research goes into the first situation (Figure 13).

In addition, project developments on brownfield sites could take place while consciously opting for an iconic status (see type 1 and 3 in Figure 13), or without the intention to retrieve an iconic status (see type 2 and 4 in Figure 13). In both types, however, the project development could obtain an iconic status. All these developments could have been partly incentivised by the present iconic



Table 14.

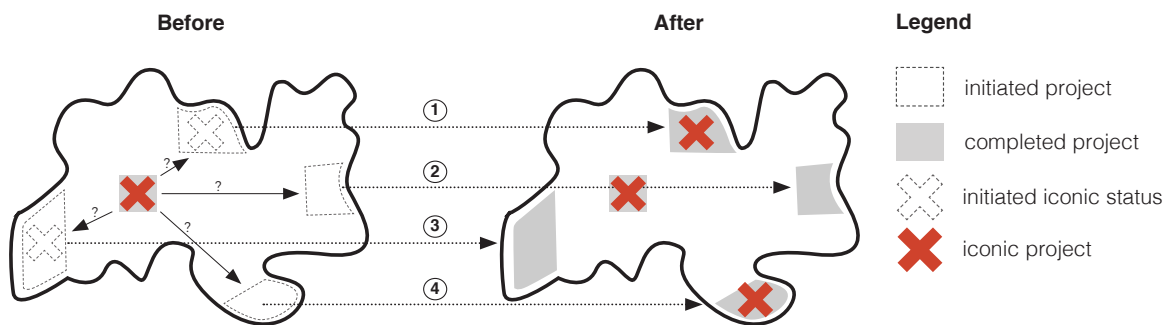
Interviewees  
Wilhelminapier.

Project Manager (Kop van Zuid & Katendrecht), Municipality of Rotterdam (MoR)		(1.1 in interview analysis)
Function	Project manager for Kop van Zuid and Katendrecht	
Organisation	Municipality of Rotterdam	
Projects	De Rotterdam; Pakhuismeesteren; Boston & Seattle	
Project Developer, Molsbergen Development		(1.2 in interview analysis)
Function	Project developer & owner and founder of Molsbergen Development	
Organisation	Respectively MAB & Molsbergen Development	
Projects	De Rotterdam	
Area Manager, BPD (Rotterdam region)		(1.3 in interview analysis)
Function	Area manager for the Rotterdam region	
Organisation	BPD	
Projects	Boston & Seattle; The Sax Havana	
Urban Development Supervisor, Municipality of Rotterdam		(1.4 in interview analysis)
Function	Architect & Urban development supervisor of the Wilhelminapier	
Organisation	Respectively KCAP Architects&Planners & Municipality Rotterdam	
Projects	KPN Toren op Zuid; Boston & Seattle; Havana & Philadelphia	
Project Developer, Synchron		(1.5 in interview analysis)
Function	Project developer	
Organisation	Synchron	
Projects	Boston & Seattle; Havana & Philadelphia	
Director Urban Development, Municipality of Rotterdam (MoR)		(Appendix IX)
Function	Director Urban Development	
Organisation	Municipality of Rotterdam	
Projects	/ Throughout the whole city	

project(s) of the brownfield (see question marks in Figure 13). The specific conditions that have caused these incentivising effects and that are present at the Wilhelminapier, will be explored.

Figure 13.

Brownfield with iconic project that may/may not incentivise surrounding developments.



In order to explore the situation of the Wilhelminapier, its development timeline (Figure 11) has been accompanied with the phasing of the main influential project developments, containing their function, iconic status and type of initiation (Table 13). The most influential project developments have been derived from the documents studies and interviews with practitioners, as well as their iconic status.

Table 13 makes clear that five out of the six most influential project developments on the Wilhelminapier have been supported by public investments. Also, these most influential project developments either function as a physical connector in the area or contain (at least) a commercial function. Moreover, projects that have had or haven't had the intention to retrieve an iconic status, have received the iconic status that is in line with the definition used in this research (see type 1 and 4 in Fig. 13). This has not happened the other way around, since type 3 (Fig. 13) does not occur (Table 13).



Table 15.

Phasing of the most influential project developments within the Wilhelminapier area development.

	'90	'95	2000	'05	'10	'15	now
Project	Hotel New York	Erasmusbrug	Metro station	Nieuwe Luxor Theater	De Rotterdam	Cruise Terminal	
Initiation type	Pioneer	Public investment	Public investment	Public investment	Pioneer supported by Public investment	Public investment	
Project type	Type 4	Type 1	Type 2	Type 1	Type 1	Type 2	
Function	Commercial	Accessibility	Accessibility	Commercial	Mixed use (incl. commercial)	Mixed use (incl. commercial)	
Iconic status	Iconic	Iconic		Iconic	Iconic	Iconic	

### Iconic projects on the Wilhelminapier

Both the Project Manager at MoR and the Project Developer at Synchroon have mentioned that iconic projects do not have a particular scale. According to the Project Manager at MoR, projects are iconic when they have the ability to *move you* and, according to the Project Developer at Synchroon, when people somehow *feel connected to them*. The Project Manager at MoR gave the example of De Rotterdam which is huge and vivacious. Whether you like it or whether you don't, anything goes: *"Daar heb je je mening over, maar dat is vaak ook een teken. Het beweegt je."* (Project Manager, MoR). Consequently four out of six interviewees fully agreed on the definition of iconic projects used, whereas two interviewees had comments on the last condition of the proposed definition (which is that iconic projects should 'create a catalysing effect for surrounding developments'). The Area Manager of BPD suggested to replace this condition with the condition that they should have a certain 'X-factor' that makes them attractive to be at, and the Project Developer of Synchroon suggested to leave out the condition as he considered this being not a necessary characteristic. Project Developer at Molsbergen Development fully agrees on the use of the iconic definition and even thinks that this complies with the way how investors see iconic projects as well. A fair remark of the Project Developer at MoR is that, of course, one does not want to make every project iconic: *"Geklets vind ik dat. Soms wordt iets ook een icoon, zonder dat je dat van te voren had gedacht."* (Project Developer, Molsbergen Development). This refers again to type 4 in Figure 13.

When the question has been raised as to whether the interviewees agreed on the appointed projects of Appendix III (De Rotterdam, Erasmusbrug, Hotel New York & New Orleans) being iconic, all interviewees agreed. They think these projects exceed in many ways (Project Manager, MoR, 2019; Project Developer, Molsbergen Development). The fact that they are iconic is found evident and considered not in dispute because of their extraordinary and priceless value (Project Manager, MoR; Project Developer, Molsbergen Development; Area Manager, BPD). On the subsequent question whether the practitioners want to add or eliminate any project to/from the project list however, four interviewees did have some suggestions. New Orleans has been eliminated, as it was considered not interesting enough and as it did not have a *'tjakkafelling'* (Project Developer, Molsbergen Development; Area Manager, BPD). Two building projects were added, being The Sax and the Cruise Terminal. The Sax has been added by its developer (Area Manager, BPD). He mentions that the architecture of the building will become iconic and that the building will attract many people. Since this project is not yet being constructed, it is considered that the intention was to consciously develop an icon rather than just a building (type 1 & 3, Figure 13). The Cruise Terminal has been added by one of the developers of Boston & Seattle because of its history (Project Developer, Synchroon). This quality has consequently been used in their concept for Boston & Seattle as well. Two projects not on building level have been added to the list too. These are the *urban ensemble* and the *water*, respectively because of its admiration and photogenicity and because of the dynamics of the harbour (Project Manager, MoR; Project Developer, Molsbergen Development).

Thus, the Erasmusbrug, De Rotterdam, Hotel New York, the Cruise Terminal and The Sax as well as the urban ensemble all are considered iconic projects on the Wilhelminapier according to the practitioners. The water itself has been mentioned as well, however, according to some interviewees, this can not be appointed an iconic *project*. Therefore, its dynamic character will be taken into account, however, it is not appointed an iconic project.



### Catalysing project of the Wilhelminapier

As regards to catalysing projects, other statements were made. The Area Manager at BPD mentioned no less than nine projects that have catalysed the surrounding developments of the Wilhelminapier. This means that, out of the 13 projects that now have been realised or are under construction, almost  $\frac{3}{4}$  (!) of the projects functioned as a catalyst. What corresponds with that, is the statement of the Project Manager at MoR which says that actually all projects have had a catalysing effect on the surrounding developments in their own way: *“Dus ja, de ene stap betekent een voedingsbodem voor de volgende en dit is bij uitstek het elkaar versterkend gegeven.”* (2019). *They all agree that a catalysing project is very important for urban area developments: “Een aanjager is héél belangrijk. Als het er al niet is, dan moet je kijken: wat wordt die aanjager?”* (Area Manager, BPD). However, all interviewees named Hotel New York as a project that has catalysed surrounding developments. Amongst others, because of its incredibly beautiful location, as it is surrounded by lots of water which again provides a unique view towards Rotterdam and the Maas, but also since it is attracting people with its commercial functions since 1993 already: *“Die hebben dat hip gemaakt op die kop. Mensen moesten daar komen en daarmee is het gaan ontwikkelen.”* (Project Developer, Synchroon). The developer of De Rotterdam thinks Hotel New York and the Cruise Terminal were the starters, however De Rotterdam and Pakhuismeesteren made the difference: *“Het was altijd een interessante plek, maar een beetje winderig en verlaten. En nu zie je dat dat echt leeft. Eerst was het een destination, nu is het een gebied.”* (Project Developer, Molsbergen Development).

According to the practitioners, all projects have had catalysing effects on the surrounding developments in their own way, however Hotel New York unanimously launched the urban area development.

### Influence of iconic projects

The near presence of projects that are considered high-profile and prestigious according to both experts from the field and the general public, has proven to be taken into account by all interviewees and is well substantiated. Yet, how this has been used, differs per interviewee. Both personal feelings about the city, a nearby project and its surrounding area, as well as the image that the majority of people have (e.g. proven by most popular tourist websites (Area Manager, BPD)), have been mentioned to be taken into account during the decision-making process of a development (Project Manager, MoR; Project Developer, Molsbergen Development).

Not only the current surrounding high-profile and prestigious projects, but also the general ambitions of the transformation area are mentioned by the interviewees as factors that play a role in the decision-making process of a development: *“Dit gebouw [Boston & Seattle] kon alleen omdat we al een aantal andere grote gebaren hadden gemaakt. De volgende moet dat weer maken.”* (Project Manager, MoR). This shows the high ambition of the municipality for each plot on the Wilhelminapier, which according to Area Manager at BPD functioned as an incentive to develop in the area as well. High ambitions for the whole area are very useful as prestigious and high-profile projects do not only play a role in the decision-making process, but they sometimes even are actively used for the branding of the location as part of the locational character (Project Developer, Synchroon). Moreover, the Urban Development Supervisor and Project Developer at Synchroon explicitly mentioned that non-measurable variables, such as a prestigious appreciation due to iconic architecture, are made measurable variables by means of the property value. In that way, the influence of the prestigious and highly profiled projects could even be quantified. Nevertheless, the qualities of existing projects are definitely used for new developments: *“Het liefst haken we aan op bestaande kwaliteiten, die zoeken we dan ook op. En die bestaande kwaliteiten willen we versterken en op meeliften.”* (Area Manager, BPD).

Based on these findings, the most influential conditions of iconic developments on the Wilhelminapier that could contribute to incentivising developers to (re)develop, could be distinguished. These conditions will be discussed below from most to least influential within the categories ‘tangible incentivising conditions’ and ‘intangible incentivising conditions’.

### Tangible incentivising conditions



#### Functional characteristics

All iconic projects on the Wilhelminapier either have a commercial or infrastructural function (Table 15 and Appendix III). These functions make the projects accessible to all. Having a function that is publically accessible is considered a significant, influential condition of iconic projects on the



Wilhelminapier that contribute to incentivising developers to (re)develop. As the director of Urban Development at the municipality of Rotterdam says: *“Dus ik denk dat iconisch ook wel te maken heeft met vernieuwend of bijzonder zijn in vormgeving, in zijn programmering, in de combinatie van functies.”* (Director Urban Development, MoR).



### Location

The location of the iconic project could play a role in providing incentives for further development in two different ways: 1) either the location of the iconic project itself provides the incentives (e.g. the unique location of Hotel New York at the tip of the peninsula), 2) or the location of the iconic project itself is not that important but the location of the surrounding development plots that are nearby/overlooking the iconic project. The first role became clear from the interview with the developer of De Rotterdam. He went to the municipality with plans for the plot to reserve a development position, because they saw lots of potential in the location: *“Wij zeiden eigenlijk dat een het een stuk aan de rivier was wat potentie had om een stukje binnenstad te worden op een andere manier.”* (Project Developer, Molsbergen Development). That potential was substantiated by the development of the Erasmusbrug, which optimised the connection of the peninsula with the inner-city of Rotterdam. The second role became clear from the interview results too, for instance from the interview with a project developer at Synchroon: *“We hebben uiteindelijk H.A.L. naar die plek [Boston & Seattle] kunnen krijgen omdat zij een toren kregen met uitzicht op die Cruise Terminal, waar dus al die cruise schepen redelijk vaak voor varen.”* (Project Developer, Synchroon). In addition, single projects in successful area developments are generally addressed integrally. The municipal project manager of the Kop van Zuid expresses that the following way: *“Wat dat betreft is het werken aan zo’n gebiedsontwikkeling echt wel heel integraal hoor. Je kunt dingen alleen maar doen omdat andere dingen er ook al zijn. Dus dat geheel is onderdeel van feitelijk je propositie van je locatie en van waarom een gebouw interessant is.”* (Project Manager, MoR). One is thus always building upon what is there already: no ‘cathedrals in the desert’ are present at the successful area redevelopment of the Wilhelminapier. These three examples clearly show that the location of iconic projects contributes to incentivising developments.



### Physical characteristics

Attractive physical characteristics of iconic projects contribute to their own image as well as the image of the (larger) area. As the project developer of De Rotterdam mentions, the physical appearance can become a trademark and receive a postcard value: *“Wanneer er iets met Rotterdam aan de hand is, is de Erasmusbrug, wat natuurlijk ook mega iconisch is, met dit gebouw erbij als een soort ansichtkaart van dit gebied. Dat is gewoon zo. Het is gewoon een trademark geworden eigenlijk.”* (Project Developer, Molsbergen Development). This strokes with the theory of Verheul (2012) about the fact that icons should have a postcard value and be reducible to the size of a stamp (§2.3). Concerning the Wilhelminapier however, the coherence of all projects together is often mentioned to be very attractive (Project Manager, MoR; Project Developer, Molsbergen Development; Urban Development Supervisor; Director Urban Development, MoR), e.g.: *“Het is de samenhang van een hele hoop gebouwen bij elkaar, het ensemble geeft identiteit aan de stad.”* (Director Urban Development, MoR). Attractive physical characteristics of projects could thus incentivise developments, but the physical appearance of the area as a whole is perhaps more important in this case.



### Scale

The scale of iconic projects could play a role in providing incentives for further developments, but they do not necessarily. De Rotterdam, for instance, is very notable and noticeable due to its huge size: it is the largest building of the Netherlands. This characteristic contributes to its iconic status and it functions as an incentive for project developers to (re)develop, as it accommodates a large number of people and therefore brings life into the area (De Rotterdam is responsible for a quarter of the visitors of the Wilhelminapier (De Rotterdam, n.d.)). A large size makes the project stand out of the crowd as well, which however is a condition that does not function as an incentive for developers at the Wilhelminapier. Project developers rather see this condition as a discouragement, since it could block their view or be a distraction (Area Manager, BPD). Moreover, small- to medium-scaled iconic projects, such as Hotel New York (which is considered iconic by all interviewees) could incentivise project developers too. This however is not directly attributable to its scale. All in all, not the tangible and physical characteristics of large-scaled iconic projects, but the common spillover effect of bringing life into an area incentives project developer to (re)develop.

## Intangible incentivising conditions





### Socio-cultural characteristics

As for instance visible in the Boston & Seattle development, the history of the peninsula played a large role in their concept: *“De opdracht die de architect heeft mee gekregen was: hoe kun je nou dat verhaal van de Holland-Amerika Lijn meenemen in je gebouw? Op die manier hebben we geprobeerd om die historie terug te brengen op de plek [Boston & Seattle].”* (Project Developer, Synchron). A remark however must be made, as the former user of the peninsula (H.A.L.) made the development feasible by investing in 110 of the 218 apartments. Through this project, the developer provided an answer to the demands of their client. The vision of the project thus specifically dealt with the ambitions of the H.A.L., which was to create apartments for their former employees: the sailors. Nevertheless, the history of the area provides character and identity. On the question to what extent projects of close presence providing a feeling of unicity and identity play a role in the decision-making process of a (re)development, it appeared to be particularly important for the financial ambitions of the (re)development: *“Dat is gewoon heel belangrijk, niet alleen voor of we het wel of niet doen, maar vooral ook met welke ambitie je er in gaat. En vooral ook welke financiële ambitie.”* (Area Manager, BPD). In addition, areas with a strong character are generally highly appreciated: *“Kades en die oude gebouwen in havengebieden geven historische diepte en karakter en je merkt dat dat enorm gewaardeerd wordt.”* (Urban Development Supervisor). This appreciation could contribute to a greater use and higher density. On the Wilhelminapier, socio-cultural characteristics and specifically historical characteristics functioned as a major incentive for project developers to develop.



### Image

Retrieved from the interview results, the bad image of the Kop van Zuid appeared to be a barrier before the initiative of the urban redevelopment plans. Riek Bakker made that clear in her speech about the Kop van Zuid during ‘Riek Bakker Spreekt | Lustrum 25’: *“En toen zat ik 's avonds, als ik de stad rondgegaan was, hier in het hotel en keek ik iedere keer naar die overkant en dacht ik: “Ze zijn eigenlijk helemaal gek hier. Waarom doen ze daar niks mee, wat is dat daar?” Dus toen had ik al zoiets van: daar moet iets gebeuren. En vroeg ik de volgende dag aan mensen van: “Waarom doen jullie dat niet?” Ohh, en daar moest ik afblijven. Dat kon écht niet. Daar waren andere mensen en die deugden eigenlijk niet.. Nou ja, zo zeiden ze dat eigenlijk niet, maar ja.. Dat waren vroeger gastarbeiders uit Limburgse dorpen, Groningse dorpen. Daar is helemaal niks mis mee. Dat is allemaal perceptie, dat zit in je kop!”* (Appendix VIII). With her strong vision and plans for the area, she subsequently ensured an image change for the Kop van Zuid: *“De ontwikkeling van de Wilhelminapier is te danken aan Hotel New York. En die is te danken aan onder andere Riek Bakker, door voor de Erasmusbrug voet bij stuk te houden.”* (Project Developer, Synchron). That urban vision has been directly adopted by project developers for the specific plots on which they had a development position (Project Developer, Synchron). In particular project developers that develop housing for the higher segments and for long-term commitments, are looking for yet an attractive image and existing qualities in the development area: *“Als je dat hogere segment aan wilt trekken, dan moet het een aantrekkelijk gebied zijn. Dan moet je iets hebben zoals die prikkel (...) Dus het liefst haken we dan aan op bestaande kwaliteiten, die zoeken we dan ook op.”* (Area Manager, BPD). And: *“Eigenlijk zoek je naar betekenis. En als het er niet is, dan zal je het moeten geven.”* (Area Manager, BPD). According to a project developer working for a development company that focusses on creative and sustainable projects (not necessarily long-term committed) they either make use of the present catalysing project(s) or they provide such projects or place-making projects themselves (Project Developer, Synchron). Lastly, the image of certain individual projects that were initiated with the intention to become iconic, appeared to be important for the developer and municipality themselves, but has not demonstrably incentivised project developers on the Wilhelminapier to (re)develop as well: *“Wat voor ons heel belangrijk was, was juist dat imago. Daarom is denk ik ook het gebouw [De Rotterdam] ontstaan. Onze belangrijkste keuze was om de architect Rem Koolhaas te vragen om dit gebouw te kunnen maken.”* (Project Manager, MoR).



### Uniqueness and innovativeness

All projects on the Wilhelminapier are considered quite unique, for instance substantiated by the fact that all projects have their own name. In addition, the uniqueness and / or innovativeness of iconic projects on the Wilhelminapier often is derived from their image, socio-cultural (often historical) characteristics, architectural appearance or function. Consider for instance the architectural qualities and vertical city function of De Rotterdam, the history of Hotel New York, the function of Het Nieuwe Luxor and the architectural qualities of the Erasmusbrug. As the uniqueness thus usually derives from other qualities and the innovativeness of projects does not play a demonstrably



incentivising role, this condition will not be explicitly included.



### Fame of the architect

The fame of the architect has clearly been taken into account, mostly by the municipality. This for instance became clear when talking about the development of Boston & Seattle: *“We hadden eerst een heel ander ontwerp. Toen moesten we een andere architect kiezen ook vanuit de gemeente, er moest meer naam qua architect bij.”* (Project Developer, Synchroon). The same holds for the redevelopment of the KPN Toren op Zuid, as the municipal urban supervisor of the Kop van Zuid mentioned: *“Op een gegeven moment, wij in de trein naar het bureau van Piano in Parijs. En toen op een gegeven moment draaide dat om. Dus in plaats van dat ze [the client and developers] daar niet overleg mee wilde hebben, dachten ze ja, dat is toch wel iets extra’s en eigenlijk wel leuk. Dus het ontwerp wat er nu ligt is met instemming van Bureau Piano en dat is precies wat ik eigenlijk wilde.”* (Urban Development Supervisor). For the development of De Rotterdam, the developer initiated the idea to let the development be designed by a starchitect: *“Onze belangrijkste keuze was om de architect Rem Koolhaas te vragen om dit gebouw te kunnen maken.”* (Project Developer, Molsbergen Development). All in all, the fame of the architect played a role in the high ambitions for the urban area and consequently its image. It therefore is considered a condition that plays a role in incentivising developments, however on urban level: not so much on project level, as no single architects that designed surrounding projects were mentioned by the interviewees.



### Development process

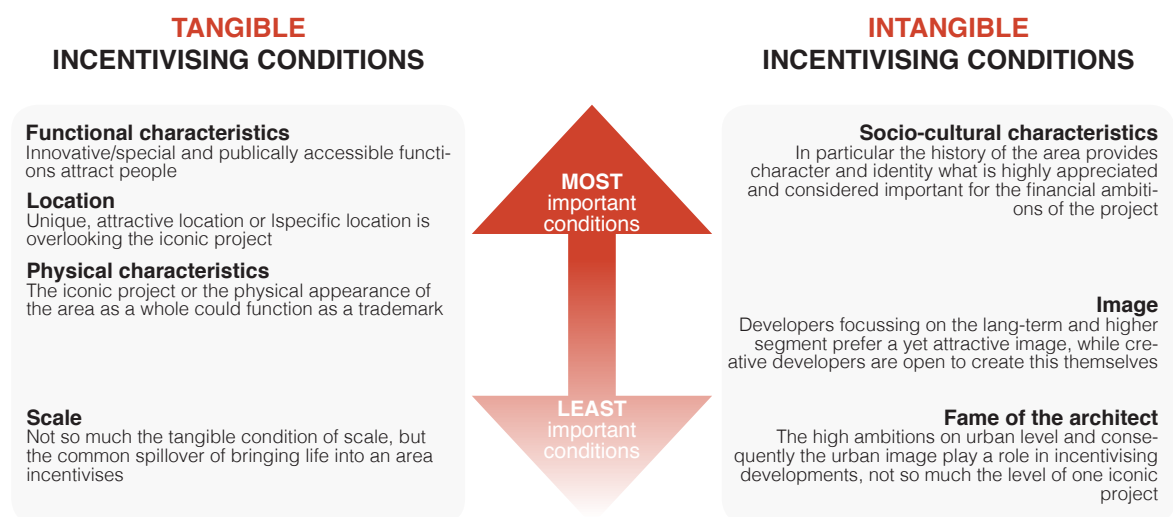
No certain (re)development processes of both the iconic projects appointed in Table 13 and the iconic projects appointed by the interviewees (Appendix VI) have demonstrably incentivised project developers on the Wilhelminapier to (re)develop.

### Summary

The in-depth case analysis resulted in an understanding of the conditions of iconic buildings that incentivise project developers to (re)develop on the Wilhelminapier. Those conditions were described in the analysis as either tangible or intangible parameters. Although the results have been described in text before, figure 14 illustrates these results in order to provide a clear and final overview. In this figure, the conditions of iconic projects on the Wilhelminapier that contributed to incentivising developers, why and to what extent are illustrated in a spectrum of most to least important conditions. This spectrum will function as a foundation for the cross-case analysis and will be used to give answer to the second subquestion.

Figure 14.

A spectrum of the most to least incentivising conditions of iconic projects on the Wilhelminapier.





## 4.3 Katendrecht

### 4.3.1 Case description

Area:	56,2 ha. (excl. Rijnhavenbrug) <sup>1</sup>
Inhabitants:	4.764 on 01.01.2017 (Gemeente Rotterdam, 2018b)
City:	Rotterdam
District:	Feijenoord
Neighbourhood:	Katendrecht (Figure 9).

Katendrecht is a peninsula in the South of Rotterdam. It is located just underneath the Wilhelminapier and surrounded by the Maashaven, Nieuwe Maas and the Rijnhaven (Figure 9). On the east side, the neighbourhood is connected to the Afrikaanderwijk. It formerly was a harbour area, a red-light district and Chinatown. Since around 2000, Katendrecht has undergone a huge metamorphosis (Oudenaarden & Vroegindeweij, 2015, p.419). It went from a notorious problem neighbourhood where most people would rather not go, to one of the most popular and safe neighbourhoods of the city (Gemeente Rotterdam, 2019). It now consists of a unique mix of historical buildings and modern new constructions.

### History

The peninsula Katendrecht has got a rich and diverse history. For instance, it has had many different names over the years: Catendrec, Cathendrecht, Kattenrec, Cathedregt, Cattendrecht en Catendrecht. There is no certainty about the origin of these names. Also, it has been a polder, municipality and a village. Nowadays, however, the peninsula is a district of Rotterdam and it is called Katendrecht, nicknamed “*de Kaap*” (Historisch Katendrecht, n.d.).

Katendrecht has been a prosperous village in the 19<sup>th</sup> century surrounded by fertile polders, where prominent Rotterdam families had a country retreat for the summer. Also, the Maashaven was being constructed and completed in 1905, with the result that only a narrow peninsula remained of the village on the river. As Katendrecht has since been surrounded by the ports and their warehouses, it became a more or less isolated village. At the same time, the port of Rotterdam was attracting potential dock workers. Between 1894 and 1908, many new houses were built on Katendrecht where in particular people from Zeeland and Noord-Brabant moved to, in order to work in the harbour (Historisch Katendrecht, n.d.; Appendix VIII).

When in 1911 many sailors went on strike, many Chinese strike breakers were brought to Rotterdam and settled on Katendrecht. After World War I, more and more Chinese moved to Katendrecht and a Chinese colony was established (Historisch Katendrecht, n.d.). Around 1915, the area around the Zandstraat (at that time a notorious nightlife street) was demolished for the construction of a new town hall and main post office on the Coolingsingel. As a result, prostitutes went to the Schiedamsedijk (de Dijk) and Katendrecht (de Kaap) (Oudenaarden & Vroegindeweij, 2015). Because of the irregular lifestyle of the dock workers and the Chinese, but also because of ladies of red-light district, Katendrecht at that time has got a bad name (Historisch Katendrecht, n.d.).

Eventually 1.300 Chinese people lived in Rotterdam, and mainly in Katendrecht. Many became unemployed as a result of the economic crisis of 1929. Since they were not eligible for state support, a famine arose. In an attempt to cope with this, the Chinese started to sell *teng teng*, peanut cookies, for five cents from 1931 (Oudenaarden & Vroegindeweij, 2015, p. 163). Given their bad situation, 1.200 Chinese were shipped to Hong Kong in 1936. At the start of World War II, only 209 Chinese were left on Katendrecht (Oudenaarden & Vroegindeweij, 2015, p. 163).

On May 14th, 1940 the German bombardment took place (§4.1.1). Katendrecht was located outside the severely affected area, but the bombing and the subsequent fire did cause major changes in the neighbourhood (Oudenaarden & Vroegindeweij, 2015, p. 258). The bombardment destroyed the Schiedamsedijk. As a result, Katendrecht was the only district left with a red-light district and the nightlife from Rotterdam had moved en masse to Katendrecht (Oudenaarden & Vroegindeweij, 2015). At the end of World War II, the port installations were blown up, resulting in 1.500 homes becoming uninhabitable (Historisch Katendrecht, nd.).

In 1972 there were now 121 brothels. This growth was not something that stimulated the atmosphere at Katendrecht. Many residents were fed up with the nuisance caused by prostitution and the situation of the living environment. As protest against this, even physical violence took place. That is why residents living on Katendrecht founded *Areka* (Actiegroep Redt Katendrecht) (Historisch

<sup>1</sup> Measured via Google Maps. Google, 6 March 2019. Retrieved from: <https://www.google.nl/maps>



Katendrecht, n.d.). Then, Katendrecht was designated as an urban renewal area in 1975 (Oudenaarden & Vroegindewey, 2015 p. 478). Between 1975 and 1990 during the urban renewal, 850 homes and 57 business spaces were renovated and 750 new-build homes were built on the Eerste and Tweede Katendrechtse Haven. Thanks to the urban renewal and the protests of the residents, the inconvenient prostitution completely disappeared from Katendrecht. Nevertheless, between 1990 and 2000 the neighbourhood was not considered attractive for future residents or businesses (Historisch Katendrecht, n.d.).

On old business locations, a lot of housing and a school have been built. Old buildings were renovated, such as at Deliplein, made available as DIY houses, for example Tolhuislaan, or were replaced by new buildings, such as at the Katendrechtsestaal. The Kaappark and the ss Rotterdam were constructed and there were plans to connect Katendrecht to the opposite Wilhelminapier via a bridge for walking and cycling. Despite the fact that the crisis has led to considerable delays, the campaign "*Kun jij de Kaap aan?*" brought wide attention to developments and eventually welcomed many new residents to de Kaap (Historisch Katendrecht, n.d.). This is considered the start of the restructuring of Katendrecht. The radical transformation of the neighbourhood results in an interesting mix of old and new and has a very different atmosphere compared to the Wilhelminapier.

#### 4.3.2 The redevelopment Redevelopment vision

At the start of the restructuring process of Katendrecht, it was still a neighbourhood that had many social problems. The unemployment rate of the neighbourhood was above 40% (which was more than twice as high as in the city), the neighbourhood had relatively many low-educated people and the feeling of safety among its residents was low (Van der Ent, 2015). Also, many homes were outdated and commercial functions were boarded up. In Katendrecht, there was lots of space to develop due to the departure of the port activities from the centre of Rotterdam towards the North Sea. Moreover, Katendrecht has the physical, social and economic characteristics of a transformation area. Katendrecht should therefore be extensively renovated and densified between 1995 and 2020, which is planned in the '*Strategische Wijkplanpak*' (Uiterwaal, 2009, p. 63).

Renovation of the old part of Katendrecht was necessary and there was a lack of facilities. Katendrecht was therefore provided with a program consisting of 1.300 homes and 13.000 m<sup>2</sup> of facilities, businesses and offices. Part of the existing housing stock on Katendrecht (1.700 of which 90% was owned by Woonstad Rotterdam) was also included in the transformation plans. Parties that played a major role in this area development were OBR (Ontwikkelingsbedrijf Rotterdam), DS + V (Dienst Stedenbouwkunde en Volkshuisvesting), ProperStok B.V., Rabo Bouwfonds, Woonstad Rotterdam (then: De Nieuwe Unie) and Deelgemeente Feijenoord (Uiterwaal, 2009, p. 64).

However, developments stagnated due to a declining construction market in 2002 and as a result, an integrated development vision has been drawn by OBR and dS + V together with market parties: the '*Ontwikkelvisie Katendrecht*' (dS+V & OBR, 2005; Berkhof, 2011). This has been supported by a two-fold area campaign, under the slogans: "*Kun je de Kaap aan?*" and "*Ja, ik kan de Kaap aan.*" They decided to no longer present an ideal image of the neighbourhood, but to stay close to its reality. Private parties hoped to better absorb possible setbacks by the presentation of a realistic picture. Katendrecht was presented as a tough and dynamic area in development, hence the provocative question "*Kun je de Kaap aan?*" that was asked to visitors and future residents. This area campaign was an attempt to attract pioneers who dared to take on the challenge (Van der Ent, 2005). In order to create new confidence in Katendrecht among the current residents of Katendrecht, the importance of good communication with them was considered decisive (Uiterwaal, 2009, p. 64). The campaign responds to this by providing insight into the program and the developments at Katendrecht. This intends to attract potential residents on de Kaap as well (Berkhof, 2011).

The goal of the *Ontwikkelvisie* was to transform Katendrecht into a neighbourhood that on the one hand has an urban character, but on the other hand has a lot of greenery where families and seniors, as well as artists and young potentials can settle. However, the vision also makes clear that the planned developments are mainly aimed at attracting higher income groups (dS+V & OBR, 2005). Leading actors in this implementation are the municipality of Rotterdam as well as the borough of Feijenoord, the housing association Woonstad Rotterdam and the other project developers (Berkhof, 2011). The following three areas are being addressed in the *Ontwikkelvisie Katendrecht* (dS+V & OBR, 2005):



### 1) *'De oude kern': the old core of Katendrecht*

This area is and remains the heart of Katendrecht. Pre-existing properties, mainly consisting of social housing and some commercial functions, will mainly be renovated here and in some places demolished and replaced by new properties. The old core has also been designated as a kind of hatchery for new initiatives. The central Deliplein has been declared a *groei briljant* here. This should attract young potentials and artists, who should become the trendsetters for living at de Kaap. Moreover, the municipality and Woonstad developed the zoning plan *Katendrecht Kern* between 2005 and 2008. In here, the plans of transforming the historic residential centre were anchored. This included for instance that, after more than twenty years, a new bridge connection had to be developed between the Deliplein and the Wilhelminapier (Van der Ent, 2015, p. 66). Overall, the old core of Katendrecht should get a calm and green character (dS+V & OBR, 2005).

### 2) *'Het Polsgebied': the entrance area of Katendrecht*

Het Polsgebied is the entrance to Katendrecht. The port industry will remain on the north quay of het Polsgebied. In the other areas of het Polsgebied, mainly new residential constructions are planned, having urban, dynamic and unusual features, characterised by industrial elements. Mostly high- and middle high-income homes will be realised here, with the target group being young potentials, seniors and students (dS+V & OBR, 2005). Moreover, the European China Center was planned to settle here at the time the Ontwikkelvisie was created, however that plan does no longer exist.

### 3) *The south side of Katendrecht*

The Hanno port company used to be located here, however the area now is an urban area of Katendrecht where het Haven-, Laan-, Park- and Rivierkwartier are being realised. These plots will contain modern city blocks, interspersed with port buildings. These homes are mainly characterised by their above-average asking prices. The target groups here are young, urban-oriented families, the elderly and relocating citizens of Katendrecht, with above-average incomes. Here as well, a number of plots have been purchased for pragmatic home construction on which people can design their house according to their own taste. This primarily focusses on people from the creative class. From 2007, the ss Rotterdam has been docked at the Rivierenkwartier since 2007. The land of the Rivierenkwartier therefore functions as parking space for visitors of the ship (dS+V & OBR, 2015).

## **Redevelopment process**

At the start of the development of the aforementioned vision, the first housing plans were successful, partly due to the strong housing market at that time. In 1998, after decades of negotiations, the port company Hanno was relocated from the neighbourhood and the south side of Katendrecht could be developed. The first development project on het Tweede Katendrechtse Hoofd was taken up energetically: the construction of 150 single-family homes and 95 apartments in two large building blocks by Bouwfonds (Van der Ent, 2015). However, developments stagnated under pressure from a declining market in 2002 and a poor area campaign. As a result, the municipality quit the large-scale acquisitions of land. Projects such as the Parkkwartier did not get off the ground. Bemog Projectontwikkeling, the developer of the Parkkwartier at that time, only sold a marginal six houses in just six months. The plans of the municipality and private parties were not realised, which annoyed the residents of Katendrecht. The rough start meant the end of involvement of Bemog Projectontwikkeling (Appendix I). The municipality was back to square one and had to develop a new approach (Van der Ent, 2015).

This stagnation and the assignment from the central government to restructure existing Katendrecht together with the municipality of Rotterdam and Woonstad was the reason to follow a new direction for the development of Katendrecht (Uiterwaal, 2009). That is why the integral development vision '*Ontwikkelvisie Katendrecht (2005)*' has been drawn up in 2005. Typical for the Rotterdam approach is the creation of an integrated development vision per neighbourhood. In those visions, the municipality, the housing association and possibly other parties involved set out their plans of action for the social, economic and physical aspects of the neighbourhood. For a plan of actions in Katendrecht, the municipality partnered up with project developer Proper Stok. At the same time, housing association de Nieuwe Unie, which now is Woonstad Rotterdam and owner of the social housing in Katendrecht, was commissioned by the government to transform its housing stock. This meant that Woonstad not only had to renovate the houses in the historic centre, but also had to replace some social housing with owner-occupied housing (Van der Ent 215).





Between 2005 and 2008, the image of Katendrecht was far better than during urban renewal. As a result, the housing corporation and other investment parties now dared to invest. Woonstad and the municipality could therefore focus on quality. The desired hospitality could be attracted and the value of the Deliplein could be increased. During the redevelopment of the Deliplein in the old core, the municipality and Woonstad clearly focused on higher educated people from inside and outside of the neighbourhood. The companies that wanted to establish themselves were, for example, selected on the basis of three C's: Culture, Creativity and Culinary. As a result, mainly relatively expensive bars and restaurants opened their doors on the Deliplein and the gentrification of Katendrecht emerged (Van der Ent, 2015, p. 66). The 'De Driehoek' DIY house project was realised in the old core as well, where the municipality and Woonstad were giving people the opportunity to completely renovate the building and redesign the interior for a symbolic amount of money. The main focus here was on the creative class (dS+V & OBR, 2005).

According to Karin Muiris, owner of restaurant Kwiezien located at the Deliplein, the summer of 2008 has been the turning point of the restructuring of Katendrecht: *"Het hangt hier niet als los zand aan elkaar, er is cohesie. De SS Rotterdam, nieuwbouw, renovatie, een brug, een theater, er gebeurt nu zoveel tegelijk op Katendrecht. Er is allemaal goed over nagedacht. En het werkt, zo blijkt, want we zitten al acht weken lang elke avond vol."* (K, Muiris in Potters, 2008, September 1). Through hard actions by the police after sudden outbursts of violence late 2007 and early 2008, peace returned and the revitalisation finally became noticeable (Van der Ent, 2008). Therefore, the summer of 2008 has been considered the turning point of the restructuring of Katendrecht.

In 2011, almost all new-constructed homes were completed and sold or rented out. The Rijnhavenbrug, a bridge for slow traffic, connected Katendrecht with the Wilhelminapier



since 2012. The restructuring is however not over yet. The current focus is on het Polstgebied, the entrance of Katendrecht (Stichting Rotterdam Woont, 2019). Figure 15 graphically represents the development process of Katendrecht.

### Redevelopment Status

Very close to the centre, a varied range of houses can be found. New constructions, high-rise buildings, DIY houses, old typical mansions. Also the coming years, new unique homes will be realised on Katendrecht. The active stakeholders involved in the redevelopment of Katendrecht are illustrated in Figure 16, abstracted from Appendix I.

Figure 16.

Active stakeholders involved in the redevelopment of Katendrecht, based on the property analysis as shown in Appendix II.



The population composition of Katendrecht (3.700 inhabitants) could be considered unique. On the one hand, there are still many original 'Kapenezen'. On the other hand, the neighbourhood has attracted hundreds of new residents in recent years, including many dual-income households and families with children. That is why the income and education levels in Katendrecht widely varies. This applies to the cultural backgrounds of the residents as well (Municipality of Rotterdam, 2019). However, the transformation of Katendrecht is certainly not over yet. At the moment, most developments are planned or being executed in het Polstgebied (Figure 15).

#### 4.2.4 Iconic status

Because of either function, architectural and/or cultural-historical value, identity, catalysing effects and/or because of being publically discussed, some projects on Katendrecht have been selected to potentially be appointed an iconic project. Appendix II provides an impression of these projects. They moreover have been assessed on their iconic value, based on the requirements that have been set for the four conditions of iconic projects (Table 11 in §3.2.1). The assessment of the potential iconic projects against the requirements associated with the conditions imposed for a project to be iconic, can be found in Appendix III. A summary of the results has been visualised in Table 16. The bold texts represent the projects on Katendrecht that have been appointed iconic according to the used terminology and conditions of this research.

Table 16.

Iconic projects at the Wilhelminapier as a result of the iconic assessment.

Possible Iconic Projects	Phase	Condition I High-profile according to experts	Condition II High profile according to the public	Condition III Provides identity or uniqueness to the area	Condition IV Catalysing effects on surrounding developments
Deliplein	Operational	x		x	x
Fenix Loods I (Fenixlofts)	Operational (temporarily)			x	x
<b>Fenix Loods II (Food Factory + Museum)</b>	<b>Development</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
<b>Pakhuis Santos</b>	<b>Development</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
<b>Rijnhavenbrug</b>	<b>Operational</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
<b>ss Rotterdam</b>	<b>Operational</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>



#### 4.3.4 Findings from practice

The content of this paragraph derives from information obtained from interviews with project developers and managers involved in project developments on Katendrecht. The list of the interviewees for this case can be found in Table 17. The case study findings will be used to answer the following subquestions: “*What role have iconic projects played in the redevelopments of brownfield areas of the retrospective case studies?*” and: “*What conditions of iconic projects in the retrospective case study areas have positively influenced the intention of real estate developers to develop in the related brownfield area?*” These findings will be used to draw conclusions in chapter 6.

**Note:** Reference will be made to the interviewees as follows: (Function, Organisation).

Table 17.  
Interviewees  
Katendrecht.

Director Housing, Frame Vastgoed (2.1 in interview analysis)	
Function	Project developer
Organisation	Frame Vastgoed, before that Proper Stok and Heijmans Vastgoed
Projects	Katendrecht: Area development
Urban Planner (Katendrecht), Municipality of Rotterdam (MoR) (2.2 in interview analysis)	
Function	Urban planner of Katendrecht
Organisation	Municipality of Rotterdam
Projects	Fenix Loodsen
Project Developer, Van Wijnen (2.3 in interview analysis)	
Function	Project developer
Organisation	Van Wijnen, before that Woonstad
Projects	De Bund / Laankwartier, Belvedere, Kaapvaarders, Kaapse Veer
Director Development, Stichting Droom en Daad (SDD) (2.4 in interview analysis)	
Function	Director Development
Organisation	Stichting Droom en Daad
Projects	Landverhuizersmuseum
Director Urban Development, Municipality of Rotterdam (MoR) (Appendix IX)	
Function	Director Urban Development
Organisation	Municipality of Rotterdam
Projects	/ Throughout the whole city

As previously mentioned in §4.2.4, project developments on brownfield sites could take place while consciously opting for an iconic status, or without the intention to retrieve an iconic status. However, in both situations these developments could obtain an iconic status (see Figure 13). As a consequence, iconic project(s) on brownfield sites have the ability to function as a catalyst for surrounding developments. The specific conditions that have these catalysing effects and that are present on Katendrecht, will be explored. Therefore, its development timeline (Figure 15) has been accompanied with the phasing of the main influential project developments, containing their function, iconic status and type of initiation (see Table 17). The most influential project developments have been derived from the document studies, interviews with practitioners as well as their iconic status.

Figure 17.  
Phasing of  
the most  
influential  
project de-  
velopments  
within the  
Katendrecht  
area develop-  
ment.

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Project	ss Rotterdam	Deliplein incl. Theater Walhalla	Rijnhaven-brug	Fenix Loods II	Fenix Loods I	Pakhuis Santos
Initiation type	Private investment	Public investment (partially private); Pioneers	Public investment	Public investment	Pioneer supported by Public investment	Public investment
Project type	Type 1	Type 4	Type 4	1) Type 1 2) Type 1	Type 1	yet unknown
Function	Commercial	Mixed use (incl. commercial)	Accessibility	Mixed use (incl. commercial)	Mixed use (mostly residential)	Commercial
Iconic status	Iconic	Iconic	Iconic	Iconic	Iconic	Iconic



Figure 17 makes clear that all of the most influential projects of the area redevelopment of Katendrecht come from private investments, except for the infrastructural project de Rijnhavenbrug. Also, these most influential project developments either function as a physical connector in the area or contain (at least) a commercial function. Striking is, that all projects that had the intention to retrieve an iconic status, received the iconic status that is in line with the definition used in this research (type 1 in Figure 13). In addition, two of these influential projects did not have the intention to retrieve an iconic status, however, did in the end receive one (type 4 in Figure 13). This has not happened the other way around, since type 3 (Figure 13) does not occur (Figure 17).

### Iconic projects on Katendrecht

Projects are considered iconic when they are commercially successful and when they function as a gesture for the city, without losing sight of their target group (Director Housing, Frame Vastgoed). Such icons are considered of great importance for cities according to her: *“Heel de omgeving ontleent daar toch identiteit uit wat ontzettend belangrijk is voor het stedelijk leven. Dat je geïnspireerd raakt en dat je elkaar vindt. Dat je daar met z'n allen trots op bent. Dus het gaat heel erg om die emotie.”* Iconic projects are projects that could perfectly deal with the complex tension between form and function. Projects that are a gesture for the city could, more specifically, be appointed ‘commercial icons’. According to a Project Developer at Van Wijnen, these are projects that are *iconic for the city*, projects that add something to the signature of the city. He distinguishes this ‘commercial’ type of iconic projects from the ‘social’ type, which are projects that are *iconic for the people*. These projects have the ability to transform an area into an independent and economically decisive area, where all types of residents can live happily together (Project Developer, Van Wijnen). Partially in line with the aforementioned statements that iconic projects do not have a particular scale (§4.2.4) (Project Developer, Van Wijnen), neither do they function as icons for particular target groups. In addition, projects are considered iconic when they are not regularly or mediocre (Director Development, SDD): a more subtle version of having a ‘X-factor’ (Area Manager, BPD).

One of the five interviewees stressed her disagreement with the definition of iconic projects used in this research, whereas the other interviewees agreed. She thinks the defined conditions are too comprehensive, as some projects could also be appointed iconic while only complying with one or two of the conditions (Director Development, SDD). When the question has been raised as to whether the interviewees agreed on the appointed projects of Table 16 being iconic (Fenix Loods II, ss Rotterdam, Pakhuis Santos, Rijnhavenbrug), all interviewees did. Director Development at SDD, however, expressed her doubts about the duration of the iconic status for the ss Rotterdam, as it may gradually be losing it. On the subsequent question whether the practitioners want to add or eliminate any project to / from the list, both the Urban Planner at MoR and Project Developer at Van Wijnen had the suggestion to add Theater Walhalla to the list. The development of this theatre is a good example of pioneers who dared to settle on Deliplein and consequently attracted many people to Katendrecht and positively influenced the image change of the peninsula. Moreover, Codrico as well as Fenix Loods I have been added to the list: both historical buildings that depict the history of the harbour area (Director Housing, Frame Vastgoed; Urban Planner, MoR). Location-specific features, as mentioned in the case of the Wilhelminapier too, such as water and the view on the Wilhelminapier, brought up far different opinions. One strongly agreed that these features should be entitled as iconic projects that incentivise developers, as these features have even been used to sell the Fenix Lofts (Director Housing, Frame Vastgoed). The Project Developer at Van Wijnen however strongly disagreed, as these features are simply part of the location and therefore could not be appointed iconic ‘projects’ (Project Developer, Van Wijnen).

Thus, the Rijnhavenbrug, Fenix Loodsen, Deliplein (including Theater Walhalla), ss Rotterdam and perhaps Pakhuis Santos in a few years are considered iconic projects on Katendrecht according to the practitioners. Like in the Wilhelminapier case, location-specific features were mentioned as iconic projects as well, however since these could not be appointed to a specific development, they will not be encountered as an iconic project. Nevertheless, they will be taken into account when drawing conclusions about (re)development incentives in brownfields as they could contribute to the (re)development motives of developers too.

### Catalysing projects on Katendrecht

Four of the five interviewees mentioned that the Rijnhavenbrug definitely functioned as a catalyst for surrounding developments on Katendrecht. A few laudatory quotes that clarify the impact of the Rijnhavenbrug on the further developments on Katendrecht: *“Het kantelpunt van de gebiedsontwikkeling was toen namelijk nog niet bereikt. Want toen was de Rijnhavenbrug er nog niet. Er is echt een vóór de Rijnhavenbrug en een ná de Rijnhavenbrug (...) Wij merkten eigenlijk na de*



*Rijnhavenbrug dat iedereen dacht van: nu kan het niet meer verkeerd gaan... 'Ja, nu is mijn investering hier zeker.' Dat gevoel, dat merkte je echt."* (Urban Planner, MoR) and: *"De Rijnhavenbrug heeft uiteindelijk echt het verschil gemaakt, dat was het omslagpunt."* (Director Housing, Frame Vastgoed). In addition, Deliplein and the situated Walhalla theatre have functioned as a catalyst for surrounding developments according to three interviewees too. They offered space for creative businesses and upgraded the image of Katendrecht, both literally and figuratively (Urban Planner, MoR; Project Developer, Van Wijnen; Director Development, SDD). The Project Developer at Van Wijnen mentioned that Laan- en Parkkwartier were part of the catalysts for Katendrecht too because they provided differentiation in the housing stock and thereby the residents. Moreover, these developments contributed to developing trust in the area for both residents and other development parties (Project Developer, Van Wijnen). This is supported by the fact that, particularly in difficult and uncertain economic times, the municipality and Woonstad Rotterdam have continued to commit themselves to revitalise Katendrecht (Director Development, SDD).

According to the practitioners, the Rijnhavenbrug, Deliplein and Laan- and Parkkwartier, the first residential redevelopments during the urban redevelopments, have had catalysing effects on the surrounding developments on Katendrecht. In this context, however, it is particularly important to mention the commitment of, primarily, the municipality, Woonstad Rotterdam and Heijmans that laid the foundation for the developments that followed: *"Dat [de kartrekkers van de gebiedsontwikkeling] zijn echt wel Heijmans, of Proper stok destijds, vanuit het commerciële deel qua positionering, in samenwerking met de gemeente Rotterdam, de communicatie adviseurs en Woonstad."* (Project Developer, Van Wijnen).

### **Influence of iconic projects**

The near presence of projects that are considered high-profile and prestigious according to both experts from the field and the general public, has not functioned as an incentive for all respondents. The Development Director of Stichting Droom en Daad, a foundation that focusses on the redevelopments of cultural heritage, only takes into account the qualities of the heritage objects themselves when deciding to develop. Surrounding objects thus have no influence. A developer working at a private real estate company, however, says they make maximum use of surrounding iconic projects as such projects determine the potential qualities of the area. Therefore, they are employed as a marketing tool to get the most out of the potentials (Project Developer, Van Wijnen). The Director Housing of Frame Vastgoed is somewhere in between those opinions. She admits that these conditions could incentivise, however stresses the fact that a strong areal vision is a much bigger incentive.

The near presence of unique projects that provide identity thus has different influences on the decision-making of project developments per respondent. The one project developer used such projects to provide insight into the potential of the area, while the other is more focussed on strengthening the identity and unicity of the area by (steering on) adding suitable programming in stead of free riding on current successful projects.

Based on these findings, the most influential conditions of iconic developments on Katendrecht that could contribute to incentivising developers to (re)develop, could be distinguished. These conditions will be discussed below *from most to least influential* within the categories 'tangible incentivising conditions' and 'intangible incentivising conditions'.

### **Tangible incentivising conditions**



#### **Functional characteristics**

Three of the six iconic projects on Katendrecht have got a mixed-use function, whereas the other three have commercial or infrastructural functions only (Figure 17). This, again, means that all projects in principle are publically accessible to all, however for different purposes each. Whether this could be appointed as one of the incentivising conditions of brownfield developments, is unsure. Nevertheless, what has become clear is that non-iconic projects, such as a community school, have also functioned as a catalyst for the further redevelopments of Katendrecht: *"Een brede school die fungeert als trekker voor de doorontwikkeling van de wijk."* (Director Housing, Frame Vastgoed). In Katendrecht, certain facilities have been strategically deployed to attract new residents: *"Je vraagt aan mensen om een huis te kopen en dat betekent dat je niet kan zeggen: eerst wonen en dan pas komen de voorzieningen. Nee, ik vind dat je moet beginnen bij de voorzieningen. Dus dat betekent maatschappelijk en commercieel handelen."* (Director Housing, Frame Vastgoed). In that regard, in particular social and commercial projects could be appointed as functional characteristics that incentive future residents to settle there. This makes the neighbourhood economically more decisi-



ve, which again lays a better foundation for further developments. In addition, according to the Director of Urban Development at the municipality of Rotterdam who formerly worked as a private real estate developer, developers are in particular searching for key programming: “*Je zocht niet naar iconische gebouwen maar meer naar belangrijke programmering.*” Not only functions as a school have contributed to this, also the small restaurants on Deliplein and the Walhalla theatre: “*Theater Walhalla is één van de doorslaggevende succesfactoren in de gebiedsontwikkeling Katendrecht.*” (Urban Planner, MoR). All in all, the programming of Katendrecht has demonstrably contributed to incentivising developments.



### Location

The Rijnhavenbrug has been enormously important for the revitalisation of Katendrecht. Several respondents mentioned that the bridge has functioned as the major turning point for the developments and image change of the neighborhood: “*Er is echt een vóór de Rijnhavenbrug en een ná de Rijnhavenbrug. Wij merkten eigenlijk na de Rijnhavenbrug dat iedereen dacht van: nu kan het niet meer verkeerd gaan. ‘Ja, nu is mijn investering hier zeker’: dat gevoel, dat merkte je echt.*” (Urban Planner, MoR). Before the Rijnhavenbrug was constructed, the developments that took place on Katendrecht were experienced fairly tense. The successes were not yet guaranteed because: the Rijnhavenbrug was not there yet: “*Het was zeker wel spannend. Omdat het Katendrecht was en omdat misschien toen het kantelpunt van de gebiedsontwikkeling nog niet bereikt was. Want toen was de Rijnhavenbrug er nog niet.*” (Urban Planner, MoR).

On the other hand: we are talking about a neighbourhood in Rotterdam, the second largest city of the Netherlands. The urbanisation trend around the world has been increasing rapidly since the 20<sup>th</sup> century already (United Nations Population Division, 2017). Major cities in the Netherlands thus have lots of potential for developments anyway. For the Project Developer at Van Wijnen, for instance, the location played a minor role in the decision-making process of De Bund development. When the question was asked as to why they choose to develop on Katendrecht, it turned out that this choice actually had nothing to do with location-related features: “*Waarom op Katendrecht? Heel plat gezegd, omdat we daar positie konden krijgen.*” (Project Developer, Van Wijnen). As a project developer, one has a strategic position when you have got the ability to develop close to the city center of major cities. Since the construction of the Erasmusbrug and the metro station, Katendrecht is located relatively close to the city centre of Rotterdam. According to a project developer at Van Wijnen, this has contributed to the successful urban redevelopment: “*Maar als je kijkt naar de locatie in zeer dichte nabijheid van de stad en naast een andere pier [Wilhelminapier] waar ongelofelijk geïnvesteerd wordt om een hoge ambitie te realiseren en om het centrum naartoe te plaatsen. Zonder dat, was het misschien wel veel lastiger.*” (Project Developer, Van Wijnen). The interviewee moreover points out that the redevelopment of a neighbourhood further to the South of Rotterdam, e.g. the Tarwewijk, would have been way more challenging: “*De gene die dié wijk [Tarwewijk] goed ontwikkelt krijgt met een gebiedscampagne: dát zijn pas iconen!*” (Project Developer, Van Wijnen).

Thus, not so much the location of iconic developments themselves, but the location of the brownfield as a whole and in particular its access to the rest of the city is considered to be an incentive for developments.



### Physical characteristics

No specific physical characteristics of individual projects have been found to demonstrably incentivise surrounding developments in the case of Katendrecht. In general, however, the physical appearance of the old harbor buildings is much appreciated. Like the (Fenix) sheds and former warehouses. What in particular is appreciated about these buildings is their cultural-historical value, visible through, amongst others, their length, scale and unique grid size (Urban Planner, MoR, 2019). Such features depict the history of the peninsula. Certain physical characteristics of projects that visualise the intangible historical features of the peninsula are considered to contribute to the attractiveness to develop in the area.



### Scale

The scale of iconic projects could play a role in providing incentives for further developments, however not so much on Katendrecht: “*Maar net zo goed de Fenix Food Factory en Theater Walhalla, die zijn ook heel beeldbepalend, programmatisch dan weliswaar. En dat kan dus ook heel klein, heel intiem, heel warm zijn zoals theater Walhalla. Maar dat kan ook iconisch zijn.*” (Project Manager, MoR). The rather small- to medium-scaled interventions on Katendrecht, e.g. Theater Walhalla,



Deliplein and the Rijnhavenbrug, have become iconic projects. Mostly because of their functional and socio-cultural conditions, however, their relatively small scale (compared to e.g. the iconic projects on the Wilhelminapier) makes the projects intimate and particularly exclusive within the area.

### Intangible incentivising conditions



#### *Socio-cultural characteristics*

Sociocultural characteristics are related to habits, traditions and beliefs of different groups of people in society<sup>1</sup>. Consider for instance the story of the millions of emigrants, leaving the Netherlands from Katendrecht or the Wilhelminapier in the nineteenth century, looking for a better life in another continent. Such histories and characteristics of Katendrecht function both as a meaning creating and history calling catalyst (Claassen, Daamen & Zaadnoordijk, 2012). They represent the culture of the peninsula and therefore, many developments respond to this. Consider for instance the plans for the emigrant museum in Fenix Loods II, that will tell these stories through their exhibitions: *“Dat verhaal wordt gewoon eigenlijk te weinig verteld. Terwijl als er iets is dat leeft in deze tijd, maar wat ook van alle tijden is, is dat mensen migreren. En dat is universeel.”* (Director Development, SDD). Or consider the slogan that has been used as a marketing tool for the revitalisation of Katendrecht: *“Durf jij de Kaap aan?”* that responds to the rough character of the peninsula. These true features of Katendrecht were deployed to attract visitors and future residents (Van der Ent, 2005). On Katendrecht, sociocultural characteristics and specifically the ones that refer to the history of the peninsula have been deployed as meaning creating and history calling catalysts. These could, albeit indirect, make it more interesting and attractive for project developers to specifically develop on Katendrecht. Therefore, sociocultural characteristics on Katendrecht are considered a condition that incentivise project developers to develop.



#### *Image*

The more or less negative image of Katendrecht has been turned into something positive and is consequently deployed as a strategy for the revitalisation of the area. That strategy (used by Proper-Stok, the municipality of Rotterdam and Woonstad Rotterdam) to restructure the negative into something positive has been mentioned by a project developer at Van Wijnen as well (Director Housing, Frame Vastgoed): *“Je probeert al het positieve uit een gebied in te zetten om de potentie van het gebied inzichtelijk te maken voor potentiële bewoners en ondernemers. (...) Het negatieve probeer je bij te sturen, bijvoorbeeld door tijdelijke programmering. Dan buig je het om naar iets positiefs. Ontwikkelen is eigenlijk een heel leuk vak.”* (Project Developer, Van Wijnen). The contradictions of the peninsula have consequently been used as a tool to brand the area (e.g. the fact that it is such a beautiful location where at the same time nobody wanted to live, and that is considered to be a cosy peninsula but on the other hand consisted of many, often experienced less cosy, fluorescent-lit restaurants) (Director Housing, Frame Vastgoed). Within the campagne deployed at Katendrecht prior to the current campagne, a new, rather shiny image of Katendrecht has been promoted. Now, however, the true image of Katendrecht has been used to market the redevelopments. According to the Housing director of Frame Vastgoed, being honest pays off: *“Don't lie, don't deny. Geen grootste idealen. Ze zijn niet gek die kopers.”* (Director Housing, Frame Vastgoed). Moreover, the past appeals to the imagination of many people: *“Katendrecht heeft natuurlijk een heel rijk en stoer verleden en dat sprak tot de verbeeldingen voor veel mensen.”* (Urban Planner, MoR). Although more references were made to the image of the peninsula as a whole rather than the image of certain iconic projects, image is an influential condition that contributes to incentivising developers to (re)develop on Katendrecht.



#### *Fame of the architect*

On Katendrecht, little architecture has been designed by stararchitects. Therefore, it can not be determined whether or not fame of the architect contributes to incentivising developers to (re)develop at this moment.



#### *Development process*

No specific (re)development processes of both the iconic projects appointed in Table 16 and the iconic projects appointed by the interviewees (Appendix VII) have demonstrably incentivised project developers on Katendrecht to (re)develop. Potential iconic projects that are still in the development process, however, in general are being assessed on the parties involved and consequently the expected success rate of the developments: *“Als het nog in ontwikkeling is, ligt het er een beetje aan wie het ontwikkelt en wat de verwachte slagingskans ervan is. Want er zijn ook zat*

<sup>1</sup> Sociocultural. (2019). In Cambridge.com. Retrieved on June 12, 2019 by: <https://dictionary.cambridge.org/dictionary/english/sociocultural>



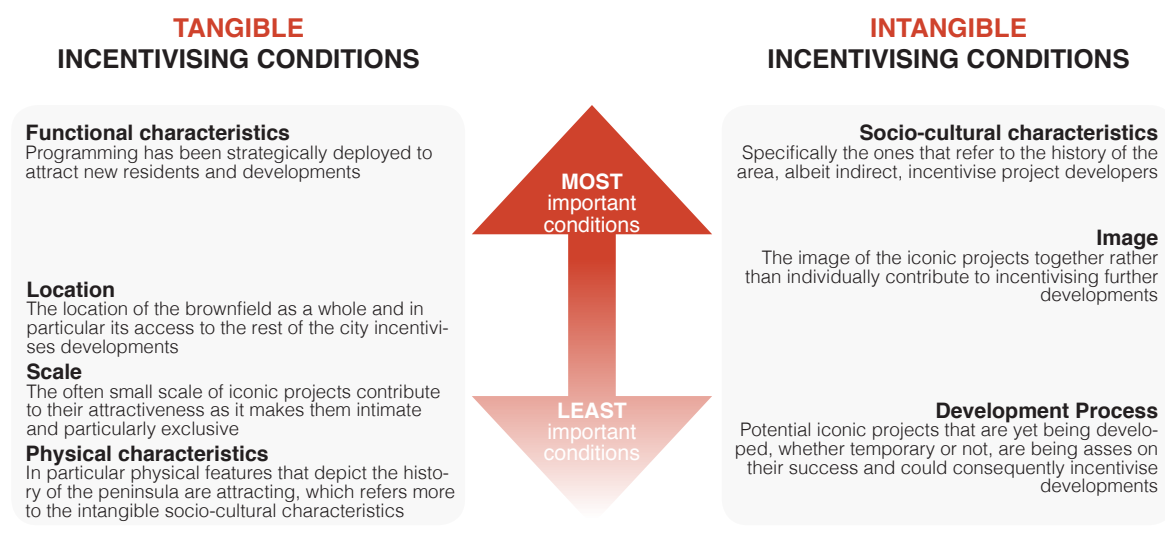
*partijen die hele mooie bergen beloven en uiteindelijk weet je dat de helft er niet uitkomt. Maar toezeggingen vanuit de gemeente bijvoorbeeld zijn daarin ook heel belangrijk. Dus als de gemeente zegt: 'we gaan dit doen' kun je zeggen dat je met die toezegging ook durft te investeren."* (Project Developer, Synchroon). If one subsequently expects the project to be realised like initially announced, they can even be deployed as a marketing tool to increase the value of an area. The same holds for temporary projects or place-makers (Project Developer, Van Wijnen). The development process of ongoing projects is thus taken into account by project developers to estimate whether the project will positively contribute to the image and branding of Katendrecht. If that is the case, the development process could incentivise project developers to (re)develop.

## Summary

The in-depth case analysis resulted in an understanding of the conditions of iconic buildings that incentivise project developers to (re)develop on Katendrecht. Those conditions were described in the analysis as either tangible or intangible parameters. Although the results have been described in text before, figure 18 illustrates these results in order to provide a clear and final overview. In this figure, the conditions of iconic projects on Katendrecht that contributed to incentivising developers, why and to what extent are illustrated in a spectrum of most to least important conditions. This spectrum will function as a foundation for the cross-case analysis and will be used to give answer to the second subquestion.

Figure 18.

A spectrum of the most to least incentivising conditions of iconic projects on Katendrecht.





## 4.4 Merwe-Vierhavens

### 4.4.1 Case description

Area:	150,0 ha. <sup>1</sup>
Inhabitants:	unknown
City:	Rotterdam
District:	Delfshaven
Neighbourhood:	Nieuw-Mathenesse (Figure 9)

Until the mid-1990s, the Merwehaven flourished as a fruit port. With the rise of reefers, refrigerated containers, however, most fruit trade moved to container terminals elsewhere in the port of Rotterdam. As a consequence, many companies left and the port area started to decline since the late 1990s (Port of Rotterdam, 2017). In any case, Merwe-Vierhavens (M4H), one of the four sub-areas of Stadshavens Rotterdam, is now undergoing a radical transition. From a partially decayed port area to an attractive living and working area containing a strong identity (Drift, Erasmus Universiteit & Doepel Strijkers Architects, 2011).

Large-scale spatial, socio-economic and demographic change of raw and polluted port area such as the M4H is considered a complex process. The development will therefore be phased. During the coming thirty years, different parts of the M4H will sequentially be developed. As the area, according to its vision, should provide plenty of room for creative and innovative initiatives from the market, the M4H development has no blueprint or completed urban plan on which every development is yet included, determined and perhaps limited. The area development makes use of the drive and creativity of entrepreneurs, who should have a pioneering role in the development of the area. Therefore, the focus is on the **organic development** of the area, as it is phased, however partly planned and partly spontaneous where constant room is provided for adaptations to new initiatives (Drift et al., 2011).

### History

From 1927 until 1930, *the Merwehaven* has been built specifically for the transfer of general cargo, such as packed fruits and vegetables in crates and barrels. The port built on the success of the four adjacent ports, *the Vierhavens*, which have been built before (Port of Rotterdam, 2017). The Merwehaven presumably made the same brand new impression in the mid-thirties, as the terminals on Maasvlakte 2 are doing now. All kinds of exotic fruits have been traded since its commissioning. A significant increase of the share arose from 1947, as Cornelis Swarttouw opened a giant warehouse in the Merwehaven that included a heating system. For the first time, it was possible to control the temperature in the sheds, thereby extending the expiry date of perishable goods. Since Blaauwvoederveen started using a cold storage after the war too, M4H became the fruit port where vegetables, fruits and juices from South Africa and South America (especially Chile) were received to be transported to the European countries (Port of Rotterdam, 2017).

Due to the rise of the reefers, the fruit trade slowly moved to container terminals elsewhere in the port (Port of Rotterdam, 2017). As a consequence, the Merwe- and Vierhavens were at a turning point at around 2010. They were either further deteriorating, or they made use of their great potential to play an important role in the future of Rotterdam and the surrounding area. That is why an attempt was made to take on this new direction by attracting innovative forces, so that M4H could flourish and thus attract new businesses and residents. A few entrepreneurs, or pioneers, already saw opportunity to move into the area. The next transition of the area has yet started. The desolate, but rough and productive area will be transformed into an attractive and exciting living and working area. This requires a future plan, which is described in the document '*Merwe-Vierhavens: Van woestijn naar goudmijn*' by Drift, the Erasmus University and Doepel Strijkers Architects (Drift et al., 2011).

### 4.4.2 The redevelopment

#### Redevelopment vision

The ambition for the developments of the M4H is that it will become an **international pilot area** for innovative energy supply and water management. In the ports, there is enough room to experiment with new concepts. This will be given a boost by the Climate Campus where scientists, engineers and advisors will interchange their knowledge and skills. Other pioneers, i.e. artists and entrepreneurs in the **manufacturing industry**, will be attracted by the inspiring climate as well and will establish their studio or workplace in the M4H. The **front runners** will even start living here, for instance in floating, CO<sub>2</sub>-neutral dwellings. Eventually, a completely new part of the city will be created,

<sup>1</sup> Measured via Google Maps. Google, 6 March 2019. Retrieved from: <https://www.google.nl/maps>



both at and on the water. The combination of high-quality living environments and port activities with sustainable commuting on land and water receive lots of attention in this ambition (Drift et al., 2011, p. 20).

What this ambition could look like in the future, has been mapped by means of transition arena sessions. Through these sessions, two challenging views have emerged that both outline a possible future of the M4H:

- 1) *M4H as city oasis*
- 2) *M4H as free state*

Both the parties involved and the activities, as well as the control, differs in the two future visions. M4H as city oasis aims for communities that like to live, work and produce together in a cordial environment, while M4H as a free state focuses on rough production and pioneers in a ferocious environment. These two visions of the future will be aligned with each other through atypical, smart and organic development methods. The development starts with the free state vision, after which more and more aspects of the urban oasis will be added. With regard to control, the focus is on creating movement from bottom-up, created through radical and innovative ideas and projects from front runners, and giving top-down direction through an inspiring vision and associated transition paths. In addition, it is important that the interventions should reinforce the desired direction, that risky experiments are permitted and that will be built on the present qualities and potentials (Drift et al., 2011). One has to take into account the area's *genius loci*, without character, there is no right to exist: *"Je moet in de geest van het gebied blijven. Zonder karakter heb je geen bestaansrecht."* Entrepreneur in Drift et al. (2011, p. 13).

In order to map out the (possible) developments in more concrete terms, a number of program scenarios have been drawn up. These helped determine the correct interventions (Figure 20) in the determined subareas (Figure 19). Within these scenarios, the year 2025 is an important milestone since housing then may be discussed. Only after 2025, the program mix of working and living activity is determined depending on the needs present (Schaeken, Milosevic & Dalmeijer, 2014).

Figure 19.  
Eight  
sub-areas  
of the Mer-  
we-Vierha-  
vens (M4H &  
RDM, 2017,  
p.24).



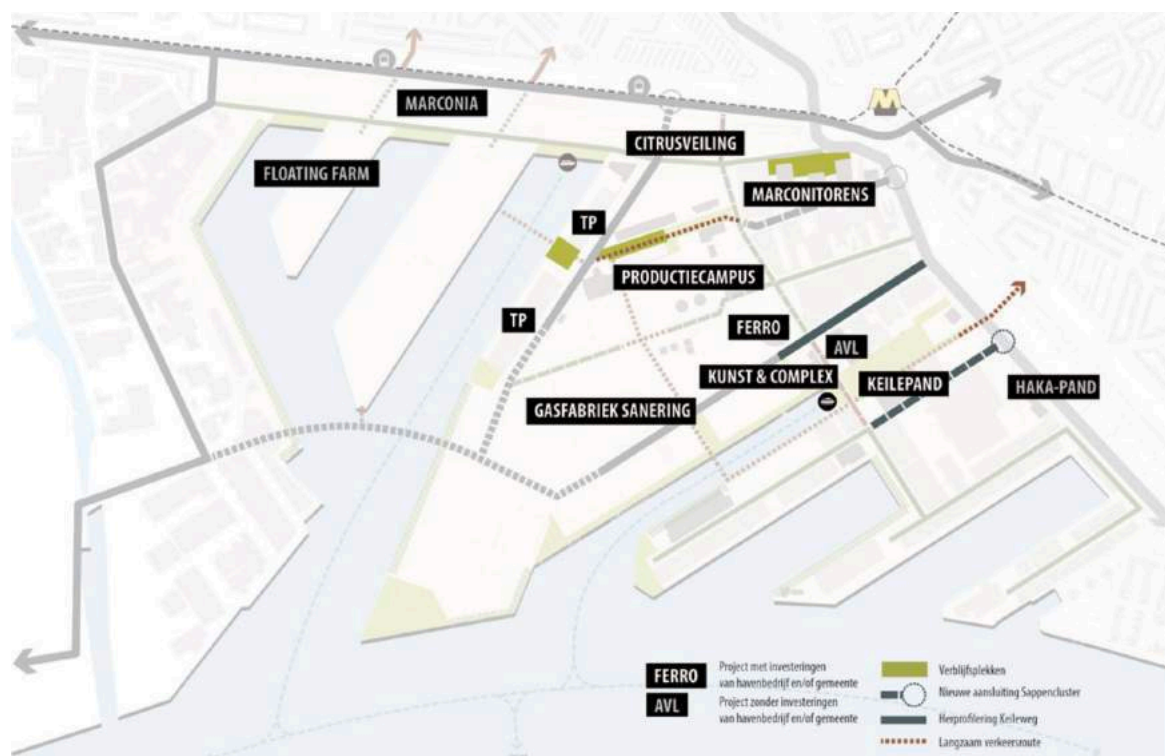
Given the fact that Rotterdam, with its motto *"Rotterdam maakt het"*, is committed to a new economy, the vision of M4H fits in well with the economic ambition of the city too. M4H serves as a pilot area for both the devising and making of innovative products that the city is investing in. An innovative and creative hotspot is being formed in M4H by bringing Clean Tech, the food sector and the medical sector together in the area (Figure 19) where companies, knowledge institutions



and governments will connect in order to together create the testing ground for Rotterdam as a manufacturing city. For the coming period, the five focus projects of the M4H are 1) Vierhavenblok, 2) Marconistrip, 3) Europointtorens, 4) Ferro and 5) Dakpark Rotterdam (Schaeken, Milosevic & Dalmeijer, 2014). The area becomes like the kidneys of the city. The Merwe-Vierhavens as a factory for energy, water and food through which people live and work. Like a Green Machine: “*Het gebied wordt als de nieren van de stad. De Merwe-Vierhavens als een fabriek voor energie, water en voedsel waar doorheen gewoond en gewerkt wordt. Zoals een Green Machine.*” Andy van den Dobbels in Drift et al. (2011, p. 32).

Figure 20.

Concrete projects of the coming 4 to 7 years in the Merwe-Vierhavens (M4H & RDM, 2017, p.27).



### Redevelopment process

The redevelopment process uses modern forms of control, where top-down and bottom-up approaches are combined for both the city oasis and the free state vision. Space is provided for bottom up initiatives, while these initiatives must meet the coherent and overarching vision that is created top-down (Schaeken, Milosevic & Dalmeijer, 2014). Freedom acts as a magnet on entrepreneurs. No hassle, no forms, no waiting: “*Vrijheid werkt als een magneet op ondernemers. Geen gezeur, geen formulieren, niet hoeven te wachten.*” Igor Kluin in Drift et al. (2011, p.65). The development thus asks for a facilitating, stimulating and connecting role from the municipality (Drift et al, 2011). However, the municipality of Rotterdam does have the ability to strongly control and direct the development of M4H, even though this position is not preferred. Namely by being a fellow land owner and by creating structural visions and zoning plans.

By creating ambitious frameworks in which market parties and social partners are being challenged, the municipality tries to provide financial, legal, organisational and mental space for such bottom-up initiatives. Joint choices must then be made, where the municipality has the ability to offer the important role of testing, monitoring and evaluating (Drift et al., 2011). Top-down control however, is more dominant in the city oasis ('green print') and bottom-up control dominates in the free state vision ('white print') as presented in the spectrum of Table 18, consisting of four forms of control (Schaeken, Milosevic & Dalmeijer, 2014).

Blue print	Green print	White print	Red print
Full control on the development of the area	<b>City oasis</b> Dominant top-down control	<b>Free state</b> Dominant bottom-up control	Completely giving away control, thus no restrictions

Table 18.

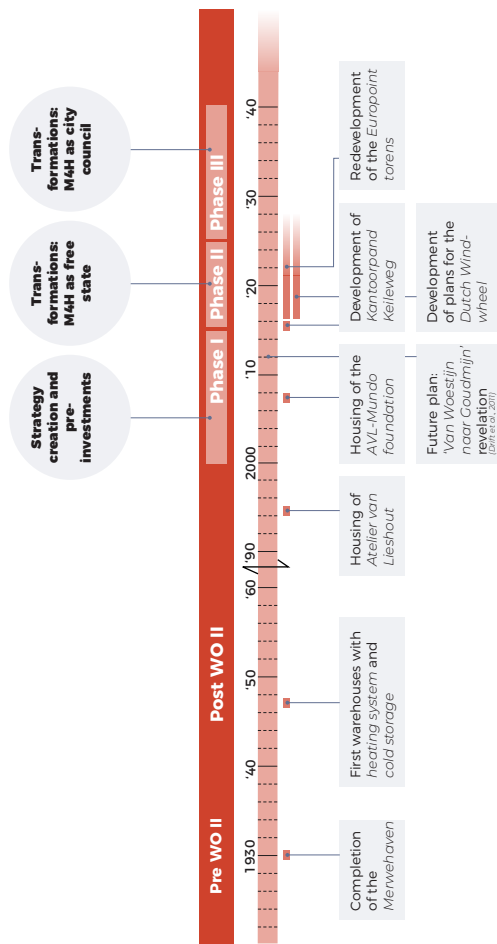
Spectrum of four forms of control, based on Schaeken, Milosevic & Dalmeijer, 2014.



The transformation and the preconditions for the subareas of M4H are divided into three phases, see below (Gemeente Rotterdam, 2011, p. 54). Figure 21 graphically represents the development process of the Merwe-Vierhavens.

Figure 21.

Timeline of the development process of Merwe-Vierhavens, based on Appendix III.



### 1) Until 2015

The pre-investments necessary to attract pioneers to the area are made and the first plots have been transferred to the city. Companies related to the Clean Tech and the Medical industry settled in the area and concrete initiatives for water recycling and environmentally-friendly energy generation are being explored. In addition, a tailor-made transformation strategy has been developed to enable a mix of housing and the urban economy from 2015 (Programmabureau Stadshavens Rotterdam, 2011, p. 55).

### 2) 2015 until 2025

The piers of the Merwehaven become available for developments, which will really get the transformation of the M4H started. Investments are made into innovative ways of living, slow-traffic connections and into the creating of high quality public spaces. Moreover, the first living labs for water management and innovative energy transitions emerge (Programmabureau Stadshavens Rotterdam, 2011, p. 56).

### 3) 2025 until 2040

In phase III, the transformation process continues. Several plots will become available, for instance for floating programs. The pioneers that were attracted earlier will now be followed by trend-setters and trend-followers. Therefore, more investments will be made into public spaces, facilities and the accessibility of M4H, i.e. by a new physical connection with Schiedam. Also, more investments will be made into housing, focussing on the target audience of the city oasis vision that prefers a quite urban environment (Programmabureau Stadshavens Rotterdam, 2011, p. 57).

## Redevelopment Status

M4H: once one of the largest fruit ports in the world, later a desolate area with some hardware stores and now a hotbed for young entrepreneurs and creative minds. The M4H development vision is ambitious and currently in a place making stadium, in order to create 'something' out of 'nothing' and to give meaning to the area. In comparison to the Wilhelminapier and Katendrecht, a small part of the area has been redeveloped yet and the brownfield M4H is considered to be in an early redevelopment stage. The active stakeholders involved in the redevelopment of M4H are illustrated in Figure 22, abstracted from Appendix I.



Figure 22.

Active stakeholders involved in the redevelopment of M4H, based on the property analysis as shown in Appendix III.



#### 4.4.4 Iconic status

In the retrospective cases, a selection of projects have been tested against the conditions imposed for a project to be iconic. These conditions have been provided with certain requirements, as previously shown in Table 12 (§3.5), to assess their presence. As a result, the iconic projects on the Wilhelminapier and Katenrecht have been defined. Since the redevelopment of M4H is still in its infancy, looking at mostly ongoing or future project developments that may become iconic is not yet relevant. However, research has been done into the current functions, architectural and socio-cultural values, its identity, catalysing spinoffs and the public discussion in §4.4.4, substantiated by the interview results.

#### 4.4.4 Findings from practice

The content of this paragraph derives from information obtained from interviews with project developers and managers involved in project developments at M4H. The list of the interviewees for this case can be found in Table 19. The case study findings will be used to answer the following subquestion: *“How could the conditions of iconic projects that incentivised (re)developments in the retrospective case study brownfields be implemented in redevelopment strategy of the prospective brownfield?”* These findings will be used to draw conclusions in §6.1.

**Note:** Reference will be made to the interviewees as follows: (Function, Organisation).

Table 19.  
Interviewees  
Merwe-Vier-  
havens.

Director Development, Stichting Droom en Daad (SDD)		(2.4 in interview analysis)
Function	Director Development	
Organisation	Stichting Droom en Daad	
Projects	Landverhuizersmuseum	
Director Urban Development, Municipality of Rotterdam (MoR)		(Appendix IX)
Function	Director Urban Development	
Organisation	Municipality of Rotterdam	
Projects	/ Throughout the whole city	

#### Iconic projects in Merwe-Vierhavens

As mentioned in §4.4.3, looking for projects that may become iconic is not relevant in this case, as this is a prospective case study and thus its redevelopment is still in its infancy. Moreover, iconic states could not be well substantiated yet, as the majority of projects is still in development (see Appendix I). However, based on findings from practice accompanied by the document study, certainly a number of projects on M4H could be selected to potentially become iconic. These are briefly addressed below, based on Appendix I. An impression of these projects can be found in Appendix II.

- 1) **Europointtorens.** The transformation of the towers is considered the largest transformation project within the Netherlands (CityPads & tB3 Investments, 2017).
- 2) **Ferro Factory.** This old enamel factory will be redeveloped into a nightclub but with a lot to experience during the day as well. Eventhough the last plans have had some stag-nations, it has the potential to bring life into the area by attracting many people at any time during the day.
- 3) **HaKa gebouw.** It has been built in Nieuwe Zakelijkheid style, a Dutch period of modernist architecture, in 1932. It has been declared a national monument because of its architectural and cultural-historical value as well as its structural and innovative value. Moreover, its situational value is of importance because of the striking location in the Vierhaven area in association with the original function: a grain silo and garage. These values also support its iconic potential.
- 4) **Keilepand.** The former wholesale office with working places and silo's has been redeveloped into flexible offices spaces where currently five architecture firms are housed. Its façade has remained intact as much as possible. The interior contains the historical shell spaces and the long sight lines make the development unique and outstanding.
- 5) **Katoenveem.** This warehouse constructed in reinforced concrete that contains one high building layer is located in M4H and declared a national monument as well. It is considered to be of general interest because of both its cultural- and architectural-historical value and its typological value. Atelier Lieshout is now housed in Katoenveem, however, right now plans are being made to transform this former warehouse into an exhibition space for culture that is specifically made for that location by SSD: *“Daar zouden we graag een tentoonstellingsruimte maken voor cultuur wat specifiek eenmalig voor die plek ge*



*maakt wordt. Wat misschien wel de wereld over reist, maar wat op die plek gericht is. (...) Wij denken ook dat dat goed past bij de gebiedsontwikkeling daar. Dus dat je iets maakt waar mensen graag naartoe willen, dus echt een publiekstrekker.”* (Director Development, SDD, 2019). The interviewee thus expects this development to function as a public-attracting catalyst (Director Development SDD, 2019).

- 6) **Floating Farm.** In this project, a unique and innovative way of food production is deployed. Fresh milk is produced locally and processed into dairy products. This provides locally produced products to the citizens of Rotterdam. The decision for the farm to operate on the water was made as fertile land is becoming increasingly scarce due to salinisation, erosion and depletion of soil, but also due to the urbanization trend which requires a climate adaptive system in order to continue feeding the city.
- 7) **Dutch Windwheel.** Eventhough its exact location in M4H has not even been decided, the Dutch Windwheel is considered a unique landmark of Rotterdam already, making the skyline even more spectacular. It generates energy while housing commercial functions and providing a panoramic view over the city. It is moreover considered to be the sustainable icon of the future, as it applies many technological innovations and could function as a game changer for sustainable development.

Striking is that the first five aforementioned projects are all transformation projects of old working places or offices. These are mostly transformed into event spaces or work places, but also offices and even residencies. The latter two projects are new constructions and at the same time highly innovative projects with a focus on contributing to a sustainable environment.

These contrasts represent the character of the old harbour area very well. On the one hand, old port-related buildings that represent the history of the area are remained, transformed and given a new function. On the other hand, room is provided for modern and highly innovative constructions. The director Urban Developments from the Municipality of Rotterdam even considered contrasts in the city to be one of the most important factors of successful areas: *“(…) en contrast is superbelangrijk. Niet alles moet dus hetzelfde zijn. (...) Wat je wilt, en wat ik zei dat de stad aantrekkelijk maakt, zijn natuurlijk contrast en verschillen. (...) Juist die kleinschaligheid versus grootschaligheid en oud versus nieuw, die contrasten, dat maakt dit gebied super leuk.”* (Director Urban Developments, MoR, 2019).

Next to the aforementioned projects, many other development plans are being made for M4H. For instance by artists Joep van Lieshout, who currently has his atelier in Katoenveem. He thinks M4H will become a huge amusement park, where art, living, both serious and non-serious developments and activities go hand in hand. He has got plans to develop a museum, hotel, restaurants and residences and, his ultimate goal, one big installation where people could both eat, sleep and amuse: *“We hebben plannen voor de bouw van een groot museum, een hotel, een restaurant en woningen. Echt behoorlijk groots ja. (...) Het uiteindelijke doel is één grote installatie te maken van duizenden vierkante meters. Het wordt een installatie waarin mensen ook kunnen slapen en eten. De bouwwerken zijn grote beelden, enorme kunstwerken. En in die kunstwerken zitten weer kleine kunstwerken en kamers en keukens.”* Artist Joep van Lieshout in Berkelder (2018, January 27).

### Catalysing projects in Merwe-Vierhavens

In the former two cases, multiple projects could have been designated that function as a catalyst for surrounding projects. For the area redevelopment of this case, however, it can not be said that it has been catalysed, considering the many development plans that have not even been realised yet (Appendix I). Looking at the interview results, the timing is not there yet to think or talk about catalysing projects. The Director Development of SSD thinks that there truly is missing a team at the MoR that gets the initiatives started and subsequent streamlines the developments of these projects: *“Wat het grootste probleem is op dit moment, is dat als de gemeente er niet voor gaat zorgen dat ze in de handelstand komen, dan wordt het niks. (...) Dus het is vooral van belang dat je een organisatie neerzet die in staat is om al die meters uit te geven, dat zijn er best heel veel. Dus ik denk dat dat cruciaal is, dat dat het verschil gaat maken.”* (Director Development, SDD, 2019). The area development thus still is in its infancy and the role of a catalyst has not yet been fulfilled.

However, there certainly are some projects already that contributed to putting the area on the map, such as het Dakpark located at the east of the Vierhavensstraat (right outside the case study area, see Appendix III): *“Je ziet nu Merwe-Vierhavens veel sterker worden, met name vanwege het Dakpark project wat de transitie van het gebied een enorme boost heeft gegeven.”* (Director Urban Development, MoR, 2019). Creative place-makers such as the atelier of Daan Roosegaarde (one of Dutch most famous designers and artists) and the establishment of multiple architecture firms,



contributed to increasing the attractiveness of the area too: “(...) *Daan Roosegaarde en bekende architectenbureaus schuiven die kant op. Dat is altijd goed, want de creatieve industrie stimuleert altijd innovatie.*” (Director Urban Development, MoR, 2019). According to the Director of Urban Development, these creative businesses incentivise innovations, one of the focus points within the vision of the area redevelopment.

### Implementation of conditions to incentivise (re)developments

Thus, next to having a team that can streamline this large and complex area redevelopment, certain incentivising conditions of the iconic projects in the retrospective cases could be strategically deployed in order to catalyse (re)developments in M4H too. These include the following conditions:



#### Functional characteristics

The incentivising effect of functional characteristics of iconic projects differ for the Wilhelminapier and Katendrecht. For the Wilhelminapier, having a function that is publicly accessible is considered a significant, influential condition that contributes to incentivising developers to (re)develop, while for Katendrecht these are more social and commercial facilities such as a school, church or a day-care. These directly attracted new residents, what indirectly attracted new developments. In order to stimulate the development of the future vision ‘M4H as a city oasis’, which aims for communities that like to live, work and produce together in a cordial environment, the advice with regard to function is to develop such social facilities. However, in the future vision ‘M4H as a free state’, the focus is more on rough production and pioneers in a ferocious environment. In order to stimulate the development of this future vision, creative, publicly accessible functions that both devise and make innovative products should be developed, especially since risky experiments are explicitly permitted in M4H.



#### Location

In order to prevent the development of cathedrals in the desert, one should always build upon what is there already in area. The location of M4H has many plots and properties that have the potential to be redeveloped. In addition, an interesting story behind the location provides for sociocultural characteristics which can contribute to incentivising developments too. Also, M4H is located relatively close to the city centre of Rotterdam which could contribute to a successful area redevelopment. And even though metro station Marconiplein provides good access to the area, one should take into account that the natural inflow of people in the area differs per locations within the M4H area. This has to do with the scale of the area. The Wilhelminapier, for instance, has a surface of 11,4 ha. while the surface of the M4H area is more than 13 times as large: 150,0 ha. The accessibility of the specific plots and thereby the access of the whole area to the rest of the city thus should be taken into account as well. The municipality is also deliberately working on this in M4H: “*Wij als overheid zullen de infrastructuur moeten doen, niet wachten met bruggen, nieuwe wegen, verlichting, riolering en internetverbindingen.*” (Director Urban Development, MoR, 2019). If it is well connected, the location of the M4H in general provides for incentives for (re)developments.



#### Physical characteristics

Attractive physical characteristics of iconic projects contribute to their own image as well as the image of the larger area. In some cases the physical appearance of the whole area is a more important incentive to (re)develop rather than the physical appearance of one project in particular, which for instance was the case in Katendrecht. Still, the physical appearance of individual projects was much appreciated. In particular the features that reflect the cultural-historical value of the area, mainly visible by the old harbour buildings. M4H has got several sheds, former warehouses and working places with physical characteristics that refer to the history of the area (Appendix II). In addition, the M4H vision states the importance of building on present qualities and potentials (Drift et al., 2011). The existing physical characteristics that visualise the historical features of the harbour area are therefore considered an incentivising condition that could catalyse (re)developments in M4H. In the former cases, however, the physical appearance of the area as a whole appeared to be most important.



#### Sociocultural characteristics

As briefly mentioned above, sociocultural characteristics and specifically historical characteristics could function as a major incentive for project developers to develop, like they did at the Wilhelminapier. On Katendrecht, these characteristics mainly functioned as meaning creating and history calling catalysts. These catalysts could, albeit indirect, function as a trust gaining catalyst too since the interest of citizens makes it more interesting and attractive for project developers to develop as



well. M4H flourished as a fruit port until the mid-1990s. However, the sociocultural characteristics on Katendrecht referring to its emigrant history perhaps appeal more as this phenomenon is something of all times. Migration is indispensable to human histories, cultures and civilizations and therefore is considered highly narrative. Referring to its activities as a fruit port, this is less evident at the M4H history. Therefore the conclusion is drawn very carefully that the use of these characteristics is a condition that could incentivise project developments. Moreover, it has most potential when realising the 'M4H as a city oasis' scenario, since this focusses on creating a living environment and attracting residents rather than business activities.



### **Uniqueness and innovativeness**

On the Wilhelminapier and Katendrecht, the uniqueness of projects has derived from other qualities, e.g. imago or functional, physical or sociocultural characteristics, and the innovativeness of projects did not play a demonstrably incentivising role. Therefore, these conditions were not explicitly called incentivising. However, the aim of the 'M4H as a free state' future scenario is to become the center of innovative manufacturing ("*brandpunt van de innovatieve maakindustrie*" in M4H & RDM (2017, p. 2)). Moreover, the objectives for the M4H development are to become an open innovation environment that attracts innovative business activities (M4H & RDM, 2017, p. 4). As a consequence, this condition can not be skipped. Mainly unique and innovative businesses should be attracted, in order to create this innovative manufacturing environment. However, again, this condition mainly derives from another condition, which in this case are the functional characteristics.



### **Development process**

Looking back, no (re)development processes of iconic projects have demonstrably incentivised project developers to (re)develop both on the Wilhelminapier and on Katendrecht. Looking at ongoing development processes, project developers on Katendrecht addressed that the processes are taken into account in order to estimate whether the project will positively contribute to the image and branding of the area. If that is the case, the development process had the ability to incentivise them to (re)develop. The current development processes of successful and potential iconic projects on M4H could thus incentivise project developers. It is important for the redevelopment team of M4H to take this into consideration and to, for instance, see this as an opportunity to attract developers.

Implementation of conditions to incentivise (re)developments do not include the following:



### **Scale**

Providing incentives through the scale of a project appeared to be doubtful as the perspective of the municipality towards scale truly differs from the perspective of one of the initiators. Artist Joep van Lieshout has in mind to develop buildings of about 18 floors: "*Het worden gebouwen van zeventig meter hoog, van achttien verdiepingen ofzo.*" (Berkelder, 2018, January 27) while the director Urban Development of MoR advocates for no high-rise buildings as these do not fit the size and scale of the area: "*Het idee is zeker niet om daar alleen maar hoge torens neer te gaan zetten. In onze hoogbouwvisie voor de stad is dat niet de plek waar we erg zullen inzetten op heel veel hoogbouw. Dan moet je toch de maat en de schaal aanhouden die past bij de directe omgeving.*" (Director Urban Development, MoR, 2019).



### **Image**

Short- to medium-term committed development companies that for instance focus on niche products, either make use of the present project(s) that provide identity or they provide such projects themselves. Long-term committed development companies rather look for yet an attractive image and existing qualities in the development area. Image could thus not only be an incentive to (re)develop, even a prerequisite. In the former case studies, the image of certain individual projects did not demonstrably incentivise project developers and thus can not be advised. However, the image of M4H as a whole, with the proviso that it complies with reality (don't lie, don't deny), could. Image thus is an influential condition that contributes to incentivising developers to (re)develop, however not on building level but on areal level.



For the following condition, no statement could be made with regard to its implementation in order to incentivise (re)developments:



### *Fame of the architect*

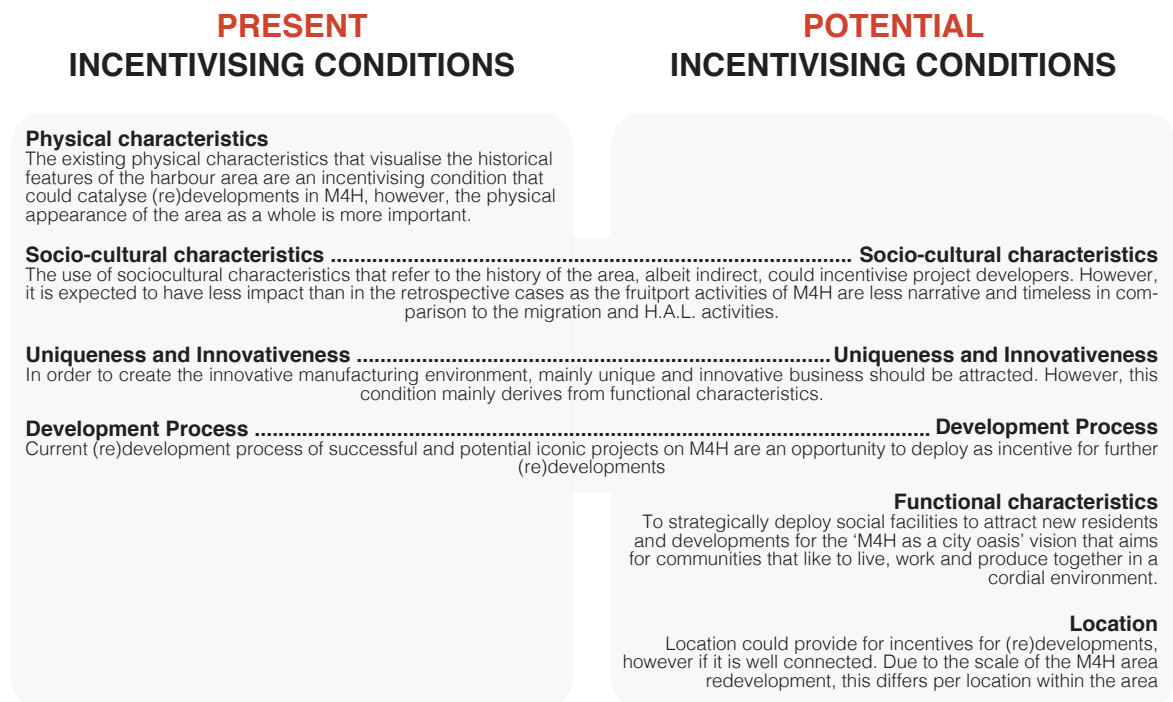
The deployment of starchitects has been considered a condition that plays a role in incentivising developments on the Wilhelminapier, however on urban level and not so much on project level. On Katendrecht, the influence could not be determined. Therefore, an advice on whether or not to implement this condition on M4H in order to incentivise (re)developments could not be provided.

### Summary

The in-depth case analysis resulted in an understanding of the conditions of iconic buildings that could incentivise project developers to (re)develop in M4H. Those conditions were described in the analysis as either tangible or intangible parameters. Although the results have been described in text before, figure 23 illustrates these results in order to provide a clear and final overview. In this figure, the conditions of iconic projects on M4H that can incentivise developers to (re)develop together and how they could be implemented, are presented in a spectrum of present incentivising conditions, potentials for incentivising conditions and present conditions that have got more potential. This spectrum will function as a foundation for the cross-case analysis and will be used to give answer to the final subquestion.

Figure 23.

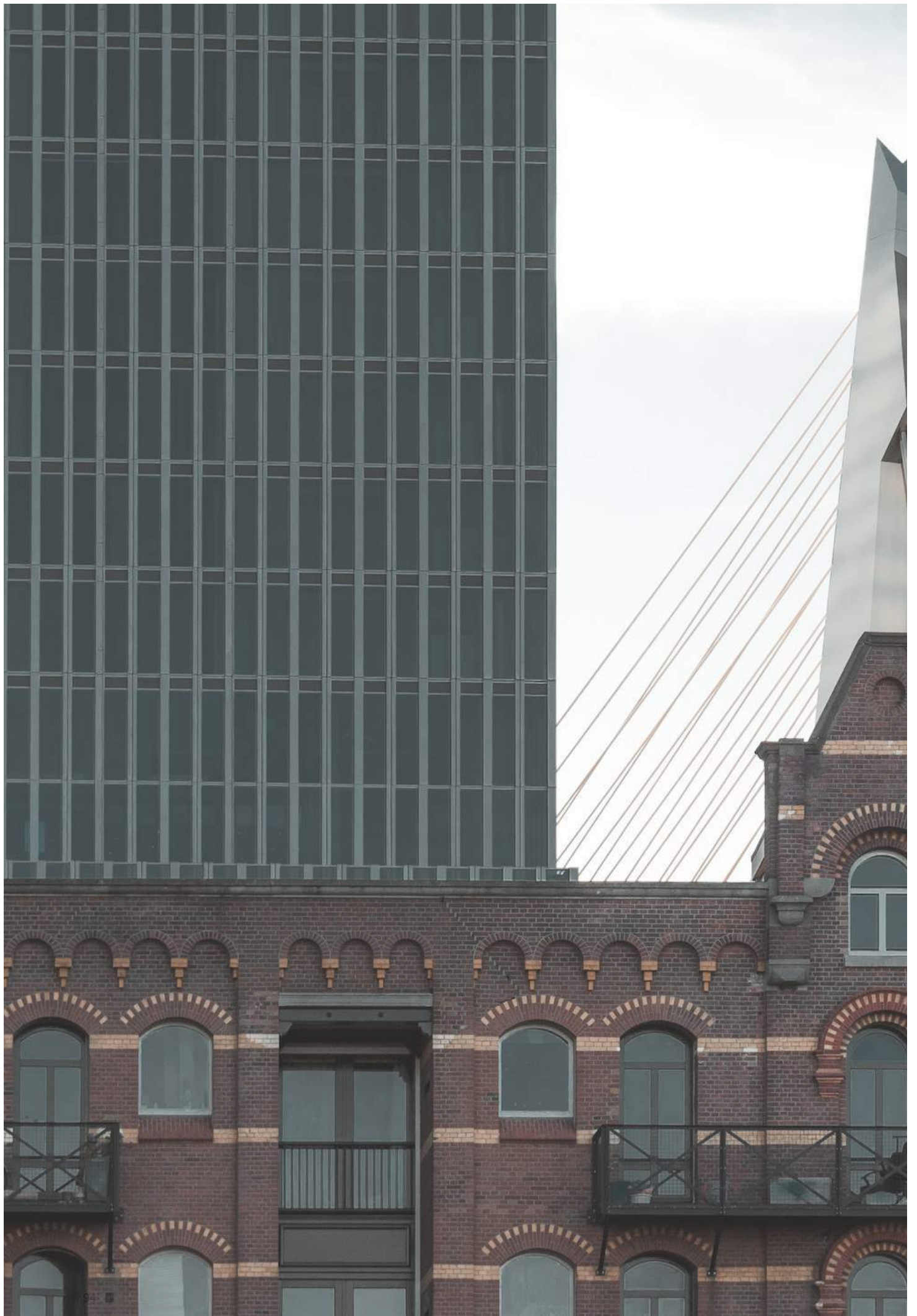
An overview of the conditions of iconic projects in M4H that could incite project developers to develop.













The background of the page is a photograph of a city street. On the left, there is a historic brick building with arched windows and a dark metal balcony. To the right, a modern building with a light-colored, textured facade and a grid of windows rises. A dark, angular structure, possibly a sculpture or part of a building, is visible in the upper left. The sky is overcast.

## SECTION V

### synthesis

*Concluding the research by analysing and evaluating the theoretical and empirical research results and exploring implications for practice in order to stimulate brownfield redevelopments by the use of iconic projects.*

#### **5. Synthesis and analysis**

##### **5.1 Cross-case analysis**

5.1.1 Cross-case analysis

5.1.2 Lessons learned cross-case analysis

##### **5.2 Evaluation of the preliminary conclusions by externals**

5.2.1 Goal

5.2.2 Approach

5.2.3 Results

5.2.4 Lessons learned

#### **6. Conclusions**

#### **7. Discussion and recommendations**

##### **7.1 Evaluation of conclusions by internals**

##### **7.2 Discussion**

##### **7.3 Implications for contemporary and future brownfield redevelopments**

##### **7.4 Limitations**

##### **7.5 Validity and reliability**

##### **7.6 Recommendations for further research**

#### **8. Reflection**

##### **8.1 Position of research**

##### **8.2 Relevance**

##### **8.3 Methodology**



# 05

## Synthesis and analysis

Both the literature study and the case studies gave insights into the influence of iconic projects on brownfield transformations. In order to create an overview of the lessons learned, this chapter examines the research results. Therefore, a cross-case analysis will be carried out first, after which the results will be summarised in concrete lessons learned. These are then used as input for the expert panel, who will evaluate them in order to validate the results and to get input for recommendations of the research by means of a discussion. The results of this session have been documented in the form of lessons learned as well, which can be found in §5.2.4.

### 5.1 Cross-case analysis

The first sub-paragraph provides the cross-case analysis by comparing the case study results and looking for the similarities and differences. The subsequent sub-paragraph summarises the cross-case analysis in lessons learned from the research so far in §5.1.2.

#### 5.1.1 Cross-case analysis

In order to conduct the cross-case analysis, the comparability of the Wilhelminapier, Katendrecht and M4H cases is assessed by stating their similarities and differences with regard to the subjects covered in the case studies.

##### Location and history

The Wilhelminapier and Katendrecht are peninsulas located on the south bank of the Maas river and M4H is located on the north bank of the Maas, more towards the west of the city. All case study locations are (former) harbour areas that have slowly lost their original function and subsequently became partly underutilised and abandoned. In the 1950s and 1960s, The Wilhelminakade was quite busy as the HAL activities and Dutch migrants departing to countries such as America, Canada and Australia. In the 1970s, Katendrecht had around 120 brothels and a highly negative image, and as a consequence, it was designated as an urban renewal area.

M4H flourished as a fruit port until the mid-1990s. However, they deteriorated one by one as the HAL moved to America (Wilhelminapier case), as there many social problems, a high unemployment rate and low safety feeling (Katendrecht case) and as the fruit trade moved to container terminals elsewhere in the port due to the rise of reefers (M4H case). Because of the favourable locations of all case studies close to the city center of Rotterdam, there are being redeveloped into mixed living and working areas. Looking at the order and process of the three brownfield redevelopments, it becomes clear that the locations closest to the city center are first to be redeveloped (so the Wilhelminapier first, followed by Katendrecht and M4H).

**Similarities:** all (former) harbours; close to the city center; transformed from dynamic to abandoned areas

**Differences:** Wilhelminapier and Katendrecht on the south bank of the Maas and M4H on the north bank; M4H still active as harbour area, Wilhelminapier and Katendrecht barely

##### Redevelopment vision

The objective of the municipality for the Wilhelminapier was to transform the Kop van Zuid into an attractive and vibrant urban area by satisfying the demand of a service orientated location and through stimulating the economy and reducing unemployment using an urban plan provided by the municipality. This partly complies with the goal of the development vision for Katendrecht, which was to transform Katendrecht into a neighbourhood that on the one hand has an urban character, but on the other hand has a lot of greenery where families and seniors, as well as artists and young potentials can settle. Mainly through large-scale renovations and providing lots of new program: 1.3000 new homes and 13.000 m<sup>2</sup> for facilities, businesses and offices, realised by a collaboration between the municipality, Woonstad Rotterdam and Proper Stok/Heijmans. M4H will become an



international pilot area for innovative energy supply and water management, ideally containing of a combination of two future scenarios: M4H as city oasis and M4H as free state. The redevelopment of M4H has no completed urban plan that determines or limits development plans.

- Similarities:** their focus on stimulating the economy through either service-economy (Wilhelminapier case), culture, creative and culinary facilities (Katendrecht case) and manufacturing (M4H case)
- Differences:** clear vision and urban plan for Wilhelminapier provided by the municipality (top-down); clear vision for Katendrecht provided by the municipality, Woonstad Rotterdam and Proper Stok/Heijmans and gradual emergence of an urban plan (top-down and bottom-up); clear scenarios and vision for M4H but no concrete urban plan (bottom-up); M4H has no focus yet on developing housing

### Redevelopment process

The municipality of Rotterdam had a very favourable position on the Wilhelminapier, as they owned all the land which gave them full control and enabled them to actively conduct their land policy. The developments of the Wilhelminapier started with the transformation of a number of historic buildings on the Wilhelminapier, of which the first was Hotel New York in 1993. Also, big investments in infrastructure were made before the land was sold. Thereafter, many developments followed. First, apartment buildings by housing corporations and only then, privately financed office buildings followed but often jointly by businesses and government. Currently, only three plots are left undeveloped. The first attempt to revitalise Katendrecht failed due to pressure from a declining market in 2002 and a poor area campaign that did not hit the right chord. As a result, the municipality quit the large-scale acquisitions of land as the projects simply did not get off the ground. In the second attempt, the municipality, Proper Stok and Woonstad designed an integral development vision for Katendrecht in 2005. Despite the fact that the crisis has led to considerable delays, the campaign 'Kun jij de Kaap aan?' brought wide attention to developments and eventually welcomed many new residents to de Kaap. A lot has happened, however the transformation of Katendrecht is certainly not over yet. Most developments are now planned or executed in het Polsgebied. In the area redevelopment of M4H, the focus is on the organic development of the area. The developments are both phased, planned and spontaneous where constant room is provided for adaptations to new initiatives. Since the area is so big (13 times as large as the Wilhelminapier), the development works in scenario's and subareas. Currently, the focus is on investing in innovative ways of living, slow-traffic connections and in the quality of the public space. Bottom-up control dominates in the free state vision, on which the focus is on now. However, not all initiatives could be addressed as there simply is not a team that is able to handle and streamline all these initiatives, which could lead to drop-outs. On the contrary to Katendrecht and the Wilhelminapier. These redevelopment were led by highly experienced teams that were able to deal with all interested parties. After 2025, more investments will be made into housing, facilities and accessibility in M4H as the focus then shifted more towards the city oasis vision. Top-down control is then more dominant.

- Similarities:** High pre-investments by the municipality on the Wilhelminapier and Katendrecht; Wilhelminapier and Katendrecht are highly integral area developments; highly experienced and capable team in Wilhelminapier and Katendrecht
- Differences:** M4H area development is organic and has no urban plan; M4H area development contains of three clearly different phases containing different forms of control; First attempt of revitalising Katendrecht failed; Missing experienced team in M4H that could handle all the bottom-up initiatives that the vision stimulates

### Iconic status

According to both the iconic assessment and the perception of the interviewees, the Wilhelminapier has many iconic projects, e.g. De Rotterdam, Erasmusbrug, Hotel New York, New Orleans as well as the whole urban ensemble. They have all been supported by public investments and either function as a physical connector in the area or contain (at least) a commercial function. Moreover, many other projects ticked a large part of the requirements that have been set for the four conditions of iconic projects. Both the Erasmusbrug and the high-rise buildings together now create a skyline, which in itself became a true icon of the city. Instead of old harbour properties from the HAL, the Wilhelminapier is now full of high-rise apartment buildings where prosperous people are living here in beautiful, modern environment. Also Katendrecht has many iconic projects, e.g. Fenix Loodsen, Pakhuis Santos, Rijnhavenbrug and ss Rotterdam. However, these iconic projects contain different characteristics compared to the Wilhelminapier. Their functional and physical characteristics are more related to the history of the area and the appointed iconic projects consist of



mostly transformations rather than new constructions. The radical transformation of the neighbourhood results in an interesting mix of old and new and has a very different atmosphere compared to the Wilhelminapier. The case study of M4H is of prospective nature as its redevelopment is still in its infancy. Iconic projects could therefore not be well substantiated yet: the majority of projects is still in development. However, several projects such as the Floating Farm and the Dutch Windwheel definitely have the potential to become iconic. These iconic projects also contain different characteristics compared to the Wilhelminapier and Katendrecht. In particular their innovativeness and uniqueness with regard to technology and sustainable, climate adaptive developments provide them with the potential to become an future icon.

<b>Similarities:</b>	all case study locations contain relatively many (potential) iconic projects
<b>Differences:</b>	iconic status of projects derives from different characteristics on each case study location

### Initiations

The majority of the most influential iconic project developments on the Wilhelminapier have been supported by public investments, while half of the most influential iconic projects on Katendrecht come from private investments and the other half from joint commissioning. The latter, in this context, it is particularly important to mention as that primarily is the result of a commitment between the municipality, Woonstad Rotterdam and Heijmans. They laid the foundation for the developments that followed. At this moment in the M4H redevelopment, mainly a bottom-up strategy is executed. The municipality creates ambitious frameworks that is supposed to provide financial, legal, organisational and mental space, with which they try to stimulate bottom-up initiatives.

<b>Similarities:</b>	within the Wilhelminapier and Katendrecht redevelopments, the municipality had a dominant and active role in the redevelopment plans
<b>Differences:</b>	within the M4H redvelopment, the municipality is less active as they initiate less compared to the redevelopment of Wilhelminapier and Katendrecht

### Iconic projects as a catalyst: most incentivising conditions

Most incentivising conditions of the iconic projects on all case studies are their functional and sociocultural characteristics. The functional characteristics on the Wilhelminapier mainly incentivise since their functions are innovative and special that attract people, but most importantly because they all are publicly accessible. On Katendrecht, the programming of basic facilities has been more appealing, as that attracted new residents and as a consequence more developments. Functional characteristics thus certainly contribute to incentivising (re)developments, however, all in their own way. As a consequence, the advice for M4H for incentivising developments is to add creative and publicly accessible functions that both devise and make innovative products, in line with its vision to become a makersdistrict.

The socio-cultural characteristics on the Wilhelminapier demonstrably incentivised (re)developments too, in particular the emigrant history of the area that provides character and identity. Such identity is highly appreciated by both users and developers and moreover considered important by project developers for the financial ambitions of their surrounding projects. The same holds for Katendrecht, where the socio-cultural incentivising conditions mainly referred to the history of the area too. Therefore, the use of its historical character in M4H is considered a condition that could incentivise project developments too. However, this is very carefully drawn as the characteristics referring to the emigrant history perhaps appeals more to people rather than the history that refers to the old fruit port: migration is a phenomenon indispensable to human histories, cultures, and civilizations and thus highly narrative. Moreover, the sociocultural characteristics have more potential to be incentivising when realising the 'M4H as a city oasis' scenario rather than realising the 'M4H as a free state' scenario, since this focusses on creating a living environment and attracting residents rather than business activities.

<b>Similarities:</b>	all case study locations have attractive sociocultural characteristics that are visibly referring to the history of the area; the functions of the iconic projects on all case study locations have demonstrably contributed to incentivising developers
<b>Differences:</b>	the Wilhelminapier and Katendrecht have a more narrative and imaginative history compared to M4H which is considered more appealing and incentivising

### Iconic projects as a catalyst: mediocre incentivising conditions

The aforementioned most incentivising conditions are followed by the location and image of the ico-



nic projects that have incentivised (re)developments too. The location of individual iconic projects on the Wilhelminapier has incentivised project developments simply because their plot has a view on the iconic project, or because the location of their plot is unique and attractive within the city (e.g. the location of De Rotterdam next to the iconic Erasmusbrug, at the quay and visible from many sides of the city). The view on one of the iconic projects has even appeared to be decisive for one of the project developments on the pier. On Katendrecht, the location appeared to be incentivising on the larger scale mostly. The location of the brownfield as a whole and in particular its access to the rest of the city have demonstrably incentivised developments. With regards to the M4H area redevelopment, the location of iconic projects is an important condition that could be incentivising developments there too. Due to the scale of the area development, however, the main condition for functioning as an incentive in this phase is that it should be well connected, in particular to the city center. This differs per location within the area. The locational features that could incentivise projects on M4H are therefore more depending on their accessibility in this phase of the development.

The image of iconic projects on the Wilhelminapier incentivised project developers, however mainly developers that focus on the long-term and/or higher segment. They prefer a yet attractive image, while creative and niche developers are open to create an attractive image themselves in case that is still missing. On Katendrecht, the image of the iconic projects together, rather than individually, contribute to incentivising further developments. Thus not so much the image of certain individual projects demonstrably incentivised project developers and therefore, this can not be advised to the M4H area redevelopment. However, an attractive image of M4H as a whole, with the proviso that it complies with reality (don't lie, don't deny), could function as an incentive. Therefore, it is recommended to focus on the image on areal level rather than on the image on the level of an iconic project for the M4H area development.

- Similarities:** location is mainly incentivising if it is a unique and attractive plot within the city or makes the iconic project highly visible from many sides of the city for the Wilhelminapier and Katendrecht; the attractive image on areal level demonstrably incentivised developments rather than on project level in all cases
- Differences:** location is expected to be mainly incentivising if it is easily accessible for M4H

### **Iconic projects as a catalyst: least incentivising conditions**

Least incentivising conditions of iconic projects are the development process, scale, fame of the architect and the physical characteristics of the iconic project. In particular the latter is striking, as the physical appearance of an iconic project could function as a trademark for the area or even the city. Nevertheless, the physical appearance of the Wilhelminapier as a whole appeared to be more important. This, of course, is created by the physical appearances of all projects together. Moreover, the idea to catalyse (re)developments stems from the situation where the brownfield is not yet attractive enough to develop, but that it is indeed important that redevelopments are set in motion. As a consequence, the condition of having an attractive physical appearance on areal level in that phase of the area redevelopment is unrealistic. What became clear on project level at both the Wilhelminapier and Katendrecht, was that physical characteristics that visualise the intangible historical features of the area contributed to the attractiveness to develop. M4H has got several sheds, former warehouses and working places with physical characteristics that refer to the history of the area and its vision states the importance of building on present qualities and potentials. Therefore, it is recommended to deploy the existing physical characteristics that visualise the historical features of the harbour area as incentivising condition that could catalyse (re)developments.

With regard to the development process, no particular process have demonstrably incentivised project developers on the Wilhelminapier and Katendrecht. However, developers keep an eye on the process of ongoing projects in order to estimate whether the project will positively contribute to the image and branding of the area. If that is the case, the development process could incentivise project developers to (re)develop. Therefore, it is recommended to take this into consideration during the redevelopments at M4H and to actually see this as an opportunity to attract developers. With regard to the scale of iconic projects, the case studies confirmed that not the tangible and physical characteristics of large-scaled iconic projects, but the common spillover effect of bringing life into an area incentives project developers to (re)develop. This spillover, however, is not necessarily caused by scale: the project's function often contributes to that a lot as well. Scale could thus not be demonstrated and recommended as an incentivising condition of iconic projects.

With regard to the fame of the architect of the iconic project, no determinations could be made. On



the Wilhelminapier, the fame of the architect played a role in the high ambitions for the urban area and consequently its image. On urban level, it thus played a role in incentivising developments. On Katendrecht, it can not be determined whether or not fame of the architect contributes to incentivising developers to (re)develop at this moment since too little architect has been designed by startchitects. An recommendation on whether or not to implement this condition on M4H could as a consequence not be provided.

<b>Similarities:</b>	physical characteristics that refer to the history of area (are expected to) incentivise in all cases; successful development processes could incentivise developments, however this could not explicitly be demonstrated with an example; the scale of iconic projects does not demonstrably incentivise developments;
<b>Differences:</b>	fame of the architects incentivised project developments on the Wilhelminapier, however on urban level and not demonstrably on project level, while on Katedrecht this could not be determined

There are thus many similarities between the brownfield redevelopments of the Wilhelminapier, Katendrecht and M4H with regard to their location and history, redevelopment vision and process, the iconic status, the initiators and the incentivising conditions of iconic projects. However, there are also a few important differences. These are likely to influence the extent to which certain condition of iconic project can incentive (re)developments and thus will be taken into account when drawing conclusions.

### 5.1.2 Lessons learned

From the cross-case analysis, lessons learned have derived with regard to the role that iconic projects but also the vision and development approach play in the browfield developments of the case studies, the conditions that have positively influenced the intention of real estate developers and how they have this abiltly. These will be briefly pointed out below.

- All case study areas are old harbour areas close to the city center that transformed from dynamic to abandoned areas and now aim to stimulate the economy with all three a different particular focus: Wilhelminapier: service-economy, Katendrecht: culture, creativity and culinair, M4H: manufacturing. As a consequence, the iconic status of all iconic projects derive from different qualities in each case study location.
- All case study areas have clearly different plans and levels of control by the municipality, ranging from very concrete plans and dominant control (Wilhelminapier), to joint public and private commissioning and controlling (Katendrecht), to no blueprint of the urban plan and hardly no restrictions (M4H).
- All case study areas aim for clearly different images and different scales: Wilhelminapier: focus on high-rise with international allure, Katendrecht: focus on strengthening the rough and tough image on national scale, M4H: focus on receiving an image as pilot area for innovative manufacturing on international scale.
- All case study locations have attractive sociocultural characteristics that are visibly referring to the history of the area, providing character and identity to the area which is highly appreciated by both users and developers.
- Physical characteristics that refer to the history of the area incentivise in all cases.
- The functions of the iconic projects on all case study locations have demonstrably contributed to incentivising project developers.
- The attractive image on areal level demonstrably incentivised developments rather than on project level in all cases.
- Most incentivising features of the location condition has more to do with its infrastructural accessibility rather than the location of the iconic project, eventhough the fact that a plots overlooks the iconic project could be incentivising developments on that plot too.
- No particular scale of iconic projects has demonstrably incentivised developments, however the spillover effect of large-scaled project, bringing life into an area, does contribute to the motive to develop.
- Fame of multiple architects incentivised project developments on the Wilhelminapier. The fame of one architect for a single project has not demonstrably worked as an incentive for project developers to (re)develop.



## 5.2 Evaluation of preliminary conclusions by externals

In addition to the results of the cross-case analysis, an evaluation panel has been organised on May 9<sup>th</sup> in cooperation with Brink Management / Advies. Such panels are usually deployed to acquire specialised input and opinions for an evaluation (Department of Sustainability and Environment, 2005, p. 36). Their main objective is to synthesise inputs in order to provide a vision or future recommendations for possibilities and needs in relation to the discussed issue (Slocum, 2005). Such recommendations could then be shared with decision making bodies or used to come up with well-founded advices (Department of Sustainability and Environment, 2005, p. 36). This paragraph will elaborate on the goal of this evaluation, the applied approach and the results. These results have been summarised in lessons learned in §5.2.4.

### 5.2.1 Goal

In this research, the main objective of the evaluation of the preliminary results is to assess the lessons learned from the case studies in order to validate the results and to get input for recommendations of the research. This has been deployed by means of a discussion, which was organised by presenting certain statements from the results of the case studies. This evaluation panel will contain urban development professionals from Brink Management / Advies who are extensively involved by the development of, and investments in, inner city building projects, of which many are/have been located in Rotterdam. The in-depth case studies will remain leading. The expert panel is deliberately made subordinate in order to ensure both the scientific and company's interests.

### 5.2.2 Approach

Before organising the meeting, the number of participants in the panel as well as their background must be considered (Remøy, Koppels, Van Oel & De Jonge, 2007). Considering this research, the panel should be competent with either inner-city brownfield developments or project developments on inner-city brownfield sites. Hence, the panel selection consists of consultants or managers from the department Development & Investments of Brink Management / Advies. The ten selected participants and their function can be found in Table 20.

Table 20.  
Panellist of  
the evaluation  
panel

Panellist	Function
	Senior Manager
	Consultant
	Senior Manager
	Senior Manager
	Consultant
	Senior Consultant
	Consultant
	Junior Consultant
	Senior Manager

The structure of the discussion is open, as this allows for a free and spontaneous discussion. First, the subject and the goal of the discussion will be introduced to the panellists by the researcher as well as background briefing information and ground rules for the panel (Department of Sustainability and Environment, 2005, p. 36). Then, a summary of the research will be provided, followed by the preliminary research results. The latter will be displayed by means of seven triggering statements to trigger the discussion. The presentation used to lead this session could be provided by the researcher on request.

### 5.2.3 Results

The statements that have been displayed to trigger a discussion about the conclusions and a summary of the positions that were consequently taken, are stated below.

1)

***Solely iconic projects with a publicly accessible or physical connecting function could influence further development decisions***

Realising public accessible buildings, according to the panel, does attract other functions. Vice versa, it is slightly more nuanced. Several factors influence the success of an area in the long-term,



however, this research is about successful preconditions specifically from the perspective of iconic projects. If the case studies showed that all catalysing projects were publically accessible or had a physical connecting function, this statement could be carefully drawn as a conclusion.

Looking at it the other way around, however, could invalidate it: naming iconic projects that are not publicly accessible or physical connecting. Examples discussed were the palaces of the Royal family: Paleis Noordeinde and Paleis Soestdijk were considered highly iconic, but they are certainly not publicly accessible. As a consequence, they have not been considered to be a catalyst for area developments, while the panel thinks they are, if they are publicly accessible, they maybe were. Then it gets a semi-public function and the surrounding area will be developed as well. Same holds for prisons, of which there are many in the Netherlands. They could be iconic in themselves, but they are not. Mainly since they are certainly not public. However, the Bijlmer Bajes now becomes a phenomenon as it will be publicly accessible by changing its function. As the same closed building makes the area unattractive, being public accessibility appeared to be essential. To put such an area (back) on the map, you need the presence of people that will experience that area again. Hence, one has to add publicly accessible functions in order to provide for a reason to go there. Notwithstanding these examples that support the statement, the panel agreed on the fact that this statement could be a valid conclusion when it is turned around: iconic projects incentivise developments when they have got a publicly accessible or physical connecting function.

These public and physical connecting conditions of iconic projects that incentivise project developments are therefore considered most important (one even suggested them being part of the definition for 'iconic projects'), however, it is nuanced as well due to the limited scope of the research.

2)

***The architectural quality of one project has more influence on further development decisions than the physical appearance of the entire brownfield***

First, it was rightly noticed that this research tries to determine the influence of only one factor on development decisions: the conditions of iconic projects, while perhaps fifteen other factors are of influence too. Those fifteen other factors influence the significance of this research and blur the image. By all means, the influence of these factors differ per context, thus per case. Subsequently, the question has been repeated more specific. Figurally speaking, the panellist were asked to assess two cases in a vacuum where all external factors are the same. What did they think had the most influence on their subsequent development decision: the brownfield consisting of one architectural masterpiece? Or the brownfield without architectural icon but consisting of an attractive architecture on urban level? Consequently, two different quantities were considered: 1) the architectural quality of a single project and 2) the physical appearance of an entire brownfield. It was concluded that the first contributes to the second.

The identity of an area will be put on the map when an iconic project is added, and in particular the identity improvement provides for incentives for developments. As a consequence, it might not matter that much whether that identity has been improved because of one iconic project, or not.

3)

***Not the scale of an iconic project in itself, but its (public-attracting) spillover has influence on further development decisions.***

Scale provides a public-attracting spillover, but it is not necessarily a precondition for development incentives. There certainly is a correlation between the scale and the spillover, however this depends on function too. Food halls and local breweries usually are not large in size, nevertheless public-attracting in the area. Not the spillover, but from which it could be derived is most important in this research. This could be derived from a large scale but, again, not necessarily.

Looking at the Markthal, the scale, among other things, makes the project unique. The same holds for the world's tallest building: the Burj Khalifa located in Dubai. This building is considered iconic mainly because of its huge scale, yet Rietveld Schröderhuis is considered iconic too and nothing but the size of a normal house.

Many people are interested in seeing and experience both projects. One therefore could not say that scale has no influence at all, neither can one say that it is a necessary precondition.

The condition on which this public-attracting spillover is based could be scale, however other conditions such as the functional characteristics often play a major role as well. Looking at the



applied definition for iconic projects (§1.7), where scale has not been mentioned but the catalysing spillover effect has been, this statement according to the panellists is a logical conclusion.

4)

***Projects without cultural-historical value or special architectural qualities can not function as a catalyst for further development decisions.***

After reading this statement out loud, the first response was a question in return: could we come up with projects that do not have cultural-historical values or special architectural qualities, but are functioning as a catalyst for further development decisions? One of the answers that was discussed was concert hall 'Ziggo Dome'. This project does not have cultural-historical value and moreover is designed as a simple box. Whether this project was found to be iconic, however, remained vague. The fact that cultural-historical values and special architectural qualities could contribute to incentivising project developments, was found true. The fact that projects without cultural-historical values or special architectural qualities could not incentivise project developments, like the statement, was invalidated. The panel was able to name a number of city halls and office buildings that functioned as a catalyst, but lacked cultural-historical value and architectural qualities.

All in all, most iconic projects that function as a catalyst for further (re)developments either have a cultural-historical value and/or special architectural qualities, however these conditions are not considered a must.

5)

***Iconic interventions are often deliberately deployed due to their catalysing function. Iconic interventions can only be used as a tool, when the infrastructure of the area is completely ready.***

Without a doubt, the area, more specifically the iconic intervention, must be accessible to at least a certain extent. If the icon is physically not accessible, its publicly accessible character will not pay off either (see statement 1). Iconic interventions must therefore at least be accessible to pedestrians.

One noticed that you could consume the outside of iconic projects. As a consequence, in case of considerably large-scaled projects, a physical connection will not be necessary: one could look at the project from afar, like you could for instance do at the Arc de Triomphe from its adjacent, kilometres long axis. The consequent argument however was that we just concluded in the first statement that iconic projects must be publicly accessible, in order to function as a catalyst for surrounding (re)developments. As a consequence, the claim of not needing infrastructure to access the iconic project has been refuted.

As iconic projects mostly contain publicly accessible functions, they must be at least be accessible to pedestrians. If the brownfield however is not yet sufficiently accessible, at least clear plans and decisions must have been made about the infrastructure have been made at the right level (e.g. by the municipality or NS) in order to be able to deploy iconic interventions as a tool for catalysing further (re)developments.

6)

***Just giving a (nick)name to a project confers identity and increases the chance to receive an iconic status.***

Many real estate objects in Rotterdam have got nicknames. These do not always benefit the project. This however is about the fact that it brings about something anyway: it provides project recognition. The project name could be provided by the developer, as a marketing tool, but it could arise from the environment as well. If the project lacks a name, it is simply hard to market the project. Naming the project can increase the chance of receiving getting an iconic status, however more could not be said about it.

Giving projects a name certainly does not hurt. This contributes to making the project more recognisable and makes it easier to become a subject of discussion. Whether it contributes to incentivising further area developments, could not be specified whatsoever.

→

***Is it possible to put the conditions that contribute to incentivising (re)developments in order of importance (if necessary subdivided into primary and secondary conditions)?***

The answer to this question was quite clear: no.



The one project needs less financial investments to make it physical accessible than the other. As a consequence, there is more financial room for, for instance, a well-known architect. The other project may need more financial investments to make it physical accessible. As a result, one will e.g. realise a different program to counter this. Each brownfield has other interests as well as other concerns. One can not list a standard number of conditions of iconic projects necessary to successfully catalyse brownfield redevelopments.

#### 5.2.4 Lessons learned

The following lessons have been learned from the evaluation panel:

- Being publicly accessible or being a physical connector are the most important conditions for iconic projects to incentivise surrounding project (re)developments.
  - The identity of a brownfield is considered an important provider of incentives for developments, which does not necessarily needs to be provided by an iconic project.
  - The large scale of iconic projects can trigger surrounding (re)developments because of its public-attracting spillover, but it is certainly not a necessary precondition.
  - Most iconic projects that function as a catalyst for further (re)developments either have a cultural-historical value and/or special architectural qualities, these conditions however are not a must.
  - As iconic projects mostly contain publicly accessible functions, they must be at least be accessible to pedestrians.
  - If a brownfield is not yet sufficiently accessible, at least clear plans and decisions must have been made about the infrastructure have been made at the right level (e.g. by the municipality or NS) in order to be able to deploy iconic interventions as a tool for catalysing further (re)developments.
  - Giving iconic projects a name confers to their identity, whether positive or negative, but is not considered a condition that contributes to incetivising further area developments.
  - A list of preconditions necessary for iconic projects to successfully catalyse brownfield redevelopments can not be made, as each brownfield has different interests as well as other concerns.
- .....



# 06

## Conclusions

Chapter 6 provides the final conclusions of the research. In the first paragraph, the first subquestions will be answered based on literature review output. In the three subsequent paragraphs, the residual subquestions will be answered based on both theoretical and empirical research output. These answers, together with the empirical research output, will provide a basis for answering the main research question in the final paragraph, §6.5.

The main goal of this research is to gain better understanding about the conditions of iconic projects that could incentivise private real estate developers to (re)develop projects in brownfield areas. This provides for the opportunity to speed up inner-city redevelopments and to partially fill the gap in literature about the conditions of iconic projects that may affect private real estate developers' motives. To achieve this goal, it has been accompanied by four specific objectives. These four objectives have all been met, by answering their corresponding subquestions. These answers cover both the theoretical and practical views on the inciting role of iconic projects on surrounding (re)developments and the conditions from which this derives.

### 1) What does literature say about the catalysing effects of iconic projects and the motives of private real estate developers?

The first objective of this research is to gain understanding about the phenomenon of iconic projects inciting project developers to (re)develop, in order to provide a critical overview of state-of-the-art literature on the main research concepts. The corresponding subquestion therefore is about the catalysing effects of iconic projects and the motives of private real estate developers. The answer could be given based on the literature review. This answer subsequently functions as a foundation for the empirical research as it operationalizes the conceptual model and provides for the main definitions and fundamental theories.

Any special object that attracts people, draws their attention and surpasses the everyday can in principle be encountered iconic. The degree of iconic value, however, differs regarding intensity, support base and sustainability as such objects are not iconic forever and for everyone (Verheul, 2012). For it to reflect the zeitgeist while surviving political changes, economic instability and human taste, it needs lasting qualities (Maschayk, 2015). As regards to objects in the urban environment that have an iconic value, many concepts have been used in literature. The definition of the concept **flagship** focuses on the initial intention: projects are flagships when they are located in or near an area that is under development and its intention was to give that area a boost (Claassen, Daamen and Zaadnoordijk, 2012). The concept of **icons** has similarities but is not identical, as there is more emphasis on the understanding and the contribution of the general public to the debate about the (aesthetic, symbolic and historical) qualities that make certain projects iconic (Sklair, 2010, p.136). Zukin uses the concept of **trophy buildings** and puts emphasis on the aesthetic value: a more architectural approach to the iconic value of buildings (Maschaykh, 2015). Within this thesis, the concept of **iconic projects** is used: *“Projects that are considered high-profile and prestigious both by experts from the field (I) as by the general public (II), that provide a sense of uniqueness and identity to the environment (III) and function as a catalyst in the surrounding environment (IV)”*. A project must subsequently meet the conditions that are numbered within the definition, in order to be classified iconic.

Iconic projects can have many spillover effects, mainly with economical, physical and/or socio-cultural impact. As a consequence, the paradigm arose to deploy iconic projects in order to deliver a physical transformation (O'Donoghue, 2014). The intention of the project then, essentially, is to function as a catalyst for surrounding (re)developments. In short, iconic projects have the ability to catalyse surrounding physical urban redevelopments in two ways, based on Table 6:



**1) By being an economic driver for the surrounding area**

Through increasing demands in virtue of iconic projects, property values rise and the area becomes interesting for investors. As a consequence, conditions to find parties that are willing to invest in the residential and commercial property market in the brownfield area concerned are improving and property developers will anticipate on this by initiating (re)developments.

**2) By being a sociocultural driver for the surrounding area**

Iconic projects provide identity and add value to the area or even the city as they are high-profile and prestigious projects, often supported by their function and socio-cultural values. As a result of their added values and the identity they disseminate, the area gets more known and popular, subsequently will be more actively visited, attracts more tourism and therefore requires more facilities: thus (re)developments.

As almost two-thirds of the project developments in the Netherlands are initiated by professional private real estate developers, this research focusses on their motives specifically (Nozeman & Fokkema, 2008, p. 322). Several motives have been found for real estate developers to take the initiative to develop. Different motives could be assigned to different types of developers, depending on their focus (i.e. long-term or short-term, niche-product, personal/specific approach, ensure yields for their institutional investor/financiers). Their motive could arise when the housing needs of a property user has changed, when a property or (part of) an area becomes vacant, or because they see other (re)development opportunities after researching particular market segments (Nozeman & Fokkema, 2008, p.28-29). When no land position in the brownfield is yet obtained, the motives to (re)develop are always supported either by the fact that they believe they could offer the best price/quality ratio at a tender or development proposal, or because they think they could be the highest bidder for land. Despite many contextual differences between the many types of developers, their major motive, i.e. the belief that the project will make profit (which you could say is their primary *raison d'être*), is what they all have in common (Boyd & Chinyio, 2006). The main aim of real estate developers therefore is to create profitable developments with healthy business cases by obtaining maximum yield against a manageable risk level (Nozeman & Fokkema, 2008, p.42).

.....

**2) What role have iconic projects played in the brownfield area redevelopment of the retrospective case studies?**

The second objective of this research is to identify the role and influence of iconic projects in brownfield areas. Answer to the corresponding subquestion identifies this role by conducting research into the developments of the Wilhelminapier and Katendrecht. Next to catalysing surrounding developments, the main focus of this research, it is concluded that these iconic projects played an *attracting, proclaiming, connecting and thought-provoking* role in the redevelopments of these brownfield areas. This will be motivated by first aligning the definition of iconic projects used in this research with its interpretation in practice. Second, the iconic projects on the Wilhelminapier and Katendrecht according to practice will be appointed and motivated and consequently compared to the results of the iconic assessment method. Third, their catalysing role will be addressed more specifically, as that is what this research focusses upon in particular.

First, projects that have been considered iconic by the practitioners were fairly equal to the definition used in this research. According to the practitioners, such projects *move you*, whether you like it or whether you do not (Project Manager, MoR) (**thought-provoking**). They are not mediocre and make you feel connected to the project (Director Development, SDD; Project Developer, Synchroon) (**connecting**). In addition, a differentiation of two iconic project types has been encountered concerning the target group of their influence (Project Developer, Van Wijnen). Both have a different role in the redevelopment of an area: (1) Iconic projects *to the city*, rather *commercial icons*, add something to the signature of the city (**proclaiming**). (2) Iconic projects *to the people*, rather *social icons*, have the ability to make areas independent and economically decisive, where all types of residents can live happily together (**connecting**). The definition of iconic projects used in this research captures both types and roles.

Second, practically all projects on the Wilhelminapier and Katendrecht that have been appointed iconic by the iconic assessment method, have been found iconic in practice too. These projects exceed in many ways, their value is considered priceless and their iconic status is found evident (Project Manager, MoR; Project Developer, Molsbergen Development; Area Manager, BPD). The



iconic status of New Orleans on the Wilhelminapier has been up for discussion, as it was considered not interesting enough (Project Developer, Molsbergen Development; Area Manager, BPD). In addition, the concern about the temporality of iconic states was raised, in particular with regard to the ss Rotterdam (Director Development, SDD). Once an icon, always an icon proves not to be true. This again highlights the fact that some iconic states have only a limited expiration date. Next to these two doubts, only additional projects have been mentioned because of their appealing, attracting and catalysing character. Most importantly, Theater Walhalla, the Codrico factory and Fenix Loods I. The theatre, as this pioneer attracted many people to Katendrecht and positively influenced the image change of the peninsula (Urban Planner, MoR; Project Developer, Van Wijnen) (**attracting and proclaiming**). The former flour factory Codrico and historical Fenix Loods I as they both depict the much-appreciated history of the harbour area (Director Housing, Frame Vastgoed; Urban Planner, MoR) (**connecting and proclaiming**). The support base, intensity and sustainability of the iconic statuses differ per project and also overtime (Verheul, 2012). An important remark is therefore that the projects that have been appointed iconic now, might have a completely different status or role in the area development in ten years' time.

As regards to iconic projects catalysing other project developments, it can be concluded that actually *all iconic projects have had catalysing effects on the surrounding developments in their own way (catalysing)*. Hotel New York and the Rijnhavenbrug, however, unanimously launched the urban area redevelopment of respectively the Wilhelminapier and Katendrecht. Hotel New York, because of its incredibly beautiful *location* surrounded by lots of water with a unique view towards on city and the Maas, but most importantly since it is *attracting people* to the pier with its commercial functions since 1993 already (Project Manager, MoR; Project Developer, Molsbergen Development; Area Manager, BPD; Urban Development Supervisor, MoR; Project Developer, Synchroon; Director Urban Development, MoR) (**proclaiming and attracting**). The Rijnhavenbrug, as practice showed that the situation of Katendrecht before and after the Rijnhavenbrug significantly differed (Urban Planner, MoR; Director Housing, Frame Vastgoed): "*Wij merkten eigenlijk na de Rijnhavenbrug dat iedereen dacht van: nu kan het niet meer verkeerd gaan... 'Ja, nu is mijn investering hier zeker.'*" (Urban Planner, MoR) (**connecting and attracting**). The development truly functioned as a turning point. In this context, however, it is mainly important to mention *the commitment of the municipality, Woonstad Rotterdam and Heijmans* that laid the foundation for the developments that followed. Same holds for the Wilhelminapier, where it is particularly important to mention that the *municipality owns all the land*, which gave them full control and enabled them to actively conduct their land policy (Project Manager, MoR).

The iconic projects on the Wilhelminapier and Katendrecht thus not only had a catalysing role in the redevelopments of these brownfield areas, but attracting, proclaiming, connecting and thought-provoking as well.

### 3) What conditions of iconic projects in the retrospective case study areas have positively influenced the intention of real estate developers to develop in the related brownfield area?

The third objective of this research is to identify the conditions of iconic projects that have an incentivising influence on (re)development decisions in the surrounding area. Answer to the corresponding subquestion provides an overview of these incentivising conditions of iconic projects. The operationalisation of the conceptual model, based on the theoretical framework, has been leading to examine and answer this question. Furthermore, it has been complemented by the analysis of the semi-structured interviews with project developers and managers involved in (re)developments on the Wilhelminapier and Katendrecht (Appendices VI to IX).

The conceptual model operationalised the following conditions of iconic projects: *functional, sociocultural and physical characteristics, location, scale, image, fame of the architect, development process, uniqueness and innovativeness*. All these conditions have demonstrably positively influenced the intention of real estate developers to develop in the case study brownfield area (please go to the headings 'Tangible incentivising conditions' and 'Intangible incentivising conditions' in §4.2.5 and §4.3.5 to see how these individual conditions have had a

iconic project conditions
location
physical characteristics
functional characteristics
sociocultural characteristics
development process
image
scale
uniqueness
innovativeness



positive influence on the intention of real estate developers in practice). To the latter two conditions mentioned, however, a remark must be made. Uniqueness often derives from other conditions of the iconic project, such as the overall image, certain socio-cultural (often historical) or physical characteristics or its function(s). In addition, the innovativeness of projects did not play a demonstrably incentivising role on the Wilhelminapier and neither on Katendrecht. Therefore, these conditions are not explicitly included with regard to the incentivising conditions on the Wilhelminapier and Katendrecht, however are certainly not excluded from being a condition that could incentivise at all. Answer to the main research question provides an in-depth elaboration on why these conditions are not individual variables that are characterised as being catalysing.

Not only the incentivising conditions on iconic project level have been discussed, also location-specific features on the larger scale have had significant influence in incentivising (re)developments according to practice. Some examples that have been mentioned are the *urban ensemble* and the *water of the harbour* (Project Developer, MoR; Project Developer, Molsbergen Development). As these could not be appointed to a specific development, they have not been encountered iconic projects. However, their dynamic character definitely needs to be taken into account, as they demonstrably contribute to the (re)development motives of developers in brownfield area developments too.

Thus (1) functional, (2) sociocultural and (3) physical characteristics of iconic projects, (4) location, (5) scale and (6) image of the iconic project, as well as (7) the fame of the architect and (8) its development process have positively influenced the intention of real estate developers to develop on the Wilhelminapier and Katendrecht too. How, and to what extent will be discussed in the answer to the main research question.

4)

#### How could the conditions of iconic projects that incentivised (re)developments in the brownfield areas of the retrospective case studies be implemented in the redevelopment strategy of the prospective case?

The final objective of this research is to define how the conditions of iconic projects that incentivise (re)developments could be implemented in current and future brownfield redevelopments. Therefore, a prospective case study on the Merwe-Vierhavens redevelopment has been carried out. Based on this case study, it is indicated for each condition of iconic projects (mentioned in the answer to the previous subquestion) how they could be implemented in the redevelopment strategy of M4H to incentivise (re)developments. Except for scale, image and fame of the architect.

Providing incentives through the **scale** of a project appeared to be doubtful as the perspective of the municipality towards scale truly differs from the perspective of one of the initiators. E.g. artist Joep van Lieshout has in mind to develop buildings of about 18 floors while the director Urban Development of MoR advocates for no high-rise buildings as these do not fit the size and scale of the area (Berkelder, 2018, January 27; Director Urban Development, MoR, 2019). **Image** is considered an influential condition that contributes to incentivising developers to (re)develop, however not on building level. The image on areal level, thus of M4H as a whole, is considered to have the ability to incentivise developers to (re)develop with the proviso that it complies with reality. An advice on whether or not to let projects on M4H be designed by **famous architect** in order to incentive (re)developments, could not be provided as it did not play a role in incentivising individual project developments in the retrospective case studies.

Because of the large scale of the area development, M4H is 13 times as large as the Wilhelminapier (§4.4.5), one should take into account that the natural inflow of people in the area differs per **location** within the M4H area. If the development plot is properly accessible and well connected to the rest of the city, the location of the M4H in general provides for incentives for (re)developments. The existing **physical characteristics** that visualise the historical features of the harbour area, e.g. sheds, former warehouses and working places, are considered an incentivising condition that could catalyse (re)developments in M4H too. This also complies with the M4H vision that states the importance of building on present qualities and potentials (Drift et al., 2011). However, the physical appearance of the area as a whole is considered more important than on the level of one iconic project. Also, the current **development processes** of successful and potential iconic projects on M4H could incentivise project developers. Hence, it is recommended to the redevelopment team of M4H to see the power of marketing and publication as an opportunity to attract developers.



The M4H development strategy, however, outlines two challenging views that describe its possible future: *'M4H as a free state'* and *'M4H as a city oasis'*. As each future vision asks for different developments, the implementations of the following conditions of iconic projects that incentivise (re)developments will be discussed in the light of these two visions.

In the future vision *'M4H as a free state'*, the focus is on rough production and pioneers in a ferocious environment (Drift et al., 2011). In order to stimulate the development of this future vision, creative, publicly accessible **functions** that both devise and make innovative products should be developed, especially since risky experiments are explicitly permitted in M4H. And since the aim of this future vision is to become the centre of innovative manufacturing with the objectives to become an open innovation environment that attracts innovative business activities, mainly unique and innovative businesses should be attracted. While **uniqueness and innovativeness** have not been explicitly included with regard to the incentivising conditions on the Wilhelminapier and Katendrecht as they derived from other conditions, in the M4H case they could be deployed for incentives. However, again, this condition mainly derives from other conditions and in this case from the functional characteristics. Finally, the conclusion is drawn carefully that the use of **sociocultural characteristics** is a condition that could incentivise project developments. This, however, has more potential when realising the *'M4H as a city oasis'* scenario, since this focusses on creating a living environment and attracting residents rather than business activities. This future vision aims for communities that like to live, work and produce together in a cordial environment (Drift et al., 2011). As has just been mentioned, sociocultural characteristics could, especially in this future vision, function as a trust gaining catalyst since it makes it, albeit indirect, more interesting and attractive for project developers to develop. The advice with regard to **functional characteristics** is to develop social and commercial facilities such a school, day-care and eateries as these can directly attract new residents, what indirectly attracts new developments.

Next to implementing the aforementioned incentivising conditions of iconic projects in order to catalyse (re)developments in M4H, it is important to have a team that can streamline this large and complex area redevelopment. The interview results showed that there truly is missing a team at the municipality of Rotterdam that gets the initiatives started and subsequent streamlines the developments of projects (Director Development, SDD). It is especially important to have an organisation that is capable of doing this in the first place.

### Main research question

Equal to the goal of this research, better understanding about the conditions of iconic buildings that could incentivise private real estate developers to (re)develop projects in brownfield areas has been gained by answering all subquestions. As a consequence, the answer to the main research question and, thus, the final conclusion of this research could be provided.

#### → What conditions of iconic projects could incentivise project developers to (re)develop in Dutch brownfield areas?

All pre-defined conditions of iconic projects have incentivised real estate developers and thus all pre-defined conditions could contribute to catalysing surrounding developments, however, all to a certain degree. Besides, one should consider the fact that each brownfield has different interests as well as other concerns. As a result, the answer to the main research question cannot be shaped by a sequence of conditions necessary for iconic projects to successfully catalyse brownfield redevelopments, but in a more nuanced manner. It is sorted by most, less and least effective incentivising conditions, based on interpretation of the results per condition of each case (§4.2.5, §4.3.5 and §4.4.5). The answer to the main research question is depicted graphically on the next page in Figure 24.



#### Most effective incentivising conditions

All cases show that functional and sociocultural characteristics of iconic projects are the most effective conditions that can incentivise surrounding (re)developments. Having a publicly accessible function is considered a significant, influential condition that contributes to incentivising developers to (re)develop. The same holds for infrastructural projects that both physically and figuratively



incentivising conditions of iconic projects on brownfield redevelopments						
Most effective	<div>  <b>Functional characteristics</b> </div> <ul style="list-style-type: none"> <li>commercial, infrastructural and innovative mixed-use functions: projects with such functions proved to significantly contribute to incentivising developers, as these are <i>publicly accessible</i> and therefore have the ability to <i>ensure liveliness</i> as well as <i>footfall</i></li> <li><b>key programming:</b> in particular <i>social</i> and <i>commercial projects</i>, e.g. schools or one-of-a-kind eateries, could be appointed as functional characteristics that incentivise future residents to settle there, what makes the neighbourhood <i>economically more decisive</i> and again lays a better foundation for further developments</li> </ul>		<div>  <b>Sociocultural characteristics</b> </div> <ul style="list-style-type: none"> <li>historical characteristics that represent the culture of the brownfield: such characteristics prove to be both <i>meaning creating</i> and <i>history calling catalysts</i> and they function, albeit indirect, as major incentives for project developers to (re)develop - they refer to habits, traditions or beliefs that are/were present in the area - this generally <i>appeals to the imagination</i> of many people and has a <i>narrative nature</i> to which developments could strategically respond</li> <li><b>providing unicity and identity:</b> projects of close presence that provide a feeling of unicity and identity, attracting both visitors and future residents, appeared to be particularly important for the <i>financial ambitions</i> of (re)developments</li> </ul>			
	<div>  <b>Location</b> </div> <ul style="list-style-type: none"> <li><b>location of the iconic project itself:</b> could provide for incentives when the <i>location on itself is iconic</i> already, e.g. the unique location of Hotel New York, at the tip of the Wilhelminapier overlooking the city and the Maas river</li> <li><b>location of plots overlooking the icon:</b> could provide for incentives when it is <i>overlooking the iconic project</i>, e.g. a plot with a view on the iconic Erasmus-brug</li> <li><b>location of plots nearby the icon:</b> the location of public attracting iconic projects provides incentives because the associated <i>flow of people</i> is beneficial for developments on plots adjacent to this inflow</li> </ul>		<div>  <b>Image</b> </div> <ul style="list-style-type: none"> <li><b>long-term committed development companies:</b> this type rather looks for yet an attractive image and existing qualities in the development area - a positive image could incentivise and is therefore considered a <i>prerequisite</i></li> <li><b>short- to medium-term committed development companies:</b> this type either makes use of present project(s) that provide identity, or they provide such projects themselves - a good reputation and positive image could incentivise, but is <i>not</i> considered a <i>prerequisite</i></li> <li><b>project vs urban level:</b> the image and marketing of the <i>brownfield as a whole</i> is more effective in inciting developers to (re)develop, rather than the image of individual iconic projects</li> </ul>			
Less effective	<div>  <b>Scale</b> </div> <ul style="list-style-type: none"> <li>not the scale, but <b>the spillover:</b> not the tangible and physical characteristics, but the common spillover of <i>bringing life into an area</i> incentivises project developers to (re)develop</li> <li><b>large-scaled iconic projects:</b> can function as an <i>incentive</i> as it accommodates a large number of people and therefore brings life into the area - on the other hand, it can be a <i>discouragement</i> as it can block views or be a distraction</li> <li><b>small- to medium-scaled iconic projects:</b> can contribute to incentivising developers as this makes projects <i>intimate</i> and <i>particularly exclusive</i> within the area</li> </ul>		<div>  <b>Development process</b> </div> <ul style="list-style-type: none"> <li><b>general incentive:</b> the development process of ongoing potential iconic projects could be assessed on the <i>parties involved</i> and the <i>expected success rate</i> by project developers, to estimate whether the project will positively contribute to the image and branding of the area: if expected successful, it could incentivise developers as it could serve as a <i>good development example</i> and a <i>marketing tool</i></li> <li><b>specific incentive:</b> no specific (re)development process of iconic projects on the brownfields in study can be mentioned that demonstrably incentivise project developers to (re)develop</li> </ul>		<div>  <b>Physical characteristics</b> </div> <ul style="list-style-type: none"> <li><b>project vs urban level:</b> attractive physical characteristics of projects could incentivise developments, but the physical appearance of <i>brownfields as a whole</i>, often attractive due to old harbour and industrial buildings, has proved to be more incentivising</li> <li><b>physical characteristics depicting the history:</b> in particular physical characteristics with <i>cultural-historical value</i> are much appreciated, as such features visualise the intangible historical features of the brownfield (the socio-cultural characteristics) which contributes to the attractiveness of developing in the area</li> </ul>	
					<div>  <b>Fame of the architect</b> </div> <ul style="list-style-type: none"> <li><b>project vs urban level:</b> the fact that iconic projects are designed by famous architects plays a role in incentivising developments, however on <i>urban level</i> and not so much on project level:</li> <li><b>client view:</b> the name of the architect plays a role for the client of the area redevelopment, mostly a municipality, as it <i>determines the ambitions</i> for the brownfield area and consequently its <i>image</i></li> <li><b>developer view:</b> developing projects with famous architects is of great value for some developers (and tenants), but the architect of <i>projects of others</i> does not demonstrably incentivise developers</li> </ul>	

Figure 24.

The incentivising conditions of iconic projects on brownfield redevelopments.



connect the area and projects with social and commercial facilities, i.e. a school or one-of-a-kind eateries. Such facilities could directly attract new residents, which indirectly attracts real estate developers to develop (mainly residential) projects in the brownfield.

Sociocultural characteristics and specifically historical characteristics could function as a major incentive for project developers too. Sociocultural characteristics relate to the habits, traditions and beliefs of different groups of people in society<sup>1</sup>. In particular the symbolic and historical qualities of iconic projects that depict such habits, traditions or beliefs relating to the area, have the ability to incite developers. They cause narrativity are proclaiming, which provides meaning to the project and could become a signature to the city. This again increases the chance of people identifying with the iconic project and the larger area. Such characteristics could thus function as meaning creating and history calling catalysts, which could again, albeit indirect, function as trust gaining catalysts too. However, the narrativity of sociocultural characteristics differs per project. The incentivising sociocultural characteristics on Katendrecht and the Wilhelminapier for instance, mainly refer to its emigrant history. This has proven to be highly appealing. Migration is a phenomenon of all times, it is indispensable to human histories, cultures and civilisations and therefore is considered highly narrative. The narrativity is less evident at the sociocultural characteristics at M4H for instance, referring to the former activities as a fruit port. One must therefore not get ahead of themselves and must carefully implement this condition by valuing the narrative and proclaiming values. Notwithstanding, brownfields are actually known for their cultural and historical qualities (Duží & Jakubinský, 2013)., e.g. industrial heritage, thus sociocultural characteristics can certainly be strategically deployed to incentivise the redevelopment of brownfield areas.

All in all, iconic projects must have the quality of being authentic by sitting well within the surrounding context and at the same time contributing to the context, in order to successfully catalyse surrounding (re)developments. This can significantly be achieved through the sociocultural and functional characteristics of the iconic project. These could in turn result in sincere interest of citizens in (the iconic project in) the area, which decreases uncertainty regarding demand and demonstrably decreases challenges in obtaining financial support (Area Manager, BPD): both part of the top three barriers for experts with regard to brownfield redevelopments (Table 2). As a result, these conditions make it less risky and more interesting and attractive for real estate developers to develop in the brownfield too.



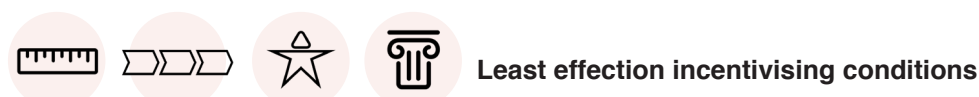
### Less effective incentivising conditions

The functional and sociocultural characteristics are followed by the location and image of the iconic projects, that to a certain degree have incentivised (re)developments too. The location of the iconic project could play a role in providing incentives for further development in different ways. Either the location of the iconic project itself provides the incentives, such as the unique location of Hotel New York at the tip of the peninsula. Or the location of the iconic project itself is not that important, but the location of the surrounding development plots that are nearby or overlooking the iconic project, such as the Boston & Seattle development that became a financially feasible project as it overlooks the Cruise Terminal. One should, however, take into account that the natural inflow of people differs per plot within the area, hence the location could incite developments on certain plots way more than others. Moreover, an interesting story behind the location provides for socio-cultural characteristics which again contributes to inciting developments. And depending on the size of the brownfield, the accessibility of the specific plots and thereby the access of the whole area to the rest of the city should be taken into account as well. Being close to the city center generally contributes to a successful area redevelopment. Brownfields in the G4 relatively close to the city center, however, have lots of potential for developments anyway, as the urbanisation trend has been increasing rapidly since the 20th century already (United Nations Population Division, 2017). Sometimes, the choice to develop on the brownfield even had nothing to do with location-related features: "*Waarom op Katendrecht? Heel plat gezegd, omdat we daar positie konden krijgen.*" (Project Developer, Van Wijnen). Location-related features thus do not always matter so much. Moreover, good accessibility to the to the city center could incentivise real estate developers too (e.g. the Erasmusbrug and metro station Rijnhaven for Katendrecht (Project Developer, Van Wijnen)). Its close distance and good accessibility to the city center then provides for a strategic position on certain development plots. Thus, not so much the location of the iconic developments themselves, but the location of the brownfield as a whole and in particular its access to the rest of the city is considered to be an incite for developments.

<sup>1</sup> Sociocultural. (2019). In Cambridge.com. Retrieved on June 12, 2019 by: <https://dictionary.cambridge.org/dictionary/english/sociocultural>



Although more references were made to the image of the brownfield as a whole rather than the image of certain iconic projects, image is an influential condition that contributes to incentivising developers to (re)develop. In particular project developers that develop housing for the higher segments and for long-term commitments, are looking for yet an attractive image and existing qualities in the development area: “(...) *Dus het liefst haken we dan aan op bestaande kwaliteiten, die zoeken we dan ook op.*” (Area Manager, BPD). Image could thus not only be an incentive to (re)develop, even a prerequisite. Short- to medium-term committed development companies that for instance focus on niche products, either make use of the present project(s) that provide identity, or they provide such projects themselves: “*Het negatieve probeer je bij te sturen, bijvoorbeeld door tijdelijke programmering. Dan buig je het om naar iets positiefs.*” (Project Developer, Van Wijnen). The image of the brownfield thus does not necessarily need to be positive yet. A more or less negative image could be turned into something positive and could consequently be deployed as a strategy for the revitalisation of the area, as has been done on Katendrecht. Moreover, the past, even though it has (had) a negative image, appeals to the imagination of many people: “*Katendrecht heeft natuurlijk een heel rijk en stoer verleden en dat sprak tot de verbeelding voor veel mensen.*” (Urban Planner, MoR). The image of certain individual projects did not demonstrably incentivise project developers and thus cannot be advised. However, the image of brownfields as a whole, with the proviso that it complies with reality, could, and can best be fairly deployed: “*Don't lie, don't deny. Geen grootse idealen. Ze zijn niet gek, die kopers.*” (Director Housing, Frame Vastgoed). Image thus is an influential condition that contributes to incentivising developers to (re)develop, again not on building level but on areal level.



Least effective conditions that can incentivise surrounding (re)developments are the scale, development process, fame of the architect and the physical characteristics of iconic projects. The scale of iconic projects could play a role in providing incentives for further developments, but do not necessarily. A large scale can contribute to making the iconic project highly notable and noticeable. In case of a building, the large scale then functions as an incentive for project developers as it accommodates a large number of people and therefore brings life into the area. It makes the building stand out of the area as well. However, large-scaled iconic buildings could also contradict incentives, particularly when they obstruct or block views from surrounding development plots. All in all, not the tangible and physical characteristics of large-scaled iconic projects, but the common spillover effect of bringing life into an area, incentivises real estate developers to (re)develop. In addition, small- to medium-scaled iconic interventions could incentivise real estate developers too. Mostly, however, this is not directly attributable to the scale, but to for instance the functional and sociocultural characteristics (e.g. Theater Walhalla, §4.3.4). However, a relatively small scale contributes to making the projects intimate and particularly exclusive within the brownfield.

Looking back, no (re)development processes of iconic projects have demonstrably incentivised real estate developers to (re)develop. Looking at ongoing development processes, however, real estate developers have taken these into account in order to estimate whether the project will positively contribute to the image and branding of the area. If that is the case, the development process has the ability to incentivise them to (re)develop. In addition, one should not forget the power of marketing and publications. This could be a contributing factor toward what substantially makes iconic projects a catalyst. Photographs of iconic projects (in construction) that are being published by people or companies on social media and websites and in magazines and newspapers, provide the ability for people to already visit the building or area virtually. As a result, one has the feeling that they already know the building and could therefore become familiar with area quicker. It is important for redevelopment teams to take the power of marketing into consideration and to see this as an opportunity to attract developers.

The deployment of architects has been considered a condition that plays a role in incentivising developments, however, on urban level and not so much on project level. No single architects that designed surrounding projects were demonstrably found to have incentivised real estate developers. Though, the name of the architect could clearly be taken into account by the client, in these cases the municipality, as it could determine the ambitions for the brownfield area and consequently its image. Though developing projects with famous architects is of great value for some real estate developers (and tenants) too, the architect of projects of others does not directly incentivise developers to (re)develop.



Physical characteristics are often an important determining factor for the iconic value of a project, but that does not immediately make it equally decisive for the catalysing factor. The physical appearance of iconic projects really matters for the surroundings, but with different results than directly catalysing (i.e. place-making, putting the area on the map, increasing tourism). Attractive physical characteristics of iconic projects contribute to their own image as well as the image of the larger area. In most cases, the physical appearance of the whole area is more effective with regard to inciting real estate developers to (re)develop, in comparison to the physical appearance of one project in particular. Still, the physical appearance of individual projects is much appreciated by developers. In particular the features that reflect the cultural-historical value of the area, mainly visible through the features of old harbour and industrial objects, are considered to contribute to the attractiveness to develop in the area. Iconic project thus should be aware of the culture, lifestyle and values of the residents so as to fit in the context and be able to function as a catalyst. There certainly is room for spectacular buildings but in order to physically catalyse, this must be enriched through context. The existing physical characteristics that visualise the historical features of the area are considered effective incentivising conditions that could catalyse (re)developments, however less than the physical appearance of the area as a whole. Although other conditions thus may weigh more heavily with regard to catalysing (re) developments, high-profile physical characteristics do ensure visibility and recognisability. The importance of these characters must, despite this condition is one of the 'least effective incentivising conditions', therefore not be underestimated. The physical characteristics are therefore understood as a means to stimulate, rather than a stand-alone stimulus. The same applies, for instance, to simply being the largest tower or the name of the architect.



### **Uniqueness and innovativeness**

As the uniqueness and innovativeness of the iconic projects in the case studies have derived from all other conditions, these are not explicitly called an incentivising condition, which however does not mean that they could not incentivise (re)developments. Sociocultural and functional characteristics could contribute to the longterm iconic value of projects. Consider for instance a museum for ancient arts where, corresponding to the purpose of museums, the function and cultural characteristics usually remains long. The innovativeness of an iconic project, on the other hand, is by definition a temporary characteristic. Unless it creates a major 'first-time' for something, which enables them to create history, the value that the innovative character creates will eventually always decrease due to the (re)development of new innovative projects that surpass the project's innovativeness.

The uniqueness of iconic projects has a temporary nature too. The world we live in is constantly changing, within every industry, including architecture. Architecture is often classified by style, based on certain characteristics typical for the style period. They originate from the history of a society. Something that evolves over centuries and continues to change as a result of changing beliefs, traditions and religions of various regions as well as the rise of new technologies, ideas and materials. Architecture and certain design styles 'in fashion' has thus always been subject to change, ever since early civilizations in prehistoric times. Major iconic projects, however, become part of history, e.g. the Eiffel tower. They are able to stand the test of time and to serve people while it does so. However, one cannot assume that all projects that are currently appointed to be iconic, will become part of history. As a consequence, iconic project could also go from being the next big thing, into being superseded by the following next big thing again. This complies with the theories about brand decay and inflation of icons, meaning that the iconic value of projects eventually decreases (Evans, 2003; Verheul, 2012, p. 28). If the iconic value has mainly been derived by its uniqueness, its longterm value is not certain and neither is its catalysing effect.

Uniqueness and innovativeness are thus inseparably linked to transiency: they disappear more easily compared to the other conditions discussed. As a result, they can not be called sustainable characteristics that assure real estate developers with a long-term success guarantee. The same applies to physical characteristics, which tend to just temporarily draw the attention (e.g. quickly taking a picture at the Sydney Opera House). The functional and sociocultural characteristics are seen as sustainable conditions. They can determine the iconic value for the long-term and subsequently provide more certainty for surrounding investments. Furthermore, historical qualities are timeless by definition and thus even less perishable. Physical reflection of history thus makes iconic projects even more sustainable. All in all, it is recommended to create unique projects, but with



truly authentic experiences. This will make the projects known and used by many for the long-term, assures further potential of the brownfield and thereby makes them truly function as catalysts for the brownfield redevelopment.

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# 07

## Discussion

Chapter 7 provides a discussion of the research, implications for practice and recommendations for further research. The first paragraph provides a brief evaluation of the main conclusions by the interviewees. Thereafter, the consistency of the research results with theory and practice will be discussed. Subsequently, implications for current and future brownfield redevelopments will be provided in §7.3. This is followed by a discussion considering the research limitations in §7.4 and an elaboration on the validity and reliability of the research in §7.5. The chapter ends with a few recommendations for further research on this topic.

### 7.1 Evaluation of conclusions by internals

To evaluate the answer to the main research question, it has been fed back briefly to the interviewees. The approach and the interviewees that contributed to evaluating the conclusions can be found in Appendix IV. In short, the interviewees have been asked whether the classification of conditions (Figure 24) correspond to practice according to their experiences.

According to the experiences of BPD's Regio Manager, the classification completely corresponds to practice and he did not suggest any adjustments to the scheme. He adds that Hotel New York is the perfect example of being a catalyst through functional and sociocultural characteristics. The Project Manager of MoR recognizes the conclusions too. In addition, he sees Hotel New York, theater Walhalla and the Fenix Food Factory as good examples of iconic projects that functioned as catalysts due to their functional and sociocultural characteristics. The Director Development of SDD, however, expected the location to score higher and commercial functions to score lower since the latter, due to their complete uniformity, are not regarded as very attractive. Architect and urban supervisor for the Kop van Zuid understands the classification, however, finds it a bit too theoretical to assess in practice. Moreover, he stresses the importance of the financial substantiations, i.e. demand and return on investment, when initiating projects developments.

All in all, the answer to the main research question came out fairly well after evaluation and therefore remains unchanged. Most comments that have been made, emphasized the bigger picture. There are many more externalities that can stimulate developments rather than just iconic projects. By all means, it is necessary for this research to offer the bigger picture. The next paragraph will therefore put the conclusions into the wider context and compares the the outcome with the theories discussed.

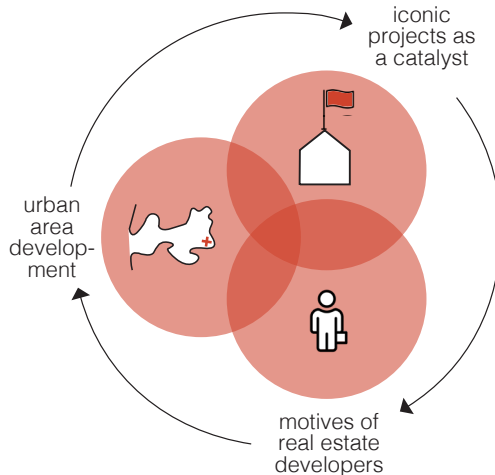
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### 7.2 Discussion

Examples of externalities that, next to iconic projects, could incentivise (re)developments are major pre-investments in a brownfield area by public parties. The redevelopment of the Wilhelminapier is considered quite special as businesses and government jointly invest in the developments of the area, however, many government investments preceded, i.e. De Rotterdam, Erasmusbrug, Nieuwe Luxor Theater and De Rechtbank (outside the case study area but part of Kop van Zuid) (Figure 11). Only later, private investments followed. People and businesses that now settle on the Wilhelminapier opt for a strong image, excellent accessibility, high-quality appearance and high-quality, metropolitan facilities. However, the question raises as to whether this image and the corresponding qualities would have been achieved without the previous public investments. In other words: it is clear that certain conditions of iconic projects indeed catalyse surrounding developments, however, would these projects have been developed and thus functioned as catalysts too, without the preceded public investments? Most certainly not.



Figure 25.  
Mutual reinforcement within a brownfield redevelopment.



These public investments could thus be considered a very strategic move. The developments of the Erasmusbrug, metro station Wilheminaplein, het Nieuwe Luxor Theater, and De Rotterdam have started a mutual reinforcement. The municipality, in principle, made the first moves, after which many other great moves have followed. Moreover, there is not one iconic project that catalysed all developments that followed. The area development needed a few catalysts to start the circle of incentivising real estate developers to develop in the brownfield. In other words, the one project development functioned as a catalyst again for the next one. The projects have thus been mutually reinforcing each other, which complies with the initial results from practice that made clear that actually all projects have had a catalysing effect on the surrounding developments in their own way.

Another example of an externality that, next to iconic projects, incentivised (re)developments is the true commitment of public and private parties together to revitalise a brownfield. Regarding Katendrecht, the peninsula became trendy not purely for lower income groups anymore, but also for middle and higher income groups by the development of new, qualitative and lively living environments accompanied with culture, culinary and creative facilities. As a consequence, this has catalysed the market since many developments are now in process. The renewal of Katendrecht ensured that people with different cultures and interests enriched each other. This has not only been catalysed by single iconic projects like Theater Walhalla and the Fenix Food Factory. One has to keep in mind that the municipality of Rotterdam, Woonstad Rotterdam and Proper Stok/Heijmans actually laid the foundation for these developments, prior to the existence of the iconic developments. Even in difficult and uncertain economic times, these parties have continued the commitment to revitalise Katendrecht, successfully.

### Conditions and spillovers

After discussing the consistency of the research output with Dutch practice and prior to providing implications, the consistency of the research output with the literature review results will be discussed.

The fact that functional characteristics are of great importance within the development of buildings, has been clearly evident already since the late 19<sup>th</sup> and early 20<sup>th</sup> century through the principle of Louis Sullivan: “*form ever follows function*”<sup>1</sup>. These are contemporary words for designing functions for the user’s needs and, only after, designing the corresponding form. When pursued extremely, such projects “*may be called machines*”<sup>2</sup>. Moreover, the importance of sociocultural characteristics within the development of buildings has been substantiated by many architects. Mark Wigley and Philip Johnson for instance emphasise the fact that the force of architecture derives from movements in culture: architecture never derived its force from stability of culture, but rather from the expression of those moments when that sense of stability slipped.<sup>3</sup> For buildings to reflect the zeitgeist while surviving political changes, economic instability and human taste, as mentioned in the literature review, it needs lasting qualities (Maschayk, 2015). This is most evident in historical buildings.

Narrativity relates to activities and stories that have been happening in cities and our everyday lives (Tseng, 2015). This could be expressed by architecture: “*For Goethe, architecture was like language in that it provided immediate expression of man’s intellect and spirit. At the same time, again following Herder, Goethe saw that architecture, like language, was not simply a medium of individual expression, but more importantly expressed the entire collective identity of particular peoples, the Volksgeist.*” ~ Adrian Forty<sup>4</sup>. Architecture can thus also be seen as narrative intervention due to its expression of collective identities, memories and characteristics through spatial and material implementations (Tseng, 2015). Moreover, architecture literally creates context, which is what is needed to create and preserve personal and collective memories and stories. Narrativity may stem from people’s collective memories of historical events in urban context. Due to iconic

<sup>1</sup> Sullivan, L. (1896). The tall office building artistically considered. Lippincott’s Magazine, 57, p. 409.

<sup>2</sup> Greenough, H. (1850). Relative and Independent Beauty [essay].

<sup>3</sup> Wigley, M. & Johnson, P. (1988). Deconstructivist Architecture.

<sup>4</sup> Forty, A. (2000). Words and Buildings. London: Thames & Hudson, p. 76.



projects being high-profile, thus attracting lots of attention and interest<sup>1</sup>, they can be seen as highly narrative. The fact that sociocultural and functional characteristics create meaning and identity to an area by their narrativity thus builds on existing evidence too.

With regard to the spillover effects of iconic projects and flagship buildings, many scientific literature has been available. Based on five scientific sources, the main possible spillover effects have been illustrated and distinguished in spillovers with economical, physical and sociocultural impact (Table 6). The overview is non-exhaustive but appears to be very complete. Catalysing surrounding developments is just one example of a spillover effect of an iconic project. In addition, all spillover effects are seen as contributors to the spillover of inciting other developments. The place-making character, attracting employment and improving social integration could for instance attract real estate developers too, as these spillovers improve the quality of life in the area. The spillovers are identified individually, but thus cannot be completely isolated.

This master thesis, however, mainly focusses on one physical and economical spillover effect: resp. (1) stimulating urban development, regeneration and infrastructure and (2) stimulating private and foreign investments. The question, however, was what conditions could be attributed to these spillovers. In order to give answer to this question, a clear overview of the conditions of (iconic) projects that could provide spillover effects was needed. Scientific literature, however, did not directly provide this. Therefore, these conditions have been operationalised prior to the empirical research was conducted, based on interpretation of the spillover effects found in literature and expectations. Some examples to illustrate these interpretations and expectations are stated below.

- The spillover '*creating a more appealing view of the area*' could be attributed to the conditions '*physical characteristics*' and '*location*', as views are created through physical objects on visible locations.
- The economic spillover '*employment growth*' could be attributed to the condition '*functional characteristics*', as for instance commercial or office functions involve work and thus employment.
- The spillover '*building social cohesion, community development and integration*' could be attributed to the conditions '*functional characteristics*', '*sociocultural characteristics*', '*development process*' and '*image*', as public functions that relate to traditions and beliefs of different groups of people in society, participation of residents in the redevelopment process, and a strong social image could lead to this spillover.

All in all, this resulted in the list of conditions as shown in figure 6. During the entire research process, this list could be adjusted, as conclusions are drawn based on interpretations rather than quantifications. The list, however, has not been adjusted ever since developed. This research contributes to more clarity regarding the effectiveness of the conditions on this list, by specifying the conditions that ultimately provide most incentives for real estate developers.

Deciding on using the concept 'iconic project' and defining a corresponding definition, has not been an easy task. In retrospect, however, the use of the 'iconic project' concept has been the right choice. 'Flagship projects' for instance imply that projects are deliberately deployed with the intention of becoming an icon. That does not cover the iconic value of this research as several projects have been investigated that *did not intend* to become iconic, but subsequently turned out to have become iconic anyway. Such projects that 'accidentally' gain an iconic status have proven to be very valuable in the area development, or even functioned as the main catalyst (e.g. Rijnhavenbrug). The definition that was ultimately given to the concept of iconic projects is a bit too comprehensive in retrospect. If a project does not meet one of the conditions (Table 11), it could still be (come) iconic. A practical example for this issue is the Theater Walhalla project in Katendrecht. In theory, this was not an iconic project as it does not meet the condition of being a high-profile and prestigious project. In practice, however, this project has proven to be highly iconic. The lack of the first condition is compensated by the high degree of compliance with the conditions of providing identity to the area and being both a meaning creating, public attracting as well as trust gaining catalyst (§4.3.4). The 'iconic project' concept thus covers the right meaning, however, the requirements for meeting the conditions should have been a bit less strict (Table 11). Yet, it remains difficult to capture a fairly subjective concept in theoretical conditions.

### **Increasing role of market and civic society**

The literature review on urban area development in the Dutch context concluded that the demeanour of governance experiences a continuous move towards the decentralisation of governmental powers, which increases the role of the market and civic society (Heurkens, 2012). The cross-case

<sup>1</sup> High-profile. (2019). In Cambridge.com. Retrieved on March 27, 2019 by: <https://dictionary.cambridge.org/dictionary/english/high-profile>



analysis that analysed the roles of the municipality in the conducted case studies, demonstrates this very clearly. The redevelopment of the Wilhelminapier, which started in 1993 with the redevelopment of former HAL headquarters into Hotel New York (Figure 11), has a clear vision and urban plan which was provided by the municipality. This is considered to be a top-down approach. Katendrecht had a pretty clear development plan as well, created in 2005 (§4.3.2), however, less strict compared to the Wilhelminapier plans. In addition, the plan was not only created by the municipality, but jointly with a housing corporation and contracting developer. This is considered to be in between a top-down and bottom-up development approach. The M4H redevelopment team set up clear scenarios and two clear visions for the area redevelopment in 2011 (Figure 21), however, no concrete urban plans at all. The area redevelopment is meant to evolve organically and is subsequently fully shaped by a bottom-up strategy. Literature showed a power shift from the state to the market and the urban development practice that has been researched in this thesis can only confirm that.

### **Thesis contribution**

All in all, this master thesis adds value to the Urban Development Management field of study and to both the clients and contractors of brownfield redevelopments. It adds value to the Urban Development Management field of study as it supports effective solutions that can both produce and promote sustainable urban environments, by providing insights into the conditions of iconic projects that can drive brownfield redevelopments. It thus aspires to beneficially make use of the catalysing nature of iconic projects, in particular pertaining to stimulating other (re)developments in its surrounding area. In addition, this research intended to reduce the likelihood that clients would adopt the unrealistic idea that high-profile and prestigious projects automatically spur other project developments in the environment. This consequence of catalysing developments cannot be taken for granted. Accordingly, the development of iconic projects could (partially) be a waste of time and money if they have been intended to spur further developments in their surroundings, but were found not to have spurred.

The conclusions of the research therefore add value to clients, mainly municipalities, of brownfield redevelopments as they offer valuable insights into the conditions of iconic projects that can substantially increase the chances of inciting project developers to develop. These insights moreover serve as an inspiration source for contractors, mainly private real estate developers, of brownfield redevelopment projects. Besides clients, it thus adds value to contractors too. Justification for iconic projects is often lacks or is considered weak and/or not specific. If external goals for iconic projects have been set, its achievements are often not assessed in advance or in retrospect (Oligschläger, 2015). Fundamentally, this master thesis offers clients of brownfield redevelopments, usually municipalities, valuable insights that increase the success factor of deploying iconic projects with the intention of stimulating further project developments, thereby reducing uncertainties regarding the realisation of this intention.

## **7.3 Implications for current and future brownfield redevelopment**

This paragraph presents the implications for current and future brownfield redevelopments that have emerged during the research process. The problem statement of this research stated that, within the short and medium-long term, the residential needs within existing cities will not be met. Taking into account the potential of un(der)utilised urban areas within these existing cities, more specifically brownfield areas, there is not enough knowledge available on operational level to stimulate their redevelopments. Correspondingly, this research contributes to a better understanding on incentives for (re)developments in brownfield areas through the use of iconic projects. Implications with regard to the problem statement address advices for the prospective case study area in particular (M4H), however, they are useful for Dutch brownfield redevelopments in general as well. Insights into the conditions that contribute to incentivising real estate developers to develop, offer clients, mostly municipalities, better perspective on effective redevelopment strategies. They are meant to function as inspiration source and a guideline.

Iconic projects provide identity and character to an area and that has proven to be possible through attractive sociocultural and physical characteristics that are visibly referring the history of the area. In addition, publicly accessible functions and simply being a physical connector in the area, appeared to be an effective condition of iconic projects to incentivise surrounding (re)developments. Both conditions are often accompanied by the spillover of bringing life into an area. Moreover, iconic projects that function as catalysts have either had cultural-historical value and/or special ar-



chitectural qualities. These are not considered a must, but demonstrably contribute to incentivising brownfield (re)developments. Considering the fact that more and more inner-city brownfields are being redeveloped into mixed-use areas with residential spaces and industrial, office and commercial uses, the existing architectural qualities and historical values should be reused to attract different user types and developers.

Overall, this research provides insights into the benefits of using certain conditions of iconic projects in order to stimulate further physical transformations in the brownfield area. These insights should be used prior to the development of iconic projects. Subsequently, they can contribute to more valid arguments during debates on whether or not to strategic deploy iconic projects in order to stimulate a brownfield redevelopment. As such, it offers valuable insights that increase the success factor of deploying iconic projects with the intention of stimulating further project developers. This in turn contributes to speeding up the process of meeting today's residential demands. This research concludes that all of the conditions of iconic projects identified can have a stimulating effect on real estate developers, however, illustrates a clear distinction between the most to least effective conditions. As a result, it contributes to the chance of success of catalysing (re)developments in the brownfield and thus to the discussion on whether or not and how iconic projects can be used strategically to achieve this. These insights can again be used to support brownfield redevelopment strategies, investment decisions and discussions on the deployment of iconic projects as a catalyst.

All in all, this research aims to create awareness by municipalities and to spark their curiosity to not only realise iconic projects to put an area or the city on the map. It aspires to strategically make use of the possibilities that iconic projects offer, pertaining to incitements to other (re)developments in the wider environment. Through the identification of the conditions of iconic projects that incentivise developers, the first preliminary steps in the direction of meeting the short to medium-long term residential demand in urbanised areas can be set in stone.

## 7.4 Limitations

Like every research, this thesis has a few limitations which will be briefly discussed. The first limitation is that the results are applicable to brownfields in Rotterdam. Due to contextual changes regarding politics, geographics and demands between the G4, the case study locations can not be considered representatives of all other brownfield redevelopment cases. Conducting more cases studies on brownfields within the G4 will make the research more valid and will provide for a more generalisable outcome. In addition, this research focusses on the Dutch development practice only. When translating the results to international brownfields, one must take into account the differences in sector, development policies, roles and motives of private real estate developers and views of the public on iconic value.

Secondly, conditions of iconic projects are by all means not the only factor that incentivised (re)developments in the case study areas. Many other external factors could be attributed to incentivising the (re)developments too (e.g. lowered financial barriers due to the land policy carried out by the municipality, economical growth or certainty in demand). This research does not include the practical implementation, where the conditions are being strategically deployed in brownfield redevelopments. The implementation will incentivise further (re)developments in the brownfield area, but might encounter other consequences too. Due to the research' strong focus on the catalysing effects, these additional effects have been underexposed.

Thirdly, the research findings may not have proven causal relationships between the conditions of iconic projects and (re)developments, they do determine relevant correlations between these variables which provides more insights into their relation. In addition, a lack of deeper operationalisation of the relationship between the incentivising conditions of the iconic projects and their spillover effects exists, due to the scope of this research.

Finally, most interviews have been conducted with practitioners active in the Wilhelminapier and Katendrecht and a lot less with practitioners active in M4H. As these brownfields have almost been redeveloped completely, sources of error due to confounding bias could occur. The initial idea of conducting a prospective case study, where no successes have yet been achieved, therefore partly shrank into insignificance.



## 7.5 Validity and reliability

When conducting case studies, four tactics could be tested in order to assess the research quality, being the construct, internal validity and external validity and the reliability (Yin, 2003). These are discussed below. The validity of this research will be addressed first. In this context, however, an important note must be made as validity is not something done right or wrong. In stead, it is considered an indication of the soundness of the research and thus there is always room for improvement.

### Construct validity

To assess the construct validity of the research, the following two steps have been covered: 1) selecting the specific types of changes that have been studied and 2) demonstrably reflecting these types of change by the selected measures (Yin, 2003). The specific types of change that have been selected are brownfield redevelopments, measured by iconic projects conditions. This has been more specifically addressed in the conceptual model and its operationalisation (§2.5). This is considered a valid measure to research the effects of iconic buildings on brownfield redevelopments. However, to increase validity, one could use multiple sources of evidence, establish a chain of evidence and/or have the case study report be reviewed by key informants (Yin, 2003). These tactics have been re-spected in this research by conducting multiple interviews with different developers in different organisations (i.e. private development companies, municipality and foundation) for each case. Moreover, the interviews have been enhanced with multiple policy documents, reports and plans on the brownfield sites. In addition, multiple brownfields have been studied and the (preliminary) conclusions have been evaluated twice (§5.2 and §7.1).

### Internal validity

As this research determines whether certain conditions of iconic projects have persuaded real estate developers, the internal validity of this research needs to be assessed too. If incorrect conclusions have been drawn with regard to the causal relationship between these factors, without knowing that a third factor may have influenced or even caused the project development, the research failed to thread with internal validity (Yin, 2003). This has been counteracted by constantly reflecting on the bigger picture in the synthesis, conclusions and the discussion in particular. Moreover, an evaluation has been organised with a panel of consultants and managers who tackle development and investment issues on a daily basis, in order to validate the findings and put them in a wider context.

### External validity

Every private development company has its own qualities and the visions and missions could completely differ. Therefore, their characteristics and competencies highly differ too. Nevertheless, the literature review enabled a classification of four developer types. This differentiation makes it hard to generalise the motives of developers. The same holds for conditions of iconic buildings that incentivise developments. There is little literature to be found that specifically goes into the conditions, rather than the spillovers. However, both the iconic project conditions and the developers' motives had to be operationalised prior to the empirical research. This made the conditions both hard to compare and hard to assign to developers' motives and ss such, this limits the generalisability of the research.

Therefore, much attention was payed on the case study selection. The chosen cases are located in the same city, causing the political, geographical and social context to strongly correspond. These factors do not significantly influence the motives of developer's differently, which, as a consequence, ensured greater validity. Considered the scope of the graduation thesis, three brownfield areas have been selected as case studies. The chosen cases reflect the spectrum of brownfield redevelopments in all different processes, which minimises limitations of the generalisability. As much as possible, the three cases are not representative to the brownfields in general. As a consequence, one particular recommendation, derived from the evaluation panel, is to cross-check the conclusions of this study by adding case studies on former industrial areas too, as brownfield comprise more than former harbour areas only.

On the other hand, the context of the cases is highly important and the external validity of the research findings are hard to determine since a large part of the findings are based on cognitions, emotions and actions with regard to iconic project in brownfield redevelopments, derived from semi-structured interviews. The generalisability of this research seems to fall behind the three cases studied, as the case studies conducted can not be considered representatives of all other brown-



field redevelopment cases (Bryman, 2012, p. 406). This research, however, still aspires to function as source of inspiration for redevelopment teams working on any brownfield in the Netherlands, knowing that very limited research is done into the incentivising conditions of iconic projects rather than into the spillover effects.

### **Reliability**

The reliability of the research concerns the accuracy of the research, opting for minimal errors and biases. If an investigator conducts this research according to the described methodology again, he or she should draw the same conclusions (Yin, 2003). In particular the use of a case study protocol containing the procedures and the development of a case study database ensured reliability. The case studies have all been structured the same way and the data retrieving methods with their corresponding sources and aims have been extensively addressed (Figure 7; Table 9; Table 10). Moreover, interview protocols consisting of both the questions and the prompts have been created and documented in appendix V, and their set-up has been extensively described in §3.2.2. In short, the report has been set-up in such a way that an investigator could repeat all procedures while arriving at the same results. As such, this research is considered to be reliable.

## **7.6 Recommendations for further research**

Suggestions for further research have been made on the basis of additional insights during the research and on areas that have not been covered due to the scope of the research. The recommendations concern optimisation suggestions with regard to the results of the current research and recommendations on the general research concepts.

It would be an added value to conduct a similar type of research, however, not into the influence of iconic projects on project developers, but into the influence of temporarily place-making projects on project developers. The development of iconic projects is often quite cost intensive and time consuming. Temporarily place-making projects could provide catalysing effects too, however, generally require less investments and time. Therefore, they could be deployed as a more accessible replacement of iconic projects. They are usually deployed as one of the first steps in urban area developments and often turn out to be highly successful. However, if it is temporary, it has to go away at some point, often for the initial developed purposes of the urban area. The question then raises whether this success has a temporary nature on the area as well, or whether this is a long-term success. In case of the latter, one created a kind of permanent temporality, that was not even the intention. That could be considered a luxury problem, as the surrounding parts have benefited and so it met its intention. However, it could also be considered as being a victim of its own success of temporary place-making. Despite the fact that place-making has been investigated and used a lot already, this recommendation could be a valuable addition to research in the field of catalysing area redevelopments.

In addition, it is recommended to conduct more extensive research into the requirements needed for the development of iconic projects that incentivise further developments on brownfields. For instance, into active land policy at brownfield redevelopments by municipalities, by acquiring land or through the Wet Voorkeursrecht Gemeenten, however, with a risk-aware approach. Such requirements help to program and realise a program that steers on conditions that incentivise (re) developments, which allows for application of the research findings. And, as there is now more knowledge on incentives for brownfield redevelopments by means of certain iconic project conditions, research into lowering the barriers of brownfield redevelopments (as stated in Table 3) would make this research even more valuable in practice.

It is also recommended to conduct the same research with case studies within one of the other major cities of the Netherlands: Amsterdam, Utrecht or The Hague, as the history and identity of these cities highly differs from Rotterdam. Rotterdam was of course greatly affected by the second World War, does not contain a typical historical city center and is considered very modern. That could be part of the reason why the sociocultural characteristics referring to the history of the area turned out to be an important incentive for real estate developers. This could differ, for instance, in Amsterdam, as its atmosphere could be considered the opposite of Rotterdam. Amsterdam has a rich history which still is clearly visible through the many cultural heritage. Utrecht and The Hague also have the possibility that the sociocultural characteristics referring to the history of the brownfield turn out to be a less important incentive for real estate developers, as compared to Rotterdam.



The Hague is the city of justice in the Netherlands and is known for its stately mansions, large embassy buildings, parliamentary buildings, boulevards and palaces, while Utrecht is a large, lively and creative student city, located in the center of the country with a historical city center with many (religious) monuments. They both have lots of cultural heritage, however, not with regard to harbour related activities like Rotterdam. Potential brownfield redevelopment areas in Rotterdam are mostly old harbour areas along the Maas river, while Utrecht and The Hague lack a harbour and their brownfield areas mostly concern (previous) industrial sites along highways or railway tracks. Compared to harbour areas, industrial areas and the associated projects have different narrativity as well as physical appearance. As such, more comprehensive conclusions could be provided that moreover could be better positioned in a broader context by accompanying this research with case studies in Utrecht, The Hague and Amsterdam, other than in Rotterdam solely. The 'nice to have' case study selection criterium should therefore be removed.

Conducting the same research on greenfields in stead of brownfields would be interesting too. Since these are clean, undeveloped sites that have not been previously developed other than for agriculture or forestry use (Bobadilla, 2008), they in any case have less or even no sociocultural characteristics that refer to the history of the area. One of the most effective conditions of iconic projects that can incite developers to develop in this research is sociocultural characteristics. This will by definition differ in greenfields. However, this research would be more valuable for boom-ing cities abroad, where the urbanisation trend is even more evident than in the Netherlands. The major development task of the Netherlands now lays in the already urbanised areas and developing in greenfields is currently not desired and less prioritised by the government (Groenveld, 2017). Moreover, the greenfield developments that we know in the Netherlands, e.g. Leische Rijn, did not use any iconic intervention to successfully get it off the ground. Further research could show if greenfield developments are somewhat simpler and less complex tasks that do not necessarily need iconic interventions to get it going.

Finally, it is recommended to find out whether it is feasible to conduct research where the main aim is equal to the one of this thesis, however where the results could be quantified. A quantitative methodology should then be applied, where for instance the application of a questionnaire could be appropriate. A larger sample size could then be researched. The bigger the sample size, the more likely to get the most representative results, regardless of the population size (Bryman, 2012, p. 198). Depending on the exact population of the sample, the results of the questionnaire could for instance provide insights in the extent to which certain conditions of iconic projects are nationally or internationally considered in the decision-making process of a near (re)development. These results would be highly interesting, however, difficult to obtain as well, as all other success factors of development decisions are expected hard to exclude when conducting research on the developer's decision-making process. Moreover, you need to have a large sample of respondents to be able to draw reliable conclusions.

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# 08

## Reflection

The final chapter contains a reflection on the graduation research that will touch upon a number of topics. First of all, the position of the research within the education will be discussed. This is followed by a reflection on the scientific and societal relevance of the research. Finally, the methods used to conduct this research will be discussed in §8.3. Reflections on the research process from a personal point of view and on the ethical concerns encountered are presented in Appendix XI.

### 8.1 Position of research

This graduation thesis is part of the *Sustainable Area Transformations (in the Netherlands)* graduation laboratory, provided by the Urban Development Management (UDM) chair of the Management in the Built Environment (MBE) department. This chair investigates design concepts, principles and instruments that support effective strategies that can both produce and promote sustainable and resilient urban environments. These strategies aim to shape the behaviour of stakeholders by their decisions and actions, and intent to create networks and collaborations to implement change in urban areas (Urban Development Management, n.d.).

Some of the strongest demands that significantly dominate the current UDM debates with regard to the resilience of urban environments in the Netherlands, are about the importance of regenerating existing urban areas and about the ongoing high demand for housing particularly. These two debates are inextricably linked, as the renewal of existing urban areas simultaneously addresses the housing demand, which is particularly strong in already urbanised areas (Delft University of Technology, 2018). The aim of this graduation research was to provide more insights into the conditions of iconic projects that could incentivise private real estate developers to (re)develop properties in brownfield areas. This anticipates on the fact that it is still unclear how the strong residential demand in already urbanised will substantially be administered (Delft University of Technology, 2018).

By conducting retrospective case studies on brownfield area redevelopments of best practices, the conditions of iconic projects that incentivised surrounding (re)developments and their effectiveness have been explored. By conducting a prospective case study on a brownfield which is on the verge of being redeveloped, implementations of these conditions in practice have been suggested. This fits research into the regeneration of already existing urban area. Insights into the effectiveness and implementations of conditions of iconic projects that can spur brownfield redevelopments, support effective solutions that can both produce and promote sustainable urban environments. Moreover, it supports more applied research on possible design principles and governance models for sustainable and successful area transformations. This research contributes to increasing the success of deploying iconic projects with the intention of stimulating further project developments. Thereby reduces uncertainty with regard to the fulfilling this intention, which again fits research into successful regenerations of existing urban areas: brownfields in this respect.

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### 8.2 Relevance

In this paragraph, the relevance of the research will be discussed by reflecting on the scientific and societal relevance individually.

#### Scientific relevance

The development of iconic projects has become a popular tool for municipalities to generate catalytic effects in regeneration processes or to boost the image of transformation areas. Iconic projects can thus be deployed to speed up the process of meeting the high residential demands, particularly by means of catalysing surrounding developments.



What has been found remarkable, is that many studies yet focussed on the value and impact of iconic projects, however have not by definition explored the specific conditions of iconic projects that catalyse surrounding area transformations. Using the insights in these conditions will increase the chance of success for brownfield redevelopments. Moreover, it provides for opportunities to better cope with the urbanisation trend, as more knowledge is now available as regards to stimulating (re)developments.

Another remarkable finding during the research process was the fact that there is very little literature to be found regarding the behaviour and motives of private real estate developers. The developers perspective is not widely scientifically substantiated. This is against expectations, since they play a key role in fulfilling the needs and demands of society.

This research has contributed to the aforementioned shortcomings within the state of the art literature, by providing a clear overview of the conditions of iconic projects that have the ability to spur real estate developers to develop in brownfields. Obligated to remark, though, is that the conclusions are derived from three case studies in Rotterdam. The generalisability of this research falls behind these three cases studied, as the case studies conducted can not be considered representatives of all other brownfield redevelopment cases. However, this research is still interesting and useful for future redevelopment teams of Dutch brownfields in general, knowing that limited information is yet available.

### **Societal relevance**

The development of iconic projects in redevelopment areas are often initiated or financially supported by municipalities for several reasons, e.g. to polish up the image of the city, to create or increase a flow of tourism or to create a catalysing effect with regard to raising capital. Despite the usually high investments costs and ambitions that go with such developments, municipalities rarely know which conditions actually achieve their desired spillover effects. Therefore, this research went into the latter.

This research specifically focussed on brownfield area transformations. These area redevelopments are preferred in Dutch policies (Ministerie van Infrastructuur en Milieu, 2017). Also, 35% (high-growth scenario) to 80% (small growth scenario) of the housing needs until 2050 can be realised in un(der)utilised areas and vacant buildings within the existing city (Brink, 2017). Since the market currently takes up a quarter of the Dutch housing program within the city centres only (Verheul & Daamen, 2017), research into incentives that could speed up this process is substantially relevant. This is supported by the fact that many brownfield areas in the Netherlands are currently (on the verge of) being transformed. Moreover, all practitioners that have been involved in this research have been very enthusiastic about the issue this research tries to tackle. They have sincerely showed interest in the final research output, which contributes to the practical relevance of this research too.

Municipalities have been offered a better perspective in design principles that could be strategically deployed when tackling brownfield redevelopments, by providing an overview of the conditions of iconic projects that spur surrounding (re)developments. Subsequently, the first preliminary steps in the direction of meeting the short to medium-long term residential demand in urbanised areas can be set in stone.

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## **8.3 Methodology**

### **Literature study**

The goal of the literature study was to gain better understanding of the research concepts, by identifying and getting familiar with a substantial amount of related literature so as to create literature awareness. The three main research concepts studied were 'Urban Area Development', 'Iconic projects as a Catalyst' and the 'Motives of Real Estate Developers'. The expectation was to formulate a concrete answer to the research questions corresponding to the concepts, which would provide for direct operationalisation of the conceptual model. This turned out slightly different and, as a consequence, the operationalisations of the developers' motives and iconic project conditions had to be done based on less concrete literature findings. It succeeded, nevertheless, but it is not ideal to start empirical research with as the literature findings were the primary source for the foundation of the empirical research.



## Case studies

A qualitative research has been applied, consisting of three in-depth holistic case studies. A qualitative research method has been chosen, as the focus of this research is on motives and incentives which is difficult to quantify. The cases have been carefully selected by using extensive selection criteria. Looking back, their findings are considered very valuable for the research and, should the research be redone, the same cases would be chosen again. However, conducting three in-depth case studies is something that would be reconsidered. This appeared to be a lot of document study compared to the time available for the research. Especially considering the fact that these case studies all involve many stakeholders, many single project developments and have quite an extensive (development) history that should be taken into account. Despite the workload that accompanied this choice, the level of detail remained high. The prospective case study, however, has been studied less in-depth. That did not affect the research quality, since this case was studied to make the results transferable to practice by means of suggestions for implementation. Moreover, the main results necessary to answer the main research question derived from the retrospective case studies. All in all, the preliminary general context analysis on Rotterdam, the extensive document studies on the redevelopment visions and processes, consequently the redevelopment process visualisations by means of timelines, the iconic assessment method that has been developed and applied, the extensive property development analysis (Appendix I, II and III), the provided impressions and the interview summaries, ensured a qualitative and extensive exploration of the brownfield redevelopments.

Both the Wilhelminapier and Katendrecht have proven to be very suitable case study locations to explore the influence of iconic projects on the developers motives, as they have much in common however differ a lot as well. They are both successful and advanced area developments with many appointed iconic projects, however have a totally different atmosphere and iconic values. Also, much information can be found regarding these area developments and the involved developers have all been very willing to contribute to the research.

The interviews with project developers and managers were very valuable from the research perspective, as well as from a personal point of view. I had the ability to speak to many practitioners of exceptional development merit, both from public parties, private parties and foundations. From an academic stance, this was very useful as much insights into the perspective of the developing parties was gained. From a personal stance, this was very useful as this provided the opportunity to get to know more development companies, as well as more feeling by the more 'dry' document study that was explored prior to the interviews. Though most practitioners that have been approached were willing to contribute to this graduation research, this has been less successful for the retrospective case. This had to do with the fact that most developments on M4H were either in a very early phase, or they in the middle of the development phase. The first made it hard to find suitable developers to interview, as there was a lack of concrete development plans that could be discussed. The latter made it hard to interview development managers from the municipality, as they simply were very busy streamlining all developments and initiatives at that moment. Ideally, more interviews were conducted for the M4H case study. Then, the recommendations regarding the implementation of iconic project conditions could have been more detailed.

All in all, the used methods have been appropriate to effectively meet the main aim of the research and to effectively conduct in-depth holistic case studies, given the final level of detail of the investigation.

## Evaluation Panel

During the final stage of the research process, an evaluation panel has been organised with ten consultants and managers from the department Development & Investments of Brink Management / Advies. The main objective was to evaluate the lessons learned from the case studies and the cross-case analysis, in order to validate results. Moreover, this session provided input for recommendations for further research. It has been deployed by means of a discussion, organised by the presentation of triggering statements derived from the results at that moment. Despite the fact that it feels like more could have been get out of it (because the cross-case analysis was not yet fully completed at that time and therefore could not entirely be evaluated), it has been very useful to do. The lessons learned have proven to be very valuable for the research and the expert panel made me zoom out again and put the results in a wider perspective.

For a reflection on the **ethical concerns** and on the **research process**, please go to Appendix XI.

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## APPENDICES

*Supplementary documents and analyses detailing and completing the master thesis.*

- I. Property development analyses
- II. Impressions
- III. Iconic states
- IV. Informed consent
- V. Interview protocol
- VI. Interview director Urban Development MoR
- VII. Presentation Riek Bakker
- VIII. Evaluation of the conclusions by internals
- IX. Reflection on ethical concerns and the research process







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# Appendix I. Property development analysis

Wilhelminapier



MAP CASE 1:  
KOP VAN ZUID



Plot	Name	Status	Start	Completion	Program
1.	Erasmusbrug	Original development	1990	1996	Bridge
2.	Belvédère (KPN / Toren op Zuid)	I. Original development II. Redevelopment	1998 2016	2000 2018	Mixed Use: Offices, Commercial space Mixed Use: Offices, Commercial space
3.	De Rotterdam	Original development	1997	2013	Mixed Use: Offices, Commercial space, Hotel, Residential
4.	Cruise Terminal*	I. Original development II. Redevelopment	1946 2013	1949 2015	Arrival hall H.A.L. (Holland-America Lijn) Mixed Use: Cruise Terminal, Event location
5.	Baltimore (Peter Stuyvesant Building)	Plans	2012	canceled	Mixed Use: Offices, Commercial space, Residential
6.	World Port Center	Original development	1998	2001	Mixed Use: Offices, Commercial space
7.	Hotel New York*	I. Original development II. Redevelopment	- -	1901 1993	H.A.L. Mixed Use: Hotel, Horeca and Event space
8.	Montevideo	Original development	1999	2005	Mixed Use: Offices, Commercial space, Residential
9.	New Orleans (Dame aan de Kade)	Original development	2006	2010	Mixed Use: Residential, Theatre, Exhibition space
10.	Boston & Seattle	Original development	2011	2017	Mixed Use: Residential, Commercial space
11.	The Sax (Havana & Philadelphia)	Plans	2015	~ 2023	Mixed Use: Residential, Commercial space, Hotel
12.	Nieuwe Luxor Theater	Original development	1996	2001	Theatre
13.	't Leidsche Veen*	I. Original development II. Redevelopment	- 1994	1898 1998	Warehouse Studenthousing
14.	Metro station Wilhelminaplein	Original development	1991	1997	Metro station
15.	Pakhuismeesteren	I. Original development II. Redevelopment	- 2015	1891 2017	Warehouse Mixed Use: Hotel, Commercial space
16.	Las Palmas (**)	I. Original development	1951	s	Mixed Use: Offices, Residential, Commercial space
		II. Redevelopment	2003	2008	Mixed Use: Offices, Residential, Commercial space
17.	Hotel Chicago	Plans	2018	~2021	Mixed Use: Hotel, Commercial space

Client	Project developer	Architect	Main Contractor	Investor
Municipality of Rotterdam KPN Telecom	William Properties	Renzo Piano	Corsmit Consulting Engineering	KPN Telecom & William Properties
KPN Telecom & REAL I.S AG		V8 Architects	Dura Vermeer	KPN Telecom & REAL I.S AG
MAB Development (now transferred to BPD Ontwikkeling) & OVG Real Estate & Municipality of Rotterdam	MAB Development & OVG Real Estate & Municipality of Rotterdam	OMA	Zöblin Nederland B.V.	FGH Bank N.V.
H.A.L.	-	Brinkman, Van den Broek & Bakema	-	H.A.L.
Port of Rotterdam Authority	Port of Rotterdam Authority	TomDavid Architecten	ERA Contour	Port of Rotterdam Authority
Provast	Provast	KCAP Architecten & Planners	-	-
Port of Rotterdam Authority	ING Vastgoed Ontwikkeling B.V.	Foster + Partners	HGB Utiliteitsbouw Regio West (now BAM Utiliteitsbouw B.V.)	ING Vastgoed Ontwikkeling B.V.
H.A.L.	-	Muller, Dorleever Fortuyn & Van der Tak	-	H.A.L.
Daan van der Have, Dorine de Vos & Hans Loois	Daan van der Have, Dorine de Vos & Hans Loois	-	-	Daan van der Have, Dorine de Vos & Hans Loois
ING Vastgoed Ontwikkeling B.V.	ING Vastgoed Ontwikkeling B.V.	Mecanoo	Besix	ING Vastgoed Ontwikkeling B.V.
Vesteda	Vesteda	Alvaro Siza & ADP Architecten	Besix	Vesteda
VOF Pier III (BPD Ontwikkeling & Synchroon)	VOF Pier III (BPD Ontwikkeling & Synchroon)	Van Dongen – Koschuch architects en planners	J.P. Van Eesteren	VOF Pier III & Municipality of Rotterdam
BPD Ontwikkeling, Synchroon & Municipality of Rotterdam	BPD Ontwikkeling, Synchroon & Municipality of Rotterdam	MVRDV	-	-
Municipality of Rotterdam Leidsche Veen N.V.	-	Bolles + Wilson	IBC Van Hoom Utiliteitsbouw	Municipality of Rotterdam
Stadswonen Rotterdam	Leidsche Veen N.V. Stadswonen Rotterdam	C.V. Seem & Van Rassel Hornan, Lobato & Yanovskhinsky	-	Leidsche Veen N.V. Stadswonen Rotterdam
RET Rotterdam (Municipality of Rotterdam)	RET Rotterdam (Municipality of Rotterdam)	Moshé Zwarts en Rein Jansma	Gemeentewerken Rotterdam	RET Rotterdam (Municipality of Rotterdam)
Pakhuismeesteren van de Thee Municipality of Rotterdam & Aannemersbedrijf Van Agtmaal (subsidiary of VolkerWessels)	-	Fumi Hoshino AWG architecten	-	Pakhuismeesteren van de Thee Municipality of Rotterdam & Aannemersbedrijf Van Agtmaal (subsidiary of VolkerWessels)
H.A.L.	-	Van den Broek & Bakema	-	H.A.L.
OVG Real Estate & OBR (Ontwikkelingsbedrijf Rotterdam, now Stadsonwikkeling)	OVG Real Estate & OBR	Bentham & Crouwel Architecten	Strukton - Jurriëns Bouw	Amundi Immobilier
WestCord Hotels	WestCord Hotels	Team V Architectuur	-	WestCord Hotels

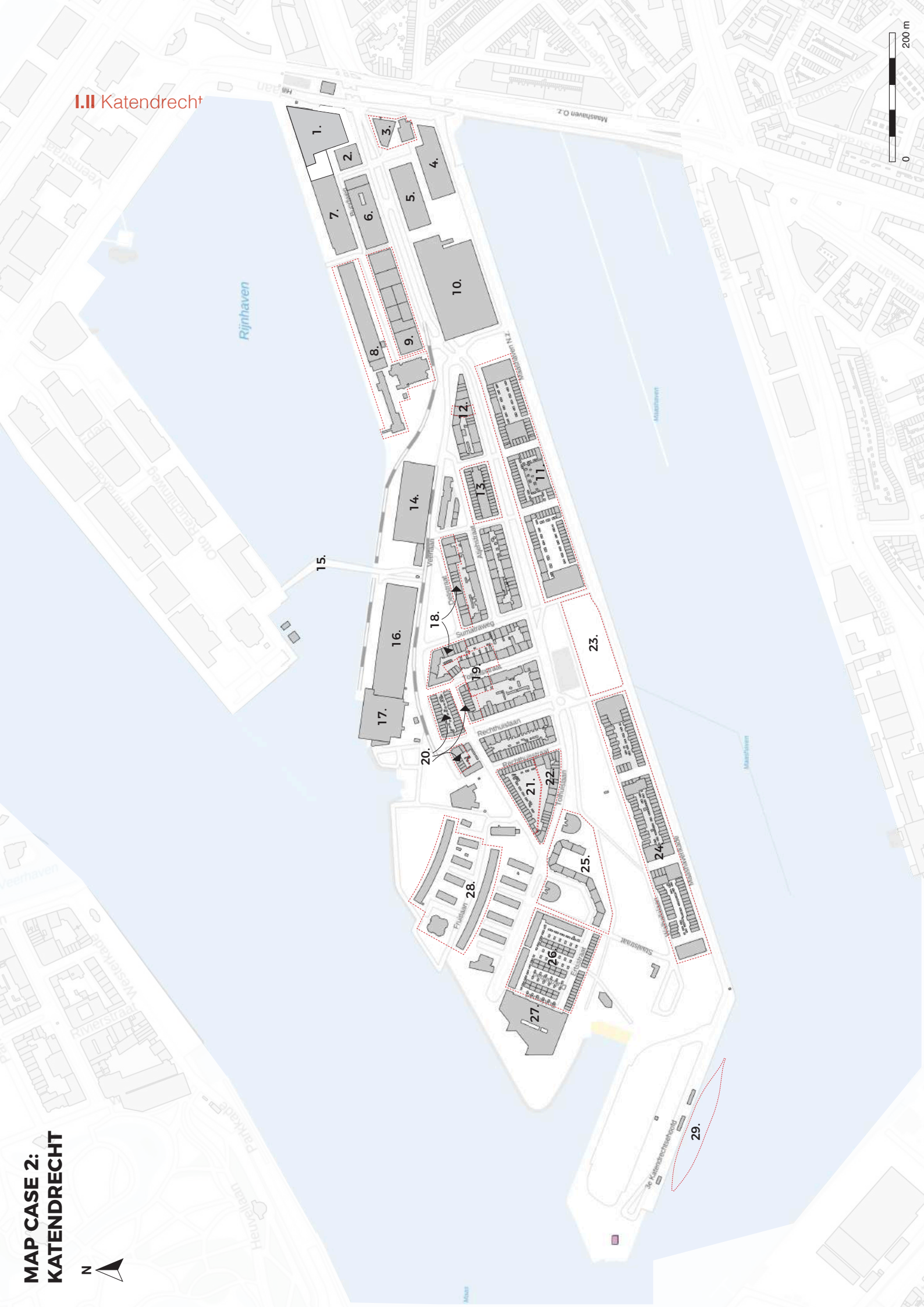
\* National monument  
 \*\* Municipal monument  
 \*\*\* Floating monument (an unofficial monument)  
 # Plot  
 # Area



MAP CASE 2:  
KATENDRECHT



III Katendrecht





Plot	Name	Status	Start reporting	Completion	Program
1.	Residential tower & Jumbo & Van Accor Hotel	Plans	2018	~2021	Mixed Use: Commercial space, Residential, Hotel
2.	Pakhuis Santos*	I. Original development	1901	1903	Warehouse
	II. Stillwerk	Plans	2018	~ 2021	Mixed Use: Department store, Residential
3.	Temporary Jumbo	Original development	2017	2018	Grocery store
4	Musa (MFA Katendrecht)	Original development	2013	2015	Mixed Use: Schools, Residential
5.	Cobana	Construction phase	2014	~2019	Mixed Use: Residential, Commercial space
6.	De Bund	Plans	2019	~ 2022	Mixed Use: Residential, Commercial space
7.	Bay House	Plans	2017	~ 2020	Mixed Use: Residential, Commercial space, Hotel
8.	Meelfabriek Latenstein* (Codrloo)	Original development	-	1964	Factory
9.	Various industries	-	-	-	-
10.	De Groene Kaap	Construction phase	2017	~ 2020	Residential
11.	Laankwartier	Original development	2006	2010	Residential
12.	Zes Pandjes	Redevelopment	2012	2014	Mixed Use: Residential, Commercial space
13.	Kaapvaarder	Original development	2015	2017	Mixed Use: Residential, Commercial space
14.	FENIX-loods I	I. Original development	1916	1922	Warehouse
	II. Fenixlofts	II. Redevelopment	2009	2019	Mixed Use: Residential, Commercial space
15.	Rijnhavenbrug (Tippelaar)	Original development	2009	2012	Pedestrian and cycle Bridge
16.	FENIX-loods II	I. Original development	1916	1922	Warehouse
	II. Fenix Food Factory	II. Redevelopment	2013	2014	Food Factory
17.	Provini! Fabriek	-	-	-	-
18.	Deldjein	Redevelopment	-	2009	Mixed Use: Residential, Commercial space
19.	Tolhuispoort	Original development	-	1979	Residential
20.	Kaap Belvédère (BVD)	Redevelopment	2012	2015	Residential
21.	Kaapseveer	Redevelopment	-	2011	Residential
22.	De Driehoek (kluswoningen)	Redevelopment	2007	2010	Residential
23.	Havenkwartier	Plans	2018	~ 2022	Residential
24.	Parkkwartier	Original development	-	2010	Mixed Use: Residential, School, Church
25.	Katendrechtsehof	Original development	-	1983	Residential
26.	2e Katendrechtse Hoofd	Original development	-	-	-
27.	Clix	Original development	1983	1987	Residential
28.	1e Katendrechtse Hoofd	Original development	-	-	-
29.	ss Rotterdam***	I. Original development	1955	1959	Passenger ship and Cruise ship
		II. Redevelopment			

Client	Project developer	Architect	Main Contractor	Investor
Frame Vastgoed   B.V. & Jumbo Supermarkten & Borealis Hotel Group	Frame Vastgoed   B.V.	-	-	Frame Vastgoed   B.V. & Jumbo Supermarkten & Borealis Hotel Group
N.V. Blauwhoudenveen	-	J.P. Stok Wzn & J.J. Kanters	-	N.V. Blauwhoudenveen
Stilwerk	-	RHWZ Architecten & Wessel de Jonge Architecten BNA BV Jumbo Supermarkten	-	Stilwerk
Jumbo Supermarkten	Jumbo Supermarkten	Jumbo Supermarkten	BUKO Huisvesting	Jumbo Supermarkten
Stichting WoonCompas, Municipality of Rotterdam, Scholengemeenschap de Passie & LMC Voortgezet Onderwijs	Stichting WoonCompas	Diederendrix Architecten	Koninklijke BAM Groep	SPF Beheer & Municipality of Rotterdam
Heijmans Vastgoed B.V.	Heijmans Vastgoed B.V. & IC Nederlands B.V.	Rijnbout	Heijmans Woningbouw B.V.	Heijmans Vastgoed B.V. & IC. REIM
BPD Ontwikkeling & Van Wijnen Groep	BPD Ontwikkeling & Van Wijnen Groep	KCAP Architects&Planners	-	BPD Ontwikkeling & Van Wijnen Groep
Frame Vastgoed   B.V.	Frame Vastgoed   B.V.	Joke Vos Architecten	Van Agimaal B.V. (subsidiary of Voll Frame Vastgoed   B.V.	Frame Vastgoed   B.V.
Centrale der Nederlandse Verbruikscoöperaties	-	J.J.M. Vegter	A. Aronsohn	Centrale der Nederlandse Verbruikscoöperaties
Altera Vastgoed	Stebu Transformatie	Bureau Massa	Stebu Bouw	Altera Vastgoed
De Nieuwe Unie (now Woonstad Rotterdam)	De Nieuwe Unie	Claus en Kaan Architecten (now KAAAN Architecten)	Gebr. Verschoor Bouw- en Aannemingsbedrijf B.V.	De Nieuwe Unie
Jeroen Hoorn	Jeroen Hoorn	bureau Jeroen Hoorn	Mudde Bouw- en Aannemingsbedrijf Jeroen Hoorn B.V.	Jeroen Hoorn
Woonstad Rotterdam	Woonstad Rotterdam	BTR Architectuur + Bouwkunde B.V.	Bouwbedrijf Frans Vink en Zonen B.V.	Woonstad Rotterdam
H.A.L. (Holland-Amerika Lijn)	-	C.N. Van Goor	unknown	H.A.L.
Heijmans Vastgoed B.V.	Heijmans Vastgoed B.V.	Mei architects and planners	Heijmans Woningbouw B.V.	unknown
OBK (Ontwikkelingsbedrijf Rotterdam, now Stadsontwikkeling)	OBK	Quist Wintermans Architects	Colijn Belon- en Waterbouw B.V. & Constructiebedrijf Hillebrand B.V.	Municipality of Rotterdam
H.A.L. (Holland-Amerika Lijn)	-	C.N. Van Goor	unknown	H.A.L.
Tsjonne Zijlstra	Tsjonne Zijlstra, Firma Bijle, CiderCider, Firma Bootj en Rechtstreek, Jordy's Baker, Stielman Koffiebranders, Municipality of Rotterdam & Heijmans Vastgoed B.V.	-	-	-
Stichting Droom en Daad	Stichting Droom en Daad	Bureau Poiderman & MAD Architects	-	Stichting Droom en Daad
De Nieuwe Unie (now Woonstad Rotterdam) & OBR (now Stadsontwikkeling)	De Nieuwe Unie & OBR	Van Schagen Architects	Aannemersbedrijf Musters B.V. & BAM Woningbouw B.V. (now BAM Wonen B.V.)	De Nieuwe Unie & OBR
Onze Woongemeenschap (now Woonstad Rotterdam)	Onze Woongemeenschap	A. Van Wijngaarden	Martens Aannemersbedrijf B.V.	Onze Woongemeenschap
Woonstad Rotterdam	Woonstad Rotterdam	BTR Architectuur + Bouwkunde B.V. & Joke Vos Architecten	Gebr. Verschoor Bouw- en Aannemingsbedrijf B.V.	Woonstad Rotterdam
Woonstad Rotterdam	Woonstad Rotterdam	Ruoff Architecten	Gebr. Verschoor Bouw- en Aannemingsbedrijf B.V.	Woonstad Rotterdam
De Nieuwe Unie (now Woonstad Rotterdam) & Kopersvereniging De Driehoek	De Nieuwe Unie & Kopersvereniging De Driehoek	SAR Architecten	BAM Woningbouw B.V. (now BAM Wonen B.V.)	Kopersvereniging De Driehoek
Heijmans Vastgoed B.V.	Heijmans Vastgoed B.V.	VMX Architects	Heijmans Woningbouw B.V.	Syntus Achmea Real Estate & Finance
Proper-Stok Groep B.V. (now acquired by Heijmans N.V.)	Proper-Stok Groep B.V.	Geurst & Schultze Architects	Heijmans Woningbouw B.V.	-
-	-	C. Weeber	-	-
-	-	Inbo	Slokker Bouwgroep B.V.	-
Onze Woongemeenschap (now Woonstad Rotterdam)	Onze Woongemeenschap (now Woonstad Rotterdam)	-	-	-
H.A.L. (Holland-Amerika Lijn)	-	o.a. Van Tienhoven	RDM (Rotterdamsche Droogdok Maatschappij N.V.)	H.A.L.
Stichting Behoud Stoomschip Rotterdam	Port of Rotterdam Authority & Rederij De Rotterdam B.V. (which eventually only existed of Stichting Woonbron)	-	Port of Rotterdam Authority & Rederij De Rotterdam B.V.	Port of Rotterdam Authority & Rederij De Rotterdam B.V.



MAP CASE 3:  
MERWE- VIERHAVENS

Merwe-Vierhavens



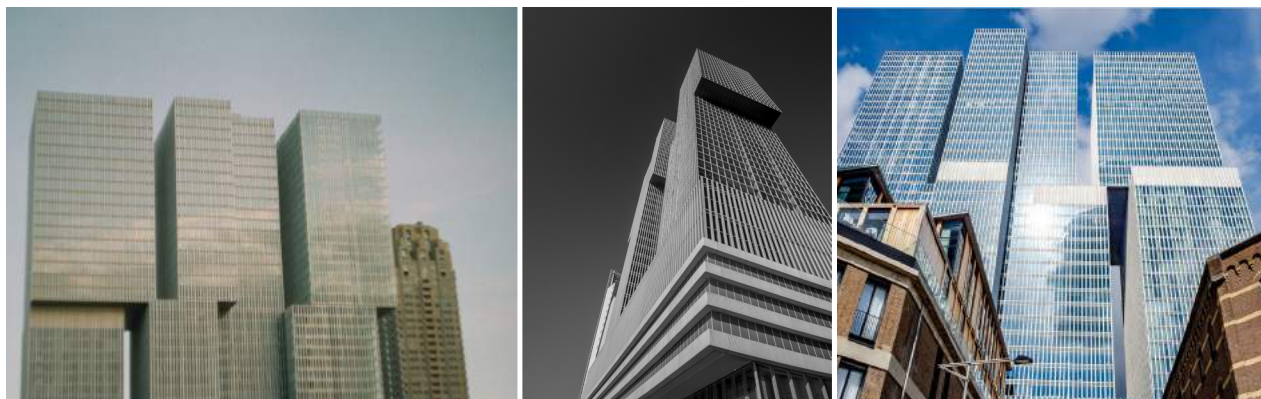


Plot Name	Status	Start reporting	Completion	Program	Client	Project developer	Architect	Main Contractor	Investor
1. Marconiship (Marconia)	Focus area	2015	2020	Space to experiment for temporary projects and initiatives that focus on a wide audience	Stadshavens Rotterdam; Gebiedsteam M4H - for details, see individual projects				
2. Energiecluster	Focus area	2015	2020	'Productecampus' in for instance the manufacturing and cleantech industry	Stadshavens Rotterdam; Gebiedsteam M4H - for details, see individual projects				
3. Europoint	Focus area	2015	2020	'Medische hotspot' where knowledge development and entrepreneurship goes hand in hand	Stadshavens Rotterdam; Gebiedsteam M4H - for details, see individual projects				
4. Ferro	Focus area	2015	2020	Ferrogashouder becomes a location for events in the field of arts, culture, music and multimedia	Stadshavens Rotterdam; Gebiedsteam M4H - for details, see individual projects				
5. Vierhavenblok	Focus area	2015	2020	'Maakkwartier' with cross-overs between large en smaller companies	Stadshavens Rotterdam; Gebiedsteam M4H - for details, see individual projects				
6. HaKa gebouw*	I. Original development	-	1932	Wholesale office	HAKA (Coöperatieve Groothandelsvereniging De Handelskamer)	-	H.F. Mertens & J. Koeman	-	HAKA
	II. Redevelopment	2010	2014	Campus for cleantech activity	Estrade Projectontwikkeling VOF	Estrade Projectontwikkeling VOF	Rijnbout & W. De Groot	Dura Vermeer	Vestia
	III. Redevelopment	2014	2018	Campus for cleantech activity	Dudok Groep Dordrecht	Dudok Groep Dordrecht & Dudok Groep Rotterdam	Wessel de Jonge bna bv	Many small contractors	Dudok Groep Dordrecht & Dudok Groep Rotterdam
7. I. Poortgebouw Thomsen's Haven-bedrijf**	I. Original development	~ 1920	1948	Galehouse and sheds	Thomsen's Havenbedrijf	-	Brinkman & Van den Broek	-	Thomsen's Havenbedrijf
II. Vertrekhal Oranjelijn**	II. Redevelopment	2003	2008	Coffee roasting	Koffiebrander Rob Kooij	Rob Kooij	MADE Architects & Beysens & Ter Veer	Rob Kooij	Rob Kooij
8. Katoenveem*	I. Original development	-	1920	-	N.V. Katoenveem	N.V. Katoenveem	J.J. Kanters	-	N.V. Katoenveem
9. Old railway tracks	II. Redevelopment	-	-	-	Stichting Droom en Daad	Stichting Droom en Daad	-	-	Stichting Droom en Daad
10. Keilepand	Redevelopment	2015	2016	Offices	GROUP A, Rotterdam	GROUP A, Rotterdam	Bekker Adams Architecten	Cordeel Nederland B.V.	-
11. Floating farm	Original development	2016	2018	Farm	Uit Je Eigen Stad, Courage (from LTO and NZO) & Beladon	Uit Je Eigen Stad, Courage (from LTO and NZO) & Beladon	Architectenbureau Goldsmith	Benecke	Private investments and shareholder Stadshavenfonds
12. De Fruitvis	Original development	-	1948	Expedition office	Erkelens, Cooke & Marcus				
	Redevelopment	-	-	Mixed Use: Event location, commercial space	Martin van Rijn	Martin van Rijn	-	Martin van Rijn and team	-
13. Keilewerf	Redevelopment	-	2014	Mixed Use: Factories, offices	Stichting Treehouse (now Keilewerf B.V.)	Stichting Treehouse	-	-	-
14. Studio Roosegaarde	-	-	1936	Glass factory					
	-	-	2015	Atelier					
15. Atelier van Lieshout (BRUTUS)	Original development	1995	1995	Atelier	Atelier van Lieshout	Atelier van Lieshout	-	-	-
16. Europointorens (Marconitoren / Lee towers)	I. Original development	-	1975	Offices	NV Handelmaatschappij v/h Overbeek & Co	NV Handelmaatschappij v/h Overbeek & Co	SOM (Skidmore, Owings and Merrill)	-	Verwaltung Vierundfunfzigste Sachwert Rendite-Fonds Holland & Caeels Bank Deutschland
	II. Redevelopment	2016	2019	Mixed Use: Residential, commercial space	City Pads (onderdeel Foolen & Reijis vastgoed) en Bakkers & Ten Brinke Investments;	Foolen & Reijis Bakkers   Hommen Waerdevest; City Pads	Diederendixx Architectuur & Stedenbouw	Kondor Wessels & TB3	Bakkers & Ten Brinke Investments; Bakkers   Hommen Waerdevest
17. Kantoorpand Keileweg	Redevelopment	2015	2016	Offices	GROUP A, Rotterdam	GROUP A, Rotterdam	Bekker Adams Architecten	Cordeel Nederland B.V.	Jan van de Brink's Im-en Exporthandel & Velleman en Tas
18. Citrusvelling	-	1951	1955	Auction Building	Rotterdamse Citrusvelling B.V.	-	H.A. Maaskant en P.W. van Dommelen	-	-
	-	2019	-	Event location	Havenbedrijf Rotterdam	Koers Groep B.V.	-	-	-
X. Dutch Wind Wheel	Original development	2016	~2025	Mixed Use: Public space, Apartments, Hotel, Commercial space	Windwheel Corporation (consisting of BLOC, DoepelStrijkers & Meysters)	Arup, BAM, Delatras, Dura Vermeer, ECN, Eneco, Evdes, Siemens, SPIE & TNO	DoepelStrijkers & Arup	-	Project developers, Municipality of Rotterdam, Ministry of Economic Affairs, Province of South-Holland & Metropoolregio Rotterdam Den Haag



## Appendix II. Impressions

### II.1 Wilhelminapier



De Rotterdam



Erasmusbrug



Hotel New York



Montevideo







**(KPN) Toren op Zuid**



**Las Palmas**



**New Orleans**



**Nieuwe Luxor Theater**



## Sources

Numbered from left to right, top to bottom:

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2. <https://bit.ly/2HQZsLq>
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1. <https://bit.ly/2Xc0fdZ>
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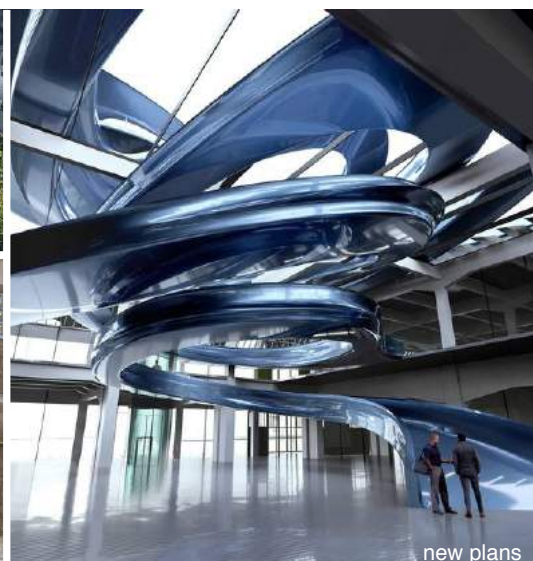
## II.II Katendrecht



Deliplein



Fenix Loods I



Fenix Loods II





**Rijnhavenbrug**



**ss Rotterdam**



**Theater Walhalla**



**Pakhuis Santos**



currently new plans



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Numbered from left to right, top to bottom:

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- https://www.funda.nl/nieuwbouw/rotterdam/project-40593750-fenix-lofts-i/

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## II.III Merwe-Vierhavens



HaKa gebouw



Katoenveem



Keilepand



Ferro







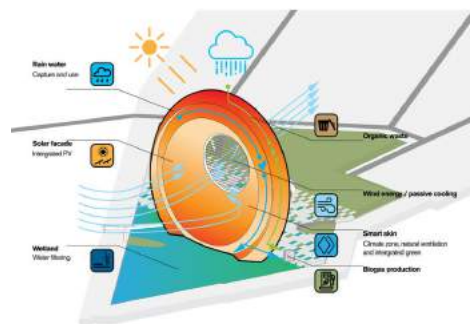
Europointtorens



Floating Farm



Dutch Windwheel





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# Appendix III. Iconic states

## III.I Wilhelminapier

### De Rotterdam

I. Attractive by experts	De Rotterdam could be considered a high profile and prestigious project by experts in the field. The project is very notable as well as noticeable (I.I), because of its unique façade and shape and moreover because of its huge size. De Rotterdam is the largest building of the Netherlands, because of its 162.000m <sup>2</sup> surface. Moreover, it is designed by Rem Koolhaas, world famous starchitect of the well known architectural firm OMA (De Rotterdam, n.d.) (I.II).	✓
II. Attractive by public	The project has been the object of discussion for many years now (II.II). Not only because of its unique design but also because of its unique process, as the development took sixteen years (Fig. 15). Moreover, the building is called a vertical city, one of the first ones in the Netherlands. Therefore, it is partly accessible by everyone. On tourist websites, it is called 'an icon in the field of architecture' (Rotterdam Tourist Information, 2013) and every weekend, one-hour tours through the building are organised because it is so attracting (II.III). According to their website, the building even has responsibility for a quarter of the visitors of the Wilhelminapier (De Rotterdam, n.d.).	✓
III. Identity & unicity	One could say that De Rotterdam has a symbolic value because of its recognisable shape. One could also say that the building has a so-called postcard value (Verheul, 2012). The building has a logo formed by its shape, which makes the project reducible to the size of a stamp. Moreover, De Rotterdam is being illustrated many times at postcards of the city (II.III).	✓
IV. Catalysing effects	Oudenaarden and Vroegindewei (2015) concluded that the construction of this large office complex for various governmental departments, has been an important development for the surrounding ones at the Kop van Zuid. They also mention that this development was meant to be a catalyser so as to convince other investors of developing at the Kop van Zuid as well. You could say that the development of this complex exactly matches Doucet & Van Weesep's theory about iconic projects, as it was meant to <i>create a safe-haven for further investments</i> (2011, p.100). De Rotterdam therefore is considered a trust gaining catalyser (IV.III)	✓

### Erasmusbrug

I. Attractive by experts	The Erasmusbrug is a bridge designed by Ben van Berkel, starchitect of the well-known architectural firm UN Studio (I.II). A few designs have been made and in the end, the most expensive one has been chosen. Costs: €165 million. The municipality chose for the bridge with the most charisma. This bridge gives people a reason to go the South of Rotterdam and truly had the ability to become an icon (Top010, 2013) (I.I).	✓
II. Attractive by public	The Erasmusbrug has a very recognisable shape due to the one-armed 139 meters high steel pylon which is image-determining. The pylon splits into two parts on both side of the road and stretches a row of 40 steel cables across the 800 meter bridge. It has a symbolic and postcard value because of its recognisable shape. Moreover, it has a postcard value because of its recognisable shape which is illustrated on postcards of Rotterdam many times (II.III). In addition, the Erasmusbrug is also called de Zwaan/the Swan (II.I).	✓
III. Identity & unicity	The bridge has been a prerequisite for the dual purpose of the Master Plan: it needed to provide more room for the city centre and by involving South of Rotterdam with the centre, the divided city should come to an end (Oudenaarden & Vroegindewei, 2015) (III.II; III.IV). Moreover, its iconic value is verified in a literature paper of De Jong & Annema for the European Transport Conference: "Its main goal was not to solve a traffic problem, or to expand the existing network. One of the main reasons for constructing is that the bridge should function as a landmark" (2010, 11-13 October, p.1) (III.III).	✓
IV. Catalysing effects	The Municipality of Rotterdam had faith in the bridge development. They were convinced of the fact that this investment would be earned back by the enormous attention it would generate in the country, but also by visitors from abroad. Everyone would want to work and live at the Kop van Zuid, partly due to the Erasmusbrug. This trust was the basis for the national and municipal governments and businesses to invest large sums of money in the Kop van Zuid (Oudenaarden & Vroegindewei, 2015). The Erasmusbrug is therefore considered a public attracting as well as trust gaining catalyser.	✓

### Hotel New York

I. Attractive by experts	The Masterplan of the Wilhelminapier consists of three long building strips, of which the two outer strips consist of high-rise buildings. Many projects on the Wilhelminapier are thus high-rise buildings. At the end of the middle strip, Hotel New York is located which has only got four floors. It is located at the very end of the pier, which provides the best view over the Maas of all plots. Because of its rich design in Jugendstil from 1901, Hotel New York truly stands out in the currently very modern looking Wilhelminapier (I.I). Moreover, Hotel New York is protected as a National Monument. Because of this all, Hotel New York is considered a prestigious building.	✓
II. Attractive by public	According to Oudenaarden & Vroegindewei, Hotel New York functions as a very successful attraction for the Kop van Zuid. It is considered a great success since it opened in 1993 (2015). Moreover, Hotel New York is subject to the debate for 25 years already. It attracts many tourists but also inhabitants of Rotterdam since 1993. People generally respect the guts and the courage that the entrepreneurs showed by starting this project at the time the Wilhelminakade was still abandoned and considered unattractive. (§4.2.3). Newspaper Trouw sees the hotel as the switch of Rotterdam becoming a cool city that one has to visit (Van der Kaaij, 2018, May 4) (II.II; II.III).	✓
III. Identity & unicity	In 1901, the project has been built for being the headquarters of the Holland-Amerika Lijn. Many supporting buildings were constructed on the Wilhelminapier too. Just a few historical buildings on the pier have been saved and were consequently transformed and re-used. The former headquarters of the HAL, which now is hotel and restaurant Hotel New York, has been the first redevelopment on the pier since the presence of the Masterplan for the Kop van Zuid. The building has a symbolic value due to its historical meaning, accompanied with many historical and memorable moments. Hotel New York provides identity to the Kop van Zuid with its historical meaning and appearance (III.IV).	✓



- |                           |   |   |
|---------------------------|---|---|
| IV.<br>Catalysing effects | Hotel New York has been the first development on the Wilhelminapier since the redevelopment plans and has substantially functioned as a catalyst for many developments that followed, even though the rest of the area was still abandoned. It even is, according to Claassen, Daamen and Zaadnoordijk, a “historie oproepende aanjager” (2012, p. 59) (IV.IV). Hotel New York is therefore considered a history calling catalyser. | ✓ |
|---------------------------|---|---|

## Nieuwe Luxor Theater

- |                             |  |   |
|-----------------------------|--|---|
| I.<br>Attractive by experts | The theatre is located at an iconic location, situated at the water of the Rijnhaven, the start of the Erasmusbrug and metro station Wilhelminaplein. The latter however was still under construction during the development of the theatre. It is designed by the Australian architect Peter Wilson. He even designed a font called ‘Luxor’ especially for this project which, amongst others, is used for the large neon ‘Luxor’ sign on the façade at the side of the metro station (Happel, 2001). This sign and the red façade makes the building notable (I.I).  | ✓ |
| II.<br>Attractive by public | Not much has been written about this development and design. Searching for the project via ‘Het Nieuwe Luxor Theater architecture’ on world’s biggest photo website Flickr for instance results in merely 13 photos uploaded by individuals, while ‘Erasmusbrug architecture’ has 4.000+ hits (II.II). Also, Het Nieuwe Luxor Theater does not have a generally known nickname. Many nicknames are based on the shape of the project (e.g. De Zwaan for the Erasmusbrug) or the process of the development (e.g. Blunderput for the parking garage under Museumpark) (II.I). None of those is the case for this project. Therefore, this project is considered not being respected and admired that much to be high-profile and prestigious according to the public. |   |
| III.<br>Identity & unicity  | Het Nieuwe Luxor Theater provides high-quality (inter)national theatre shows and concerts as well as musical, cabaret, dance and opera shows (Happel, 2001). With that, it provides cultural value for not only the surrounding area, but also the city and even the bigger region (III.IV).   | ✓ |
| IV.<br>Catalysing effects   | Het Nieuwe Luxor Theater functions as an attraction due to its function, as it provides many types of musicals, concerts, theatres and shows. The theatre is not only operating on the regional market, but also on the national market as the theatre is the third biggest one in the Netherlands, after Carré in Amsterdam and Chassé in Breda (Happel, 2001). The theatre is therefore considered a public attracting catalyser (IV.II).  | ✓ |

## Las Palmas

- |                             |  |   |
|-----------------------------|--|---|
| I.<br>Attractive by experts | Las Palmas is originally developed in 1953 for the Holland-Amerika Lijn by the Rotterdam architecture firm Van den Broek & Bakema, that designed many buildings for the city at that time, where it functioned as workplace. When the HAL moved to Seattle, it became a warehouse for the municipality. Consequently, it has been revived and renovated by Benthem & Crouwel architects and was completed in 2008. During the renovation, the qualities of the original building have been respected as much as possible. Moreover, a two story penthouse has been added on the existing pillars of the building (Rotterdam Architectuurprijs, 2010). Through the longitudinal glass façade, the building provides a view on the Maas river and the harbour. Moreover, it is a Municipal Monument and it has been nominated for the Rotterdam Architectuurprijs 2010 (Rotterdam Architectuurprijs, 2010) (I.II). | ✓ |
| II.<br>Attractive by public | Developer OVG Real Estate had the ambition to transform Las Palmas into an arts- and culture centre with national and international allure. The building now houses the Dutch photo museum, LP II space for urban culture and art centre SKVR. It strengthens the international character of the Wilhelminapier. The architecture has been discussed on Archdaily and Architectenweb, however those are news websites that are mostly visited by practitioners in the field of architecture (II.II; I.II). The building is also presented at Rotterdam Tourist Information, however that website is owned by the municipality and could thus be biased. It is promoting for its own benefits (II.III). There is not enough foundation to consider Las Palmas as a high-profile and prestigious project by the general public.  |   |
| III.<br>Identity & unicity  | Las Palmas, has been a workplace and later a warehouse since 1953. According to Benthem Crouwel Architects, the building is “(..) the only surviving witness on Wilhelmina Pier of the period of post-war revolution in building and Rotterdam’s rebirth as a city and for that reason is of great cultural-historical and architectural value” (Benthem Crouwel Architects, n.d.). Due to its history but also its current functions, the project provides cultural value to the city (III.IV).   | ✓ |
| IV.<br>Catalysing effects   | Las Palmas is a mixed-use building with several cultural and commercial functions as well as offices (Benthem Crouwel Architects, n.d.). The Dutch photo museum, the art centre and exhibition spaces daily attract citizens to the Kop van Zuid (IV.II). Las Palmas is therefore considered being a public attracting catalyser.  | ✓ |

## New Orleans

- |                             |  |   |
|-----------------------------|--|---|
| I.<br>Attractive by experts | New Orleans has been and still is the highest residential tower of the Netherlands (I.I). It is designed by Álvaro Siza who worked together with ADP Architecten. Álvaro Siza is a well-known Portuguese architect, whose buildings are admired throughout the whole world and who has won several international architectural prizes. Amongst others, he won the Pritzker Prize in 1992 for his whole oeuvre (I.II).  | ✓ |
| II.<br>Attractive by public | The mixed-use tower New Orleans received a nickname by the inhabitants of Rotterdam, namely: ‘Dame aan de Kade’. This refers to the penthouse ensemble on top that forms some sort of crown and the high-heeled, elegant glass base, which houses the theatre and film house LantarenVenster (Redactie Bouwwereld, 2010) (II.I) Due to its nickname and the fact that it was and still is the highest residential tower of the Netherlands, New Orleans is respectively considered high-profile and prestigious by both experts as the general public. | ✓ |
| III.<br>Identity & unicity  | Being the highest residential tower of the Netherlands for almost ten years, already provides identity and publicity to the area and the city of Rotterdam (Redactie Bouwwereld, 2010) (III.I; III.II).  | ✓ |



**IV.**  
Catalysing effects

After the construction of the high-rise residential building New Orleans, many other high-rise building constructions followed on the Wilhelminapier. Montevideo and KPN however were the first high-rise projects on the Wilhelminakade (§4.2.3). You could say that those buildings had a catalysing effect on surrounding developments. For the New Orleans building therefore, it is hard to say and considered not possible to appoint New Orleans as a catalyser for surrounding developments (IV.III). However, New Orleans houses 234 apartments with facilities such as an underground parking garage, guest houses and a health club and it houses multidisciplinary theatre and film house LantarenVenster, which in 2017 attracted 248.000 visitors to the Kop van Zuid (Kuyper, 2018, p. 2) (IV.II). New Orleans is therefore considered a public attracting catalyser.

✓

## Montevideo

**I.**  
Attractive by experts

With its 152 meters, Montevideo has been the highest residential tower of the Netherlands from 2005 until the realisation of residential tower New Orleans in 2010. The letter 'M' on top the building is an eight-metre-high weather vane. It represents of course the building's name, but also Rotterdam's maritime tradition and the Maas river. It has been designed by Francine Houben from architectural firm Mecanoo (Mecanoo, 2019a). For her design of Montevideo, she received two prizes: the International Highrise Award 2006 and the Dedallo Minosse 2006. The Montevideo development thus is appreciated by experts from the field (Mecanoo, 2019b).

✓

**II.**  
Attractive by public

A nickname for Montevideo is unknown (II.I). Montevideo is not so much found on news websites and city branding documents and websites to attract the public either (II.II; II.III). As a nickname and branding of the building should be easy accessible in order to be able to reach the big public, Montevideo is not considered high-profile and prestigious by the public.

**III.**  
Identity & unicity

Montevideo has been considered unique due to its height, however that consideration is considered temporary (III.I; III.II). At this moment in time, buildings in Rotterdam are not automatically considered unique as Rotterdam is now known for its high-rise buildings. The ensemble of high-rise buildings on the Kop van Zuid is definitely unique in the Netherlands. When looking at this project only however, its uniqueness or identity is not demonstrable enough to verify the third condition.

**IV.**  
Catalysing effects

About the trust gaining effect (IV.III), the same as for New Orleans holds for the Montevideo building. Moreover, no other catalysing effect are demonstrable for the Montevideo building. Neither the requirements for the fourth condition thus have been met.

## KPN Toren op Zuid

**I.**  
Attractive by experts

The KPN Toren op Zuid, located on the Belvédère plot, is designed by famous Italian starchitect Renzo Piano and completed in 2000 (I.II). From 2016 until 2018 it is transformed by V8 Architects (V8 Architects, n.d.) (§4.2.3).

✓

**II.**  
Attractive by public

Despite the lightning and sloping façade, the KPN Toren op Zuid is not providing a demonstrable amount of attention and interest from the public (II.II). A reason for that could be that there is no commercial function in the building that attracts people who do not work for KPN. Moreover, a nickname for the KPN Toren op Zuid created by the public has not been found (II.I). As lots of attention, interest and admiration from the public can not be confirmed, the KPN Toren op Zuid is not considered high-profile and prestigious according to the general public.

**III.**  
Identity & unicity

The KPN Toren op Zuid is the first tower and one of the first new buildings on the Wilhelminapier since it redevelopments. Amongst others, the development of the KPN Toren op Zuid was the start of the master plan realisation that was designed for the Kop van Zuid. The building is located right next to the famous Erasmusbrug and known for its sloping façade (V8 Architects, n.d.) (III.I; III.II). The lights on the front facade turn the building into an interactive animation board of 90x40 meters (Rotterdam Pages, n.d.). They are eye-catching elements that are visible from the North of Rotterdam, the Erasmusbrug, the Zuidkade on the Kop van Zuid and Noordereiland. Therefore, the third condition of providing a sense of uniqueness and identity to the environment could be verified.

✓

**IV.**  
Catalysing effects

After de renovation of the HAL headquarters into Hotel New York, The World Port Center, KPN Toren op Zuid and the theatre Het Nieuwe Luxor have together been one of the pioneers on the Wilhelminapier (§4.2.3). These pioneers showed their trust in the old harbour area and had the courage to develop (IV.III). Trust gaining: it was the first high-rise building on the Wilhelminapier after which many followed. KPN Toren op Zuid is therefore considered a trust gaining catalyser. Its location is also contributing to the catalysing effects of the project. The original name of the plot is 'Belvédère', what literally means 'beautiful view' in Italian architectural terms. The plot is named after that because its location which is on the South of Rotterdam, overlooking the North and the Erasmusbrug. Since 2018, the building has received a new name however: 'The Link', which points out the connecting part of KPN but also the North and South of Rotterdam (Rotterdam Pages, n.d.) (IV.I). Therefore, the KPN Toren op Zuid is also considered a meaning creating catalyser.

✓



## III.II Katendrecht

### Deliplein

- Old, existing buildings at the Deliplein, located in the heart of Katendrecht, have been given a new life by their re-designs and the allocation of a new program comprising restaurants, bars and cultural facilities. It is considered an extensive renovation of in particular the ground level, which contributes to the Deliplein functioning as the heart of Katendrecht (Rotterdam Architectuurprijs, 2010). The Deliplein has moreover been submitted by the public for the Rotterdam Architectuurprijs 2010 and is subsequently selected by the professional jury as an ensemble that shows the quality of Rotterdam architecture in all its forms (I.III) (Rotterdam Architectuurprijs, 2010). Therefore, the Deliplein is considered to be high-profile and prestigious by experts in the field. ✓
- I. Attractive by experts
- As said in condition I, the Deliplein has been nominated for the Rotterdam Architectuurprijs in 2010 by the public. The nominating public however is considered a specific public with a more than average interest in architecture, that does not speak for the general public (II.II; I.II). The project has also been used at Rotterdam Tourist Information, yet this is platform owned by the municipality of Rotterdam and therefore is considered biased as it promotes projects for the benefits of the city as a whole (II.III). As a result, there is not enough foundation to consider the Deliplein to be a high-profile and prestigious ensemble considered by the general public.
- II. Attractive by public
- Journalist Bart Dirks sees the triangular Katendrecht as a rough diamond: "Theater Walhalla, een Thais restaurant, een kooklab, een Franse table d'hôte, een yogastudio en - al sinds de jaren zeventig - Tattoo Bob." (Dirks, 2012, January 30). The old Fenix sheds are partially obstructing the view on the harbour and skyline of Rotterdam, however, at the same time they are enhancing the ambiance of Katendrecht (Dirks, 2012, January 30). It has formerly been a place which was characterised by sailors, prostitutes and drunk people, while the Deliplein nowadays is very trendy with more than ten different types of restaurants, many coffee bars and even a theatre: Theater Walhalla. Because of the varied program, it has something for all tastes. It is considered a unique place in Rotterdam that provides identity to the Kaap. ✓
- III. Identity & unicity
- The program manager of Woonstad thinks the renovation of the Deliplein functions as both a trust gaining and public attracting catalyst: "De renovatie van het Deliplein was één van de belangrijkste projecten die tussen 2005 en 2008 plaatsvond en vormde een belangrijke katalysator voor de verdere vernieuwing van de wijk." (E. Hoeflaak in Van der Ent, 2015, p. 65). "Je hebt mensen nodig die durven te investeren in een restaurant of theater. De oprichters van het theater Walhalla zijn een goed voorbeeld van pioniers die het aandurfden om zich te vestigen op het Deliplein en publiek trokken naar Katendrecht" (E. Hoeflaak in Van der Ent, 2015, p. 65). The Deliplein is therefore considered a public attracting as well as trust gaining catalyst (IV.II; IV.III). ✓
- IV. Catalysing effects

### Fenix Loods I (Fenix Lofts)

- I. Attractive by experts The Fenix Loodsen consists of two sheds. The first shed, Loods I, is currently being transformed into the so called 'Fenix Lofts'. These are designed by Mei architects and planners (Appendix II). There is not enough foundation to consider the project to be prestigious as well as high-profile according to the experts in the field.
- II. Attractive by public The project has particularly attracted attention from the public and newspapers due to its delay, rather than due to the fact it is very much admired and respected. E.g. "Bewoners Fenixlofts moeten nog 2 jaar wachten op droomhuis" and "Kopers Fenixlofts krijgen schadevergoeding van bouwver" (Berkelder, 2017, December 12; Berkelder, 2018, December 03). Therefore, there is not enough foundation to consider the project to be prestigious according to the public either.
- III. Identity & unicity The rawness and robustness of the Fenix sheds is retained in the design of the new Fenix Lofts by utilising the industrial characteristics. This fits the character of the Rotterdam port city as well as Katendrecht. Moreover, the existing, historical construction of the shed and the new, modern construction on top of it reinforce each other. The redevelopment of this historical shed strengthens the identity of Katendrecht and Rotterdam and therefore meets the third condition (III.I; III.II). ✓
- IV. Catalysing effects With the development of 212 houses on Fenix Loods I, a new group of critical mass is attracted to Katendrecht. This is expected to give the area around Deliplein and the Rijnhavenbrug a boost. History calling catalysts 'generate historical awareness, but also offer space for contemporary elements' (IV.IV) (Claassen, Daamen en Zaadnoordijk, 2012, p. 59). Since this project is meeting these two characteristics, Fenix Loods I is considered to be a history calling catalyst. ✓

### Fenix Loods II (Fenix Food Factory + Landverhuizersmuseum)

- I. Attractive by experts Currently, the Fenix Food Factory is located in the old shed; Loods II. This shed has formerly been the longest shed of the world, with a length of 360 meters (Dirks, 2018, March 12). Since WO II however, it is no longer that long and split in two: Loods I and Loods II (§4.3.3). The lease contract of the Fenix Food Factory in Loods II expires on the 1st of January 2020. The owner, Stichting Droom en Daad, wants to redesign the shed into a landverhuizersmuseum; emigrant museum on the first floor (RetailTrends Media, 2018). The ground floor will remain as restaurant function, it however is unknown if the Fenix Food Factory will stay there (Berkelder, 2018, March 12). This museum is designed by MAD architects and consists of a theatrical round staircase and an atrium that is publicly accessible, connects the ground floor with the museum and the roof and offers a panoramic view (I.II; I.I). Moreover, a huge pigeon will be placed on the roof of the building, overlooking the east of Katendrecht (I.I)(I.III) (Architectenweb, 2018). It is planned to open in 2023 and whatever it will be, it promises to be a high-profile and prestigious architectural project on Katendrecht. ✓
- II. Attractive by public Loods II has deliberately been laid out with different second-hand couches and simple stands, in order to meet the lifestyle of the trendy, and most of the time high-educated, visitors who desire authenticity and healthy local food. Partly thanks to this, Loods II is one of the most attractive spots in Katendrecht (Van der Ent, 2015, p. 35). Moreover, it is used for several city branding purposes, e.g. as one of the front page covers of the municipal portal (II.II). The Fenix Loods II is with its current function and future plans, both considered to be respected and admired enough to meet this condition according to the public. ✓



<b>III.</b> Identity & unicity	Whether Fenix Loods II will remain as it is now or will transform into a museum with roof terrace accompanied with extravagant architectural elements, the project is/will be a demonstrable unique object in Katendrecht as well as the city as a whole (III.I; III.II). It is considered one of the biggest public attracting attractions in Katendrecht (IV.II) (Van der Ent, 2015, p. 35) and the new function will have a symbolic value for the city by transferring the history of the place (III.IV).	✓
<b>IV.</b> Catalysing effects	The Fenix Food Factory is well responding to the metropolitan trend of reusing old industrial buildings for restaurant and bar facilities (IV.IV). As mentioned before, it is even considered one of the biggest public attracting attractions in Katendrecht (IV.II) (Van der Ent, 2015, p. 35). Therefore, the Fenix Loods II is, at least at this moment in time, considered to be a public attracting and meaning creating catalyser (IV.II; IV.IV).	✓

## Pakhuis Santos

<b>I.</b> Attractive by experts	Pakhuis Santos has originally been completed in 1903 for the storage of Brazilian coffee 'Santos', in a sober eclectic style. For a while, it has even been the highest warehouse in Rotterdam (24,5 m.). Moreover, it is a national monument (Monumenten.nl, n.d.). Pakhuis Santos is a detached warehouse in pure, sober and eclectic style. The facades are both symmetrical and identical and consists of motifs strongly influenced by H.P. Berlage, such as segmental arches, accentuated corner blocks, lintels and decorative borders of natural stone and plasterwork (I.I) (Monumenten.nl, n.d.). It is considered highly notable and noticeable in comparison with the surrounding buildings on Katendrecht (I.I).	✓
<b>II.</b> Attractive by public	Despite the unique character of Pakhuis Santos in the area, the project is not providing a demonstrable amount of attention or interest from the public (II.II). A reason for that could be that there is no interesting function in the building that attracts people. However, this will be added by the German design department store 'Stillwerk'. According to current development plans, Pakhuis Santos will become a design centre (Kun jij de Kaap aan?, 2019). It is expected to become an imposing building that gets a crown on the roof by the addition of a floating golden layer (§4.3.3). by both these prestigious design plans and by its future function, where prestigious design articles will be showcased and sold. Pakhuis Santos is expected to become a project that gets a considerable amount of attention and interest from the public and newspapers. Therefore, Pakhuis Santos is considered to become both high-profile as well as prestigious according to not only experts in the field, but also the general public.	✓
<b>III.</b> Identity & unicity	Pakhuis Santos is a national monument, as it is an early twentieth century coffee warehouse that is considered of general interest because of its cultural- and architectural-historical and typological value (Monumenten.nl, n.d.). The symbolic value for the city is therefore considered demonstrable and condition III is met (III.IV).	✓
<b>IV.</b> Catalysing effects	The responsible architect says that the historical characteristics of the building will be embraced while getting a modern program: "Het is een prachtig monumentaal pand dat we omarmen maar tegelijkertijd wel een bestemming krijgt in deze moderne tijd." (K. Renner in Kun jij de Kaap aan?, 2019). Therefore, the project is considered to become a history calling catalyser once redeveloped (IV.IV). Due to the unique new function in the city, a design warehouse, the project is considered to become a meaning creating catalyser in the area as well once redeveloped (IV.I).	✓

## Rijnhavenbrug

<b>I.</b> Attractive by experts	The Rijnhavenbrug is a bridge for slow traffic only, that is connecting Katendrecht with the Wilhelminapier since 2012. It is designed by Quist Wintermans Architecten (Appendix II). The bridge provides a route for cyclists as well as a route for pedestrians to stroll. It has places to sit, where one is able to enjoy the view and sun from the water. It has a recognisable shape, however does not compete with the iconic projects in its immediate vicinity due to its relatively small design. Its shape nevertheless does give a powerful visual expression to both the harbour, the Wilhelminakade as well as Katendrecht (I.I).	✓
<b>II.</b> Attractive by public	The Rijnhavenbrug is completed in 2015 and already has many nicknames: de Knik, de Krom, de Ja-knikker, de Troffel, de Rode Loper and de Hoerenloper (II.I) (Dirks, 2010, January 30). It gets attention and interest from the public and therefore, condition II is met as well.	✓
<b>III.</b> Identity & unicity	With the completion of the Rijnhavenbrug, a walk around the Rijnhaven has been made possible. When cross the bridge, one will notice the fascinating contrast between the Wilhelminapier and Katendrecht. When walking from Katendrecht to the Wilhelminapier, a more modern and impressive feeling arises. When walking from the Wilhelminapier towards Katendrecht, the human dimension returns. The different views provided by the bridge are considered to evoke a romantic feeling, taking into account the many love locks (Van der Ent, 2015). The Rijnhavenbrug provides identity to both Katendrecht, the Wilhelminakade and the harbour and is considered to have a symbolic value for the city (III.I; III.II; III.IV).	✓
<b>IV.</b> Catalysing effects	Especially on peninsulas, where only one entrance and exit exists, good connections are highly valuable to keep the area lively and attractive to visit. The bridge now shortens travel time between Katendrecht and the centre of Rotterdam, since the route via the Rijnhaven can now be cut off. By shortening travel time, visiting Katendrecht has been made more easy and accessible. Therefore, the Rijnhavenbrug is considered to function as a public attracting catalyser (IV.II).	✓



## ss Rotterdam

I. Attractive by experts	<p>The former flagship of the Holland America Line is relatively large: 228 meters long, 28 meters wide and 51 meters high (ss Rotterdam, n.d.). To improve the seaworthiness and speed of the ship compared to other ships, the ss Rotterdam got a elegant hull as well as a sharp, high bow. Two modern smoke channels have been placed next to each other and where there usually is a chimney, a large deckhouse was built at the ss Rotterdam (I.I). Much attention was paid to its interior design as well. Well-known architects and artists became responsible for the interior, that had to be both luxurious and functional (I.II). Arts and crafts played a major role in this. As so much attention has been paid to the design, the ship's profile is considered highly prominent and streamlined. This recognition has been demonstrated, amongst others, by the nomination of the ss Rotterdam for the Rotterdam architecture prize 2010 (I.III) (Rotterdam Architectuurprijs, 2010). Therefore, the ss Rotterdam is considered to be high-profile and prestigious by experts in the field.</p>	✓
II. Attractive by public	<p>On August 4, 2008 the ship returned to Rotterdam and docked at Katendrecht. That day, the quays were swarming with people from Hoek van Holland to Rotterdam, who wanted to experience the last voyage of the ship. A few was not able to stop their tears (ss Rotterdam, n.d.). It has since become one of the most popular attractions of the city (II.III). Moreover, the ss Rotterdam has been given a nickname which, amongst others, is La Grande Dame (II.I) (ss Rotterdam, n.d.). The appreciation of the public for the ss Rotterdam means that the second condition has been met as well.</p>	✓
III. Identity & unicity	<p>The former flagship has a rich history and is renowned for its cultural and historical value: by crossing the Atlantic Ocean to America, the ship made it possible to make <i>the journey to the new world</i> from 1956 (III.IV) (ss Rotterdam, n.d.). The ship symbolizes this history in a unique way, just like Hotel New York, and is providing identity to Katendrecht and Rotterdam (III.I; III.II).</p>	✓
IV. Catalysing effects	<p>Already in the opening year, the ship already attracted 600,000 visitors to Katendrecht (IV.II). In the weekend, these are mainly visitors who are going a day out or who are doing a weekend trip to Rotterdam. During the week however, the ship focuses more on businessmen (Kok, 2012). ss Rotterdam is therefore considered a public attracting catalyser.</p>	✓



# Appendix IV. Informed consent

## INFORMED CONSENT

*For the interviewees in the Graduation Research of Misha Gorter*

### CONCISE INFORMATION SHEET

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First of all, thank you very much for participating in my research. My name is Misha Gorter and for my graduation project of the master track 'Management in the Built Environment' at the Delft University of Technology, I am researching the conditions of iconic projects that could incentive developers to develop in brownfield areas. Through finding the conditions that could incentivise developers, the first preliminary steps in the direction of meeting the medium-long term housing demand in urbanised areas can be set in stone.

#### Research Background

The movement of society towards the urban environment is a global trend and nationally particular evident in Amsterdam, Rotterdam, Utrecht and The Hague, as one-third of the total Dutch population is expected to be living in these four major cities in 2030. Research however also shows that the market currently takes up solely a quarter of the Dutch housing demand within the city centres. This generates the need for cities to further develop their urban areas and therefore large transformation areas must be addressed. Taking into account the potential of brownfield sites in the Netherlands (23.476 hectares), these un(der)-utilised and often contaminated urban areas within existing cities deserve attention and priority. However, there is not enough knowledge available on operational level to stimulate their redevelopments.

As a response, the main goal of this research is to gain better understanding about what could incentivise initiators, usually private real estate developers, to redevelop brownfield areas. The conditions of iconic projects that can generate these incentivising spillovers will be explored. Consequently an advice will be drawn for future and contemporary brownfield redevelopments.

#### Research Method

The research project consists of three case studies: the Kop van Zuid, Katendrecht and Merwe-Vierhavens. These brownfields are all in a different phase of the redevelopment process. By comparing these redevelopments, a better understanding of how iconic projects could substantially incentivise initiators to redevelop brownfield areas could be obtained.

Former initiators of projects in one of the case study areas will therefore be interviewed. This will provide the data necessary to give answer to my sub-questions. These interviews consist of predefined questions, however additional questions may arise from your answers and there is opportunity for that. Whether you do not understand a question, require more elaboration on a certain topic or whether you have a question yourself, please do not hesitate to interrupt and ask. Also, you are totally free to leave certain questions unanswered because of confidential/personal reasons.

#### Data processing

The interview will be audio-recorded to ensure a smooth conversation without too many interruptions due to writing down the answers obtained. The raw data, so the audio-recordings, will be stored offline and will be accessible for the researcher only, and for study team by request. The raw data will be deleted once graduated. The transcripts will be deleted one year after graduation.

Your answers will remain private and will be processed anonymously: personal information such as name and place of living will not be used. Instead, your function and the organisation you work(ed) for will be mentioned in order to indicate what kind of persons have been interviewed.

The interview results are used for research purposes only.

The obtained data will be analysed by transcribing the audio-record and subsequent coding the interviews. This provides for the opportunity to discover patterns in the results and to compare the different cases with each other.



### **Withdrawal**

You are free to withdraw your consent at any time, without giving a reason. All obtained data will then be destroyed.

### **Study team**

*Student / Researcher:*

M. (Misha) Gorter

*Mentor team Delft University of Technology:*

W.J. (Wouter Jan) Verheul

H.T. (Hilde) Remoy

R.J. (Reinout) Kleinhans

*Mentor team Brink Management / Advies:*

T. (Tristan) Kunen

B. (Bas) Muijsson

### **Contact details**

Contact details for further information:

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## INFORMED CONSENT FORM - INTERVIEWEE

This informed consent form is meant for the interviewees that are participating in the graduation research of Misha Gorter. Please tick the appropriate boxes.

**Yes No**

### Taking part in the study

I have read and understood the study information dated 18/03/2019, or it has been read to me. I have been able to ask questions about the study and my question have been answered to my satisfaction. ☐ ☐

I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason. ☐ ☐

I understand that taking part in the study involves an audio-recorded interview which will be transcribed as text. The recording will be destroyed once the graduation thesis is finished and the subsequent transcript will be destroyed one year after the graduation thesis is finished. ☐ ☐

### Use of the information in the study

I understand that information I provide will be used for the graduation thesis and the corresponding presentation, unless indicated that certain information is confidential. ☐ ☐

I understand that personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team. ☐ ☐

I agree that my information can be quoted (anonymised) in research outputs. ☐ ☐

### Future use and reuse of the information by others

I give permission for the use of the graduation thesis results, that are partly based on the anonymised transcripts, to provide to be archived in the TU Delft repository, so it can be used for future research and learning. ☐ ☐

## Signatures

\_\_\_\_\_  
Name of participant

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



**INFORMED CONSENT FORM - INTERVIEWER**

This informed consent form is meant for the interviewer, Misha Gorter. Please tick the appropriate box.

**Yes   No**

**Information sharing**

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

**Signatures**

\_\_\_\_\_  
**Name of researcher**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**



# Appendix V. Interview protocol

## INTERVIEW PROTOCOL (Dutch)

Betrokken projectontwikkelaars en -manaers op de Wilhelminapier, Katendrecht en Merwe-Vierhavens

Datum: \_\_\_\_\_  
Locatie: \_\_\_\_\_  
Geïnterviewde: \_\_\_\_\_  
Organisatie: \_\_\_\_\_  
Project(en): \_\_\_\_\_

### ALGEMEEN: Introductie

---

- Graag vraag ik bij deze uw toestemming voor opname van dit interview.
- Start opname.
- Herhaling: Graag vraag ik bij deze uw toestemming voor opname van dit interview.
- Dan zullen we nu beginnen met het interview.

### DEEL I: Profiel en positie

---

- Wat is uw **huidige functie** binnen [organisatie]?
- Hoe zou u **[organisatie] omschrijven**?  
*Prompt: onafhankelijke / bouwende / investerende / gefinancierde ontwikkelaar; risico nemend; focus op niche product; specifieke benaderingsmethode; focus op de korte / lange termijn*
- **Vanaf wanneer en tot wanneer** raakte u betrokken bij de ontwikkeling(en) van [project(en)]?
- **Vanuit welke positie(s)** bent u betrokken geweest bij de ontwikkeling(en) van [project(en)]?
  - Is uw rol veranderd gedurende het/de project(en)?
- Wat was uw **rol in het besluitvormingsproces** van de ontwikkeling(en) van [project(en)]?

### DEEL II: Project opzet (wanneer betrokken bij meerdere projecten op de Wilhelminapier, kies één)

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- *Wat zijn de motieven van de verschillende typen projectontwikkelaars?*
- Kunt u beschrijven **hoe de beslissing werd genomen** om [project] te ontwikkelen op de Wilhelminapier?
  - Wat was gedurende de initiatieffase van [project] de **visie** van [organisatie] **op de Wilhelminapier**?
    - Hoe paste deze visie in de strategie van [organisatie]?
    - Hints: imago; positie in de markt*
    - Is deze visie gedurende het project nog gewijzigd?
  - Wat was de **visie** van [organisatie] **op [project]** gedurende de initiatieffase?
    - Hoe paste dat in de strategie van [organisatie]?
    - Hints: imago; positie in de markt*
    - Is deze visie gedurende het project nog gewijzigd?
    - Hoe werden niet-meetbare variabelen, zoals het imago van de plek, gewaardeerd in vergelijking tot meetbare variabelen, zoals bereikbaarheid en het aantal parkeerplekken?
    - Hint: cohesie van de niet-meetbare en de meetbare variabelen*
  - Hoe is deze visie **vertaald naar een concept** voor [project]?  
*Hint: meest geschikte oplossing voor deze locatie*
  - Hoe werd het concept onderbouwd met **kansen in de markt** die de **haalbaarheid** konden garanderen?  
*Hint: uitkomst marktanalyse vs. concept*
  - Heeft [organisatie] een **concurrentie analyse** gedaan voor de ontwikkeling van dit project?
    - Wat waren de resultaten?
    - Welk resultaat speelde de grootste rol bij de beslissing om de concurrentie aan te gaan?
    - Hints: onderscheidend door unieke visie; door lef te tonen; door innovatief te zijn*



- Hoe is [project] uiteindelijk **op de markt gezet**?  
*Hint: rekening houdend met gelijksoortige gebouwen die toen al bestonden of toen ook in ontwikkeling waren*
- Tot op welke hoogte zijn de geformuleerde **visies** door [organisatie] voor [project] en de Wilhelminapier **gerealiseerd**?
  - Had u dit verwacht?
  - Wat hebben jullie hiervan geleerd?  
*Hint: wat zou u de volgende keer anders doen?*
- Welke partij was in uw ogen uiteindelijk de **kartrekker van de ontwikkeling** van [project]?
  - Welke andere partijen waren essentieel voor de ontwikkeling van [project]?

### Deel III: Invloed van iconische projecten

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► *In hoeverre hebben iconische projecten invloed op de intentie van projectontwikkelaars om te ontwikkelen in het betreffende gebied?*

- In hoeverre neemt u de nabije aanwezigheid van **projecten die door zowel experts uit de praktijk als het publiek worden gezien als prestigieus en spraakmakend**, mee in de besluitvorming van een ontwikkeling in een transformatiegebied?  
*Hint: de Rotterdam; het Eye museum*
  - Waarom?
- In hoeverre neemt u de nabije aanwezigheid van **projecten die gebieden een gevoel van uniciteit en identiteit geven** mee in de besluitvorming van een ontwikkeling in een transformatiegebied?  
*Hint: de geschiedenis van Hotel New York*
  - Waarom?
- In hoeverre neemt u de nabije aanwezigheid van **een aanjager voor ontwikkelingen in de directe omgeving mee** in de besluitvorming om te ontwikkelen in een transformatiegebied?  
*Hint: de Erasmusbrug*
  - Waarom?
  - Zo ja, zelfs al is deze functie tijdelijk?  
*Hint: de Fenix Food Factory*
- De drie voorgenoemde eigenschappen zijn in mijn onderzoek de **voorwaarden** voor projecten **om iconische te zijn**. Kunt u zich hierin vinden?
  - Zo nee, wanneer zou u een project iconisch noemen?  
*Hint: Guggenheim Museum Bilbao, Sidney Opera House*
- Als gevolg van toetsing aan deze voorwaarden heb ik [case I / case II] bestempeld als iconische projecten op [case I / case II]. Zou u projecten willen elimineren of toevoegen aan dit lijstje?  
[case I] : *de Erasmusbrug, de Rotterdam, Hotel New York en New Orleans*  
[case II] : *Fenix Loodsen, de Rijnhavenbrug, Pakhuis Santos en de ss Rotterdam*  
[case III]: n.v.t.
  - Welke en waarom?
  - Denkt u hetzelfde te hebben geantwoord tijdens de initiatieffase van [project(en)]?
- Welk(e) project(en) heeft/hebben vanuit uw oogpunt gefungeerd als **anjaner voor de gebiedsontwikkeling** van de Wilhelminapier?
  - Waardoor denkt u dat dat door komt?

### ALGEMEEN: Afsluiting

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- Dat was de laatste vraag van het interview, is er nog iets dat u zou willen toevoegen?
- Heeft u aanbevelingen voor follow-up interviews met betrekking tot de ontwikkelingen op de Wilhelminapier?
- Hartelijk bedankt voor uw tijd en deelname!
- Einde opname.
- Gevolgen: de interview resultaten zullen worden gebruikt voor de beantwoording van twee deelvragen (zie blauw gemarkeerd)
- Uitwisseling van contactgegevens (e-mailadres en telefoonnummer) als dit nog niet gebeurd is, voor het geval er aanvullende informatie beschikbaar komt wat nuttig kan zijn voor het afstudeeronderzoek.
- Wanneer mijn afstudeeronderzoek is voltooid, deel ik de resultaten.



# Appendix VI. Interview analyses

## VI.I Wilhelminapier

**This Appendix contains confidential information.**

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## Appendix VII. Interview director Urban Development MoR

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## Appendix VIII. Presentation Riek Bakker

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# Appendix IX. Evaluation of the conclusions by internals

## Approach

Beste [interviewee],

Graag bedank ik u nog eens hartelijk voor het mogen afnemen van een interview voor mijn scriptie! Het afstudeeronderzoek loopt inmiddels op zijn einde: over 3,5 week zal ik het presenteren en verdedigen. Voordat het zo ver is, test en verrijk ik graag een gedeelte mijn resultaten door deze eerst (1) kort aan u voor te leggen en vervolgens (2) te vragen of deze naar uw ervaring ook overeenkomen met de praktijk. Hopelijk heeft u tijd om hier aan bij te dragen - naar inschatting zal dit 5 tot 10 minuten in beslag nemen.

### (1) Verkorte conclusie van het onderzoek:

Voordat antwoord wordt gegeven op de onderzoeksvraag "Welke condities van iconische projecten in Nederlandse brownfields kunnen projectontwikkelaars stimuleren om projecten te (her)ontwikkelen?" moet rekening worden gehouden met het feit dat iedere brownfield herontwikkeling afhankelijk van haar context verschillende belangen heeft. Dientengevolge kan het antwoord op de vraag niet vorm worden gegeven door een reeks van condities die nodig zijn voor iconische projecten om herontwikkelingen te stimuleren. Antwoord is daarom gegeven met meer nuance:

Conditie van iconische projecten die het meest bijdragen aan het aanjagen van projectontwikkelaars:	
• Functionele kenmerken	met name publiektoegankelijke en commerciële functies die zorgen voor levendigheid en footfall
• Sociaal-culturele kenmerken	met name de historie en het verhaal van de plek wat zorgt voor karakter en identiteit
Conditie van iconische projecten die tot op zekere hoogte ook een aanjagend effect kunnen hebben:	
• Locatie	de flow van mensen als gevolg het iconische project maakt dat de locatie van het iconische project kan aanjagen (hoewel de bereikbaarheid van de brownfield als geheel, met name naar de binnenstad, meer blijkt aan te jagen)
• Imago	het imago van de brownfield als geheel, aangevuld door het imago van individuele iconische projecten, kan met name investerende projectontwikkelaars met lange termijn focus stimuleren – onafhankelijke projectontwikkelaars met korte(re) termijn focus zijn eerder bereid dit imago zelf te creëren
Conditie van iconische projecten die het minst bijdragen aan het aanjagen van projectontwikkelaars:	
• Fysieke kenmerken	zichtbare cultuurhistorische waarde van de brownfield als geheel jaagt ontwikkelingen aan, in plaats van de fysieke uitstraling van individuele iconische projecten
• Naam van de architect	werkt aanjagend bij een ensemble met grote namen, niet zo zeer op het niveau van een individueel project
• Ontwikkelingsproces	lopende projecten die succesvol ogen en verwacht worden succesvol te worden volbracht, leveren een positieve bijdrage aan het imago en de branding van de brownfield
• Schaal	grootschalige iconische projecten zorgen enerzijds voor zichtbaarheid en herkenbaarheid van het gebied, anderzijds worden deze ervaren als een fysieke belemmering – kleinschalige iconische projecten kunnen aanjagen gezien zij het gebied intiem en exclusief maken
Omdat de <b>uniciteit</b> en <b>innovativiteit</b> van de iconische projecten in dit onderzoek zijn afgeleid van de bovengenoemde condities, worden deze niet meegenomen als stimulerende condities an sich.	

### (2) Mijn vraag aan u:

Komt bovenstaande indeling naar uw ervaring overeen met de praktijk? Zo ja: Kunt u een voorbeeld geven van een bepaalde functie of sociaal-cultureel kenmerk dat naar uw ervaring heeft gefunctioneerd als aanjager voor (een) projectontwikkeling(en)? Zo nee: Welke aanpassingen zou u doen?

Ik zie uw antwoord met veel belangstelling tegemoet.  
Bij voorbaat ontzettend bedankt!

Met vriendelijke groet,  
Misha Gorter

### Respondents:

- Regio Manager, BPD
- Director Development, Stichting Droom en Daad
- Project Manager, Municipality of Rotterdam
- Urban Supervisor, Municipality of Rotterdam



# Appendix X. Reflection on ethical concerns and the research process

## Reflection on ethical concerns

Within this paragraph, the ethical concerns encountered while doing the research and the ethical concerns concerning the application of the results in practice will be reflected.

### *Ethical concerns regarding research*

This research does not involve participants who are particularly vulnerable or unable to give informed consent. All participants participate completely voluntarily in the research and are free to withdraw their consent at any time, without giving a reason. As a consequence, all obtained data will then be destroyed. These rights, and more, have been documented in an informed consent that can be found in Appendix IV. Moreover, this research does not involve active deception of the participants, neither is it about sensitive topics. As this research is conducted while doing a graduation internship at Brink Management / Advies, this could be considered an ethical concern, as the information obtained during the interviews will also be available for them. However, all interviewees were aware of the fact that this research is being conducted while doing a graduation internship at Brink. In fact, all contact details of the interviewees came from the external mentors at Brink Management / Advies. As such, no ethical concerns have been encountered during the research process.

### *Ethical concerns regarding application in practice*

No moral issues have been identified as regards to the implementation of the research findings in practice, as no potential for harm has been encountered whatsoever. As a consequence, the application of this research does not encounter any ethical concerns.

## Reflection on the research process

This paragraph reflects on the research process of the past year. The preliminary remark has to be made that this paragraph has been written from a personal point of view.

### *Towards the P2*

In September 2018, the graduation lab started with an introduction to all graduation topics within the four chairs of the MBE department. For me, this was pretty overwhelming as the choice for the topic and first mentor had to be made within the same week. After all the presentations, lots of reading, brainstorm sessions and discussions with fellow students and teachers, I knew I wanted to graduate within the UDM chair. The creation of better places through architecture have sparked my interest early on. Besides, urban area redevelopments are often very dynamic with a high degree of complexity. This makes urban area redevelopments challenging to research and ensured an interesting journey.

Moreover, I find it very interesting to look at the behaviour of developers. Eventually, I would like to become a developer myself and this subject was not touched upon in the master program. In addition, the transformation of areas or even complete cities through architectural icons simply amazes me. It is therefore not really coincidental that my favourite city is Rotterdam. With that in mind, I managed to create a both very interesting as well as a very relevant goal that I wanted to achieve by means of this thesis: to gain better understanding about the catalysing impact of iconic buildings in brownfield areas that could incentivise private real estate developers to redevelop.

Against many views, I have experienced doing the literature review as one of the most fun stages within the research. It felt like the first semester really gave me the opportunity to become an expert in the research field (although I now realise, after the empirical research and the graduation internship, that I am absolutely not an expert at all). Moreover, much literature could be found on the main research topics which made it a challenge to really show my own stance towards these findings. It felt like each day I became more and more experienced within the topic. I am very happy with the fact the research topic truly intrinsically motivated me.

### *Towards the P4*

Once the empirical research started, it soon became clear that practice is absolutely not equal to theory. During the literature review, I really focussed on the main concepts of this research. During the interviews, it quickly became clear again that, of course, not only iconic projects play a role in development decisions, but many other factors too. This was already known from the start, but that confrontation during the interviews sometimes made it hard to believe that this research really contributes to science and society and will actually be of use. The interviews made me realise as well that urban area development really is a people's job and something you never do alone. During the interviews, many interviewees referred to each other and almost every interviewee knew the other interviewees I was going to see. Even with such large and complex area developments that last for decades, the urban development field in practice truly appeared to be a 'small world'.



I have experienced the phase between the P3 and the P4 as most challenging. Many analysis were done and many information had been obtained. Translating this into concrete conclusions was something I struggled with, as I was looking for a perfect structured process and pre-structured output. This appeared to be unrealistic. This part of the research process is much more iterative. It took a while to realise and accept that the results of the qualitative case studies obtained from subjective interview findings, could not be made as tangible and explicit as research findings from quantitative nature.

### *Personal and study goals*

Within the personal study goals of the P1, I wanted to ensure that I communicate clearly and unambiguously, regardless of what the final result will be, in order to contribute to scientific literature. That requires skills such as constantly having a critical and reflective stance towards your own research. I think I could say that I have made progress regarding my academic stance after doing a research of such scope. Writing a master thesis requires an iterative process and is a largely self-directed and autonomous activity, which for me was the most challenging part. As a consequence, I have not only learned a lot about the research topics, but just as much about the research process. Many moments have occurred where I had to figuratively take three steps back in order to go one step forward. Most of the time, that has led to better results. This research learned me to successfully deal with this. As I have mentioned within the goals of my P2 reflection as well, I wanted to stay as ambitious in the stages that followed after the P2. This is something highly personal to judge. In my feeling, I kept challenging myself and definitely did not chose the easy road. Looking back, I am glad that I have followed this journey and created a graduation thesis that is something I can proudly share with people in the field, as well as with those that just find the topic as interesting and appealing as I do. As for both my research and my personal objectives, I am happy to say that my goals have been achieved.

The three mentors that guided me during my thesis played an important role in these achievements. They each have their own expertise and I therefore was able to receive support on all the fields that this research touches upon. They kept asking critical questions and triggered interesting discussions, which enabled me to truly have a critical and reflective stance towards my own thesis. It has proven to be a fruitful and pleasant cooperation and I am very happy with such a nice and useful support system.



