ENGAGING BOTTOM-UP AND TOP-DOWN PLANNING STRATEGIES IN URBAN AREAS

TOWARDS MORE ITEGRAL AND RESPONSIVE URBAN REGENERATION PROCESSES
ILLUSTRATED IN BEVERWAARD ROTTERDAM, 2017-2018

MIRIAM DEN BOER

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GRADUATION MASTER THESIS
MIRIAM DEN BOER

ACKNOWLEDGEMENT

PREFACE

This graduation thesis is based on my personal interest in the regeneration of problem areas. From my personal perspective the main goal of the discipline urbanism is the regeneration of underdeveloped areas. Several third world countries have huge underdeveloped areas and we should improve them to reduce the gap between the developed and the underdeveloped world. In my opinion we should do this by looking on a more global level to the planning strategies and equilibrate the diverse and consisted interest of the diverse urban actors and not by tackling a single, specific problem on the small scale.

In case of informal areas, such as slums in Africa or South America, there is a complexity of various aspects, such as cultural diversity, deprivation and poverty, social structure and lack of knowledge. All these elements are parts of the complexity of informal areas and most of them are part of everyday life in diverse cities all over the world. Therefore, in case of urban regeneration acknowledging the current diversity of actors, it is important to take into account all these aspects.

Because of the current complexity of this urban regeneration, it is important to research the current processes, to see if they work as efficient as possible. This research takes Rotterdam as a case study, a large innovative and developing city of the Netherlands. Both top-down and bottom-up perspectives are revised to improve the current plans and processes for the regeneration of Rotterdam.

The choice for working with the Complex Cities graduation studio fits within the focus towards the transdisciplinary approaches of bottom-up and top-down and involving the interests, responsibilities and resources of actors in research and design. As is expressed in the next quote from the Yearbook 2016-2017 (Department of Urbanism, 2016, p 56) about complex cities: ".. how spatial planning and strategy making contribute to the diminishing of poverty..".

It is time for urban planners and designers to make a shift in the development of planning strategies in a way they create a more sustainable and durable way of urban development by using the existing qualities of each specific area. In this way our profession can contribute to the improvement of the living environment and conditions of citizens.

This thesis looks for an improvement of involving citizens into the planning processes of the municipality. By reviewing local citizen's demands, and combining this with the structure of the municipality, a new urban regeneration plan is developed, taking all the different actors into account.

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1. CONTEXT

1.1 INTRODUCTION AND CONTEXT OF THE THEME

About 1 billion people live in informal settlements to be close to any (possible) opportunity and a potential source of income (The World Bank Group, 2017), mostly in underdeveloped countries. But how can we, living in a more developed world, fix their problems if we cannot solve our own problems? In the Western world, even in the more developed part of it there are many areas that should be developed. Europe for example, is witnessing growing exclusion in the big cities (Madanipour, Cars & Allen, 2003), including unemployment and separation in level of education and income.

Looking at a world city like Paris, it has massive problems with the so called 'Banlieues', the biggest problem neighborhoods of the country. Rotterdam, a world harbor city, with one of the biggest harbors in the world and number one harbor in Europe (N.A., 2017) is also facing problems in the suburbs. As the second largest city of the Netherlands, Rotterdam is doing well on the global level, but on local level most of the problem neighborhoods of the country are located in Rotterdam (see image 2). Rotterdam-Zuid is the largest problem area of the country. One third of the city population lives in this area and it is even bigger than most Dutch cities (see image 3). Rotterdam-Zuid exists of seven focus neighborhoods: Afrikaanderwijk, Bloemhof, Carnisse, Feijenoord, Hillesluis, Oud-Charlois, Tarwewijk; which are located in the three problem areas: Feijenoord, Charlois en IJsselmonde.

PROBLEM NEIGHBORHOODS IN THE NETHERLANDS

Rotterdam
with seven problem neighborhoods

Image 2 | Source: based on http://www.klarendal.nl/bezuinigen-en-doorpakken/

Hoek van Holland

Rozenburg

Prins Alexander

Hillegersberg
Schiebroek

Overschie

Noord

Kralingen
Crooswijk

Centre

Delfshaven

FEYENOORD

Pernis

SOUTH OF ROTTERDAM

CHARLOIS

IJSSELMONDE

Hoogvliet

Image 3 | Source: based on Wijkprofiel, 2014-2016

2. THESIS STRUCTURE

I. CONTEXT	III. MAIN ANALYTICAL FRAMEWORK

II. THESIS STRUCTURE

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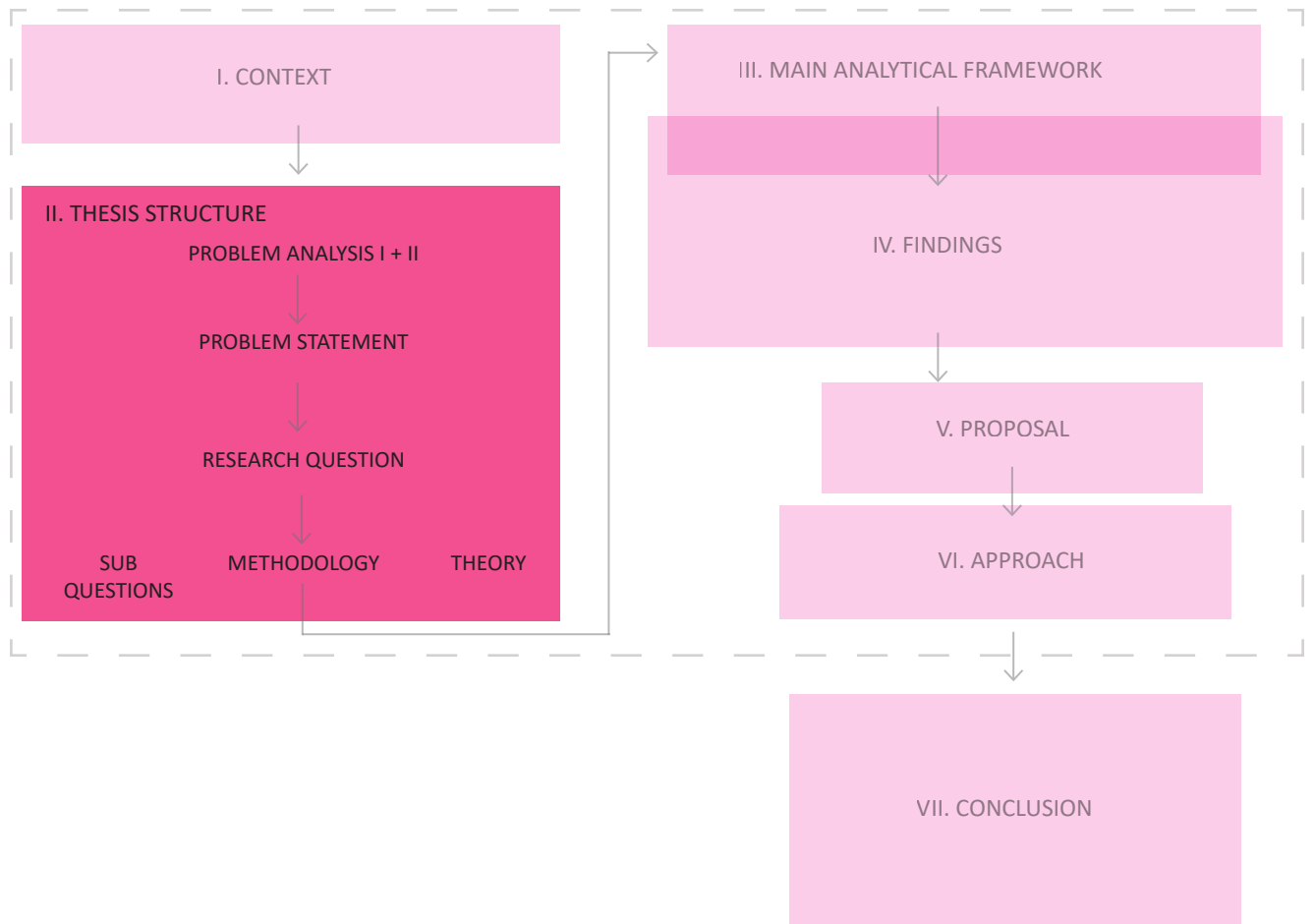
2. THESIS STRUCTURE

2.1 PROBLEM FIELD

2.1.1 PROBLEM ANALYSIS

Looking at the Netherlands, a well-developed country with well-organized town planning, there are still problem areas focusing on different governance levels. In recent times, the urban regeneration plans in the Netherlands did not work, looking at multiple scales such as the Dutch national scale, the municipal scale of Rotterdam and the neighborhood scale of Beverwaard (Roerdink, 2016; NPRZ, 2015; Gemeente Rotterdam, 2015).

Vogelaar wijken

Why does a well-developed country as the Netherlands, still have problem areas? About ten years ago the Ministry of Infrastructure and the Environment in the Netherlands introduced 40 problem neighborhoods, so-called 'Vogelaar-wijken', that needed support and money to develop to the average level of the city where they belong. However, in most of the 40 problem neighborhoods nothing has changed in comparison with the rest of the city and they are still defined as 'weak' (Roerdink, 2016). In the reflection report (N.A., 2015) had been said that the livability as experienced by the residents of these neighborhoods was still insufficient and that most of the 40 problem neighborhoods did not develop at all, or even got worse.

It is important to learn why these plans did not work. Was the top down planning strategy of the government well-chosen and/or performed or was it not working for example just because of the financial crisis?

Public Space

Many of the defined problem neighborhoods are located in the South of Rotterdam. The municipality started a specific program to develop this region (NPRZ, 2015), to develop the problem neighborhoods. But between 2008 and 2014 the situation of the South of Rotterdam has become worse. In phase two of the 'Uitvoeringsplan 2015-2018' (NPRZ, 2015), the municipality started a new development program under different circumstances. The Nationaal Programma Rotterdam-Zuid made an integrated plan which focused on housing, employment and education. However, in this plan there is a lack of focus on public space. Public space is very important for the development of an area, because this is where the interaction between people takes place. According to Jane Jacobs (as cited in Sennet, 2006) a dense, mixed and diverse place, including public and private functions, leads to certain circumstances, discoveries, innovation and encounters (Sennett, 2006). Carmona (2010, p. 144) describes the "public space as an open and inclusive stage for social interaction, political action and cultural exchange". These interactions and innovations are important to regenerate an urban area like the South of Rotterdam. Interaction leads to new developments, gives social security (like helping each other) to make citizens feel safe, and also leads to identification with the place and will make people feel more responsible to improve their own neighborhood so there will be less trash and less burglary.

These public social interventions are a good thing, but not all these interactions in public space can be controlled. As Jane Jacobs says "If density and diversity give life, the life they breed is disorderly" (as cited in

Sennet, 2006, p. 2). Therefore a special strategy for urban development is needed, to create a good relationship between owners, stakeholders, users, and the physical conditions (Sennett, 2006).

Relation public space and interaction of people

In this research the focus will be towards public space. Public space is important for interaction and social security and to create a nice living environment. But what is the relation between people and public space? What factors influense the experience of people and effect their behavior?

Several experts have written about public space and its relation to people. With literature of Carmona (Carmona, Tiesdell, Heath, & Oc, 2010), Gehl (Gehl, & Gemzøe, 2004), Lynch (1990) the existing types of public space will be described.

Gehl and Gemzøe (2004) make a relation between public space and public life by describing the city of Copenhagen by the types of public space and how, for example, the city square, pedestrian street and park are used by the people. They make a distinction in stationary activities and public cultural spaces where the public space functions as a public arena (Gehl & Gemzoe, 2004).

There are different types of public space: square, street, park, courtyard, riverside etc. Though, aside from naming a certain place, there are many aspects that define a place. A square can be large or very small, but both are called "square". Beside size, there is a third factor that effects the experience of a place. Factors like facades, floors cape, townscape, landscape or street furniture influence the way people experience a place (Carmona et al., 2010). Also, how people experience a place might influence their behavior. So, a good public space design can influence the behavior of citizens.

Public space is important because all the interaction between people takes place in the public space. Public space should invite citizens to step out of their houses and meet each other in the neighborhood to help each other or learn from each other. When an interaction occurs, there will be cultural exchange and this can lead to new developments. This is important because it can lead to social security, life opportunities and improvements. Furthermore, a good environment is healthier and gives people the opportunity to participate.

Bottom-up initiatives

Making a new spatial strategy for urban development should involve all actors who benefit from local public space. Large scale developments in the city seem to focus on regional effects, but local connections shouldn't be underestimated according to ZUS (ZUS, n.d.).

The South of Rotterdam has a lot of potentials since migration of people towards the cities is increasing (Gemeente Rotterdam, 2015). But without improvement of neighborhoods in the South of Rotterdam on local scale, the more prosperous people will move to other parts of the city. Small-scale projects are productive elements in making local connections and stimulating the local public space to be accepted and integrated in its surroundings. Solving problems on local scale is needed in order to have an impact on the bigger scale.

According to Jane Jacobs change should go slowly. In the open city the "social and visual forms mutate through change variation; that people can best absorb, participate and adapt to change if it happens step-by-lived-step" (as cited in Sennett, 2006, p. 2). This confirms that small changes in time work more efficiently than huge top-down master plans. Currently, there is a focus on the formal governance issues, but should be a greater focus on the involvement of citizenship participation. For, participation of citizens is very important for the physical environment and its urban design, according to Sennett (2006).

Bottom-up initiatives are important for the participation of people, to involve people and connect them with their environment and to make them feel responsible to maintain the public space.
A city is made by its inhabitants and their activities. According to Simone (2010), movement in cities relies on small spontaneous things which create urban life. For example, every person has his own network of activities which makes the city complex, but at the same time it is the dimension that characterizes the city. Therefore, we cannot manage the city without understanding the informal processes.
Different examples show that informal processes and local initiatives cause participation. ZUS architects started a project with pop-up bars on an empty parking lot (small-scale) which expended towards a walkway to connect different city parts (city scale). To involve people, it is important that new plans are going step by step so people can adapt to changes, and all the different actors can be involved. Also possibil-

ities for informal initiatives make it easier for citizens to participate.

Revealing spatial demands
One of the problem neighborhoods in the South of Rotterdam is Beverwaard, because a large part of the population lives in poverty and there is a high rate of unemployment. The residents look for development and improvement of the living conditions (Gemeente Rotterdam, 2015). The main goal of the municipality is to develop the South of Rotterdam into a stable residential environment. In order to reach that goal with long term improvement, co-operation between the different actors, such as the public and private parties, is very important according to the NPRZ (2014). Cities are complex systems in which evolve so many different elements, actors and cultures that it is impossible to describe or design it from one single perspective. Because the neighborhood residents all differ, they will use the space differently and in a complex way, according to Carmona (2010). Therefore, it is important to involve all these different actors in order to manage the public space in a good way (Carmona, 2010). Described in the lecture of Han Meyer (2015) "a complex system is a system based on many interacting parts and each part is a system itself. Changes in one part will influence others and system as a whole. It is very difficult to predict future of the system". Nowadays, we are more aware of the complexity of the city and the consequences of current globalization for city life. We are less focused on making and controlling urban design, but we are focused on how urbanism can create conditions for

city development (Meyer, 2015).

Conclusion

In summary, the Dutch government and the municipality of Rotterdam made new (integrated) urban regeneration plans to improve the problem neighborhoods and to develop the South of Rotterdam into a stable residential environment (NPRZ, 2014). However, unlike of what was hoped, the development of most of the Dutch problem neighborhoods has stagnated (N.A., 2015) and at this time, the integrated plan of the Rotterdam municipality does not include public space (Carmona, 2010). Furthermore, the complexity of all the including different actors does not work in combination with the old planning system (Albrechts, 2010). And currently there is too less involvement on small scale of local actors.

Because of the different actors mentioned above, a top-down urban planning, like has been used for the planning of Beverwaard, works insufficiently. It is known that bottom-up planning strategies with resident participation is beneficial for the success in the short and long term of urban area planning. This implies that the proposed improvements are in line to the current residents of that area and the way they use their neighborhood. However, Albrechts (2010) points out that there is a challenge to find a systematic approach which includes the involvement of creative thinking about different future scenarios. To create a balance between all the different components, all the concerned actors should be able to cooperate in a good way. The complexity of all the different actors is that they have diverse demands, all actors will change over time and they all have a different relation with the public space.

The importance of the role of the public space in urban regeneration plans should be taken more seriously, because this is where the interaction takes place. This interaction leads to participation, social security, innovation and cultural exchange.

These days, there is a need to define potential functional relations and opportunities to evaluate performance of public space to be more responsive to diverse demands of complex actors in problematic neighborhoods. So the socio-spatial relations can be implied in the recognition of the neighborhood within a higher level of scale.

2.1.2 PROBLEM STATEMENT

In the Netherlands – more particularly the region South of Rotterdam – top-down urban planning systems, on the last ten years, insufficiently contribute to the development of problem neighborhoods. The area has been the main arrival place of new migrants, mostly low skill workers from diverse cultures and origin.

Therefore, there is an urgent need to consider the diverse actors in a revised planning system. It is essential to recognize the diversity of actors and demands, and to acknowledge them into an urban regeneration plan, including certain levels of participation at the construction of those plans. In order to improve the plans for a better integral effect on the neighborhood, it is necessary to make room for bottom-up initiatives that create a flexible plan with potential for changes in the future. Therefore, it is needed to design a new strategy that might improve the top-down development planning that will better engage with the bottom-up demands.

"A complex system is a system based on many interacting parts and each part is a system itself."

- Han Meyer (2015)

2.2 THESIS AIM

The purpose of this thesis is to develop a new urban regeneration plan for a problem neighborhood in North-West Europe that might create a better living environment where public space can contribute to the demands of the diverse group of residents.
This new plan should create better circumstances to engage bottom-up demands into the top-down planning process in a way that the urban regeneration plans will work properly and reveal the citizens demands to create a positive effect on the local public space network.
All the different steps to reach this goal are visible in an overview of the graduation plan, see image 5.

STRUCTURE GRADUATION PLAN

I. CONTEXT

CONTEXT

II. THESIS STRUCTURE

PROBLEM ANALYSIS I + II

PROBLEM STATEMENT

RESEARCH QUESTION

SUB QUESTIONS   METHODOLOGY   THEORY

III. MAIN ANALYTICAL FRAMEWORK

REGENERATION PLAN

TOP-DOWN   BOTTOM-UP

IV. FINDINGS

PLAN   PROCESS   PROCESS
                           PLAN
                           DESIGN

V. PROPOSAL

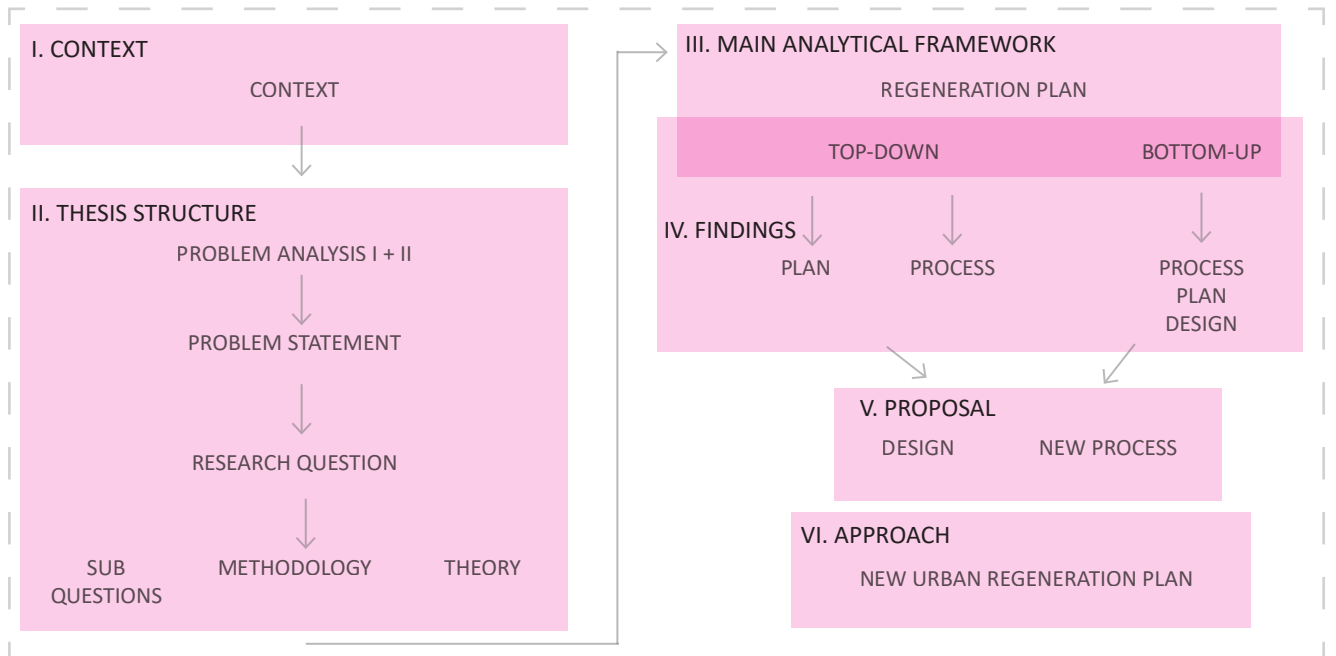DESIGN   NEW PROCESS

VI. APPROACH

NEW URBAN REGENERATION PLAN

Image 4 | Source: author

GRADUATION PLAN

I. CONTEXT

CONTEXT
Develop underdeveloped areas

Problem areas in developped world
World cities as Paris, New York and Rotterdam

South of Rotterdam -> biggest problem area of the whole country

Define potential functional relations and opportunities
Public space to be more responsive to divers demands of complex actors

Search for socio-spatial relations
to link neighborhood scale to a higher level of scale

↓

II. THESIS STRUCTURE

PROBLEM ANALYSIS I
EU - experiencing exclusion

→

PROBLEM ANALYSIS II
Importance of public space

NL - top-down regeneration plan of Dutch government: Vogelaarwijken (2007)

ROTTERDAM - regeneration plans do not focus on public space
Carmona (2010) describes the importance of public space

Need for interaction between people
-exchange culture and knowledge
-creating new developments
-social security

BEVERWAARD - problem neighborhood of Rotterdam
divers set of actors use public space different
change in time, old methods are dated

Space for bottom-up initiatives
Small scale projects in local public
space
-acceptation
-integration

↓

Connection public space networks
Where do people go?

PROBLEM STATEMENT
There are many plans for development, however, they are not working:
- problem neighborhoods still not improved
- lack of public space in development plans
- divers demands are not all taken into account

Because all actors are organised under a top-down planning system
therefore it is needed to recognize the diversity of actors and demands,
and recognize them into an urban regeneration plan,
including certain levels of participation at the construction of those plans
to improve the top-down development planning
so it will engage more with the bottom-up demands

↓

RESEARCH QUESTION

② ③ ①

IN WHAT WAY CAN **TOP-DOWN PLANNING STRATEGIES** AND **BOTTOM-UP DEMANDS ENGAGE** WITH EACH OTHER IN A
WAY THAT **LOCAL PUBLIC SPACE** CAN BE MORE RESPONSIVE
AND URBAN AREAS COULD BE MORE IMPROVED IN A MORE SUSTAINABLE WAY, IN **MEDIUM AND LONG TERM**,
RECOGNISING CURRENT RESIDENTS AND MIGRATION OF NEW INHABITANTS?

④

↓

SUB-QUESTIONS → SUB-SUB-QUESTIONS

① Does the in the seventies designed neighborhood still fit the **demands** and use of **current** residents and residents of the **future**?

What was the goal of the urban plan for Beverwaard?
How do current residents want to use their neighborhood?
Does the current regeneration plan fits the local demands?

② What is the reason that the **urban development plans** did not work in the **past ten years** in Rotterdam-Zuid, looking at space and immigration?

What were the past development plans?
What did work out well, and what did not work out?
What changed the past years?
What of the current plan should be improved?
What is the role of local demands of citizens in the current plan?

③ What is the **structure** of the current urban development plans of the municipality Rotterdam?

Change proces to engage local citizens
What in the current proces needs to change
to take the demands of local citizens into account?

④ What is the importance of **public space** linked to the **identification** of citizens with their neighborhood?

New design for public space, so better particitpation, engagement
What design tools are 'forcing' participation and engagement in public space?

↓

SUB-QUESTIONS → METHODS → THEORY

① Design fit **demands** residents

Interview urban planner of
Beverwaard
Interview local residents

L. ALBRECHTS
new strategic planning
'current planning not accurate'

② Urban regeneration plans did not work

Literature studies
(internet government)
Mapping and analysing space

D. KOZAK
'learning from the past'

③ **St**ructure of regeneration plans

Literature studies
Interview urban planner of
Beverwaard and municipality +
Literature studies (policies, plans)

M. CARMONA
reasses urban structure
'complexity of actors'

④ Importance of public space

Interview local residents
Mapping, observing
and interviewing

C. MOSER
asses of weakest group
'use of assets'

REGENERATION PLAN FOR PUBLIC SPACE

top-down plan with space   contribute to the whole
for bottom-up initiatives   set of residents

IV. FINDINGS

TOP-DOWN   BOTTOM-UP
regeneration plan Beverwaard

SPATIAL   DESICION MAKING

CURRENT REGENERATION PLAN   CURRENT PROCES   PROCES
Vision for Beverwaard   Planning strucutre   New top-down plannings proces
Physical plan   How does it work   where demands of local citizens can
                                                                    engage in early stage

'Rotterdamse stijl'   '*Inrichtings Plan Procedures*'
guidelines for public space   tools to realise goals set by municipality

'*Handelingsperspectief wijk Beverwaard*'
how can this challange people to participate   PLAN
                                                                    Take demands of all local citizens into
                                                                    account for new top-down regenera-
                                                                    tion plan

Plan   Water   Demands   DESIGN
municipality management   local citizens   Design tools to stimulate local citizens
                                                                    to participate more and interact in
                                                                    public space

V. PROPOSAL

NEW REGENERATION PLAN   NEW PROPOSAL FOR PROCES
Input demands of local citizens   So local residents can take initiatives
Create design which invites people to   To integrate demands of local citizens in plans
participate in public space
                                     What tools are needed to realize goal?

VI. APPROACH

revice current plan and proces to create
FLEXIBLE URBAN REGENERATION PLAN
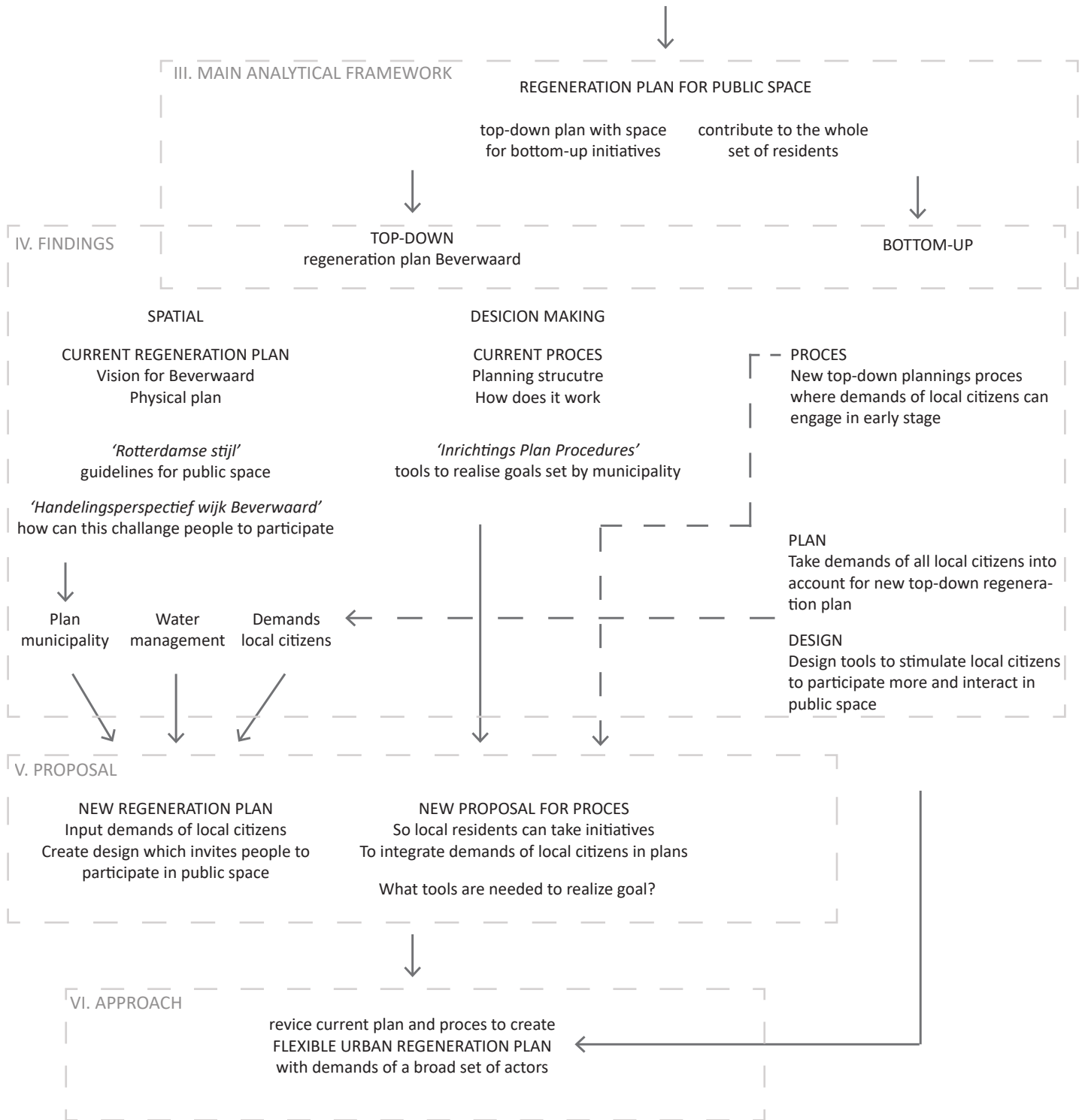with demands of a broad set of actors

Image 5 | Graduation plan | Source: author

2.3 THESIS OBJECTIVES

RESEARCH OBJECTIVE:

The overall goal for the thesis is to improve the current urban regeneration plan for the local public space of Beverwaard. This plan is complete when it include the following aspect: a more efficient way of urban planning for problem neighborhoods, a better involvement of local actors which will cause long term effects for local improvement and room for bottom-up initiatives to create a better involvement of local actors. With this, the local public space of Beverwaard will be improved and can be an example to tackle/improve other problem neighborhoods.

The design goal is to create a revised strategic planning perspective to create a better engagement between top-down planning strategies and bottom-up demands, so local public space can be more responsive and urban areas could be improved in a more sustainable way, in medium and long term, recognizing current residents and migration of new inhabitants, to create a better living environment where public space can contribute to the demands of the whole set of residents.

Planned outcome

Based on the analyses an improved strategy (planning process and regeneration plan) will be designed. To both propose this new strategy and improve the public space of Beverwaard, the current situation will be described following three main current aspects which have a big influence on the urban regeneration process for Beverwaard.
1. The input from local inhabitants will be used to revise the current regeneration plan for Beverwaard and create a new design for the neighborhood.
2. The current structure of the municipality will be mapped, as well as the current involvement of local inhabitants. After this, a better involvement of local inhabitants will be proposed in connection with the municipality and in the planning process.
3. The current process of planning will be mapped as well. Furthermore, the current vision of the municipality of Rotterdam will be revealed to see if there is a connection between the plan and the demands of the local inhabitants.

In a pilot, the proposed strategy for urban regeneration will be applied in the design for the public space of Beverwaard. Co-designing with local citizens will show how the new strategy will work.

2.4 RESEARCH QUESTION

In what way can top-down planning strategies and bottom-up demands engage with each other in a way that local public space can be more responsive and urban areas could be more improved in a more sustainable way, in medium and long term, recognizing current residents demands and potentialities and migration of new inhabitants?

Sub-questions
This general research question will be answered throughout answering the following sub-questions.

1. For what reasons did the urban development plans, regarding space, not work in Rotterdam-Zuid the last ten years?

2. What is the importance of public space linked to the identification of citizens with their neighborhood?

3. Does the local public space of neighborhood Beverwaard still fit the demands and use of current residents?
3.1 What are the citizen's demands for using local public space?
3.2 What is the idea behind the current design of Beverwaard?

4. What is the structure of the current urban regeneration plans of the municipality of Rotterdam?
4.1 What is the current regeneration plan?
4.2 What process of planning is used?

5. In what way are local citizens involved in current regeneration plans of the municipality of Rotterdam?
5.1 How are citizens involved in the structure of the municipality of Rotterdam?

2.4.1 Social relevance

Since there are more actors involved with the urban development planning it gets more complex (Carmona, 2010). In order to structure the planning processes and involve all the different actors a new planning strategy is needed.
Therefore, to succeed into social-spatial integration, first neighborhood level and through that to the urban system as a whole. The proposal described considers the permanent flow of migration and the need to consider diverse social actors to co-define, evaluate and design public space as a way to adapt the urban structure to the users.

2.4.2 Scientific relevance

What does new plan add to current structure? This research focusses on the public space, because this important factor is sometimes forgotten in regeneration plans. In this way, this research can add to the current regeneration plan for the South of Rotterdam. Because of the natural aging process of buildings, the residences in Beverwaard become less attractive and need maintenance (Uitvoeringsplan 2015-2018 IJsselmonde). To avoid that people will move away, Beverwaard and other seventies neighborhoods need to be re-developed.
The proposal search for active method to co-evaluate the urban structure with broader set of stakeholders. In particular with the weakest inhabitants to assure empowerment processes to activate an integrated planning system as a way to align demands and potentialities within urban regeneration processes.

2.4.3 Ethics

Cooperation
What does cooperation between different actors mean, and is it profitable for everyone? Having constant interaction between the municipality and local inhabitants will cost time and money.
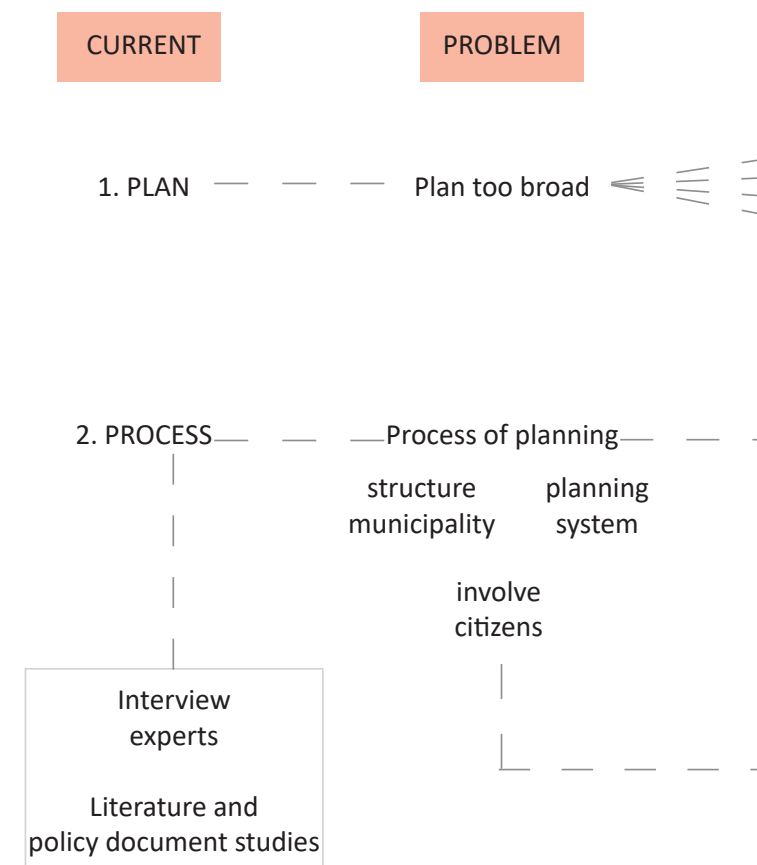
Participation of local citizens
How can every voice be heard and do all the citizens want to participate? Where is the border between top-down and bottom-up? Do local citizens have enough knowledge to participate in a design process?

Effective feasibility for place and inhabitants
Is there money for changes? The municipality has to choose between projects, since there is not enough money to realize every project. Change of old systems will cost time as well, since people need to change their way of working. This needs a cultural change. In communication, there is a language and cultural barrier as well. These barriers contribute to a failure of integrating the weakest groups in participating. For, not everyone have the same interests and demands.

The new local regeneration activator plan, proposed in this study, responds to the concept of right to the city and is explained in an evolutionary regeneration plan. This strengths and engages local actors so to assure divers level of integration, in space and in the local decision making. This is proposed so to achieve a more clear identity at the regeneration plan on the urban problem areas of Rotterdam.
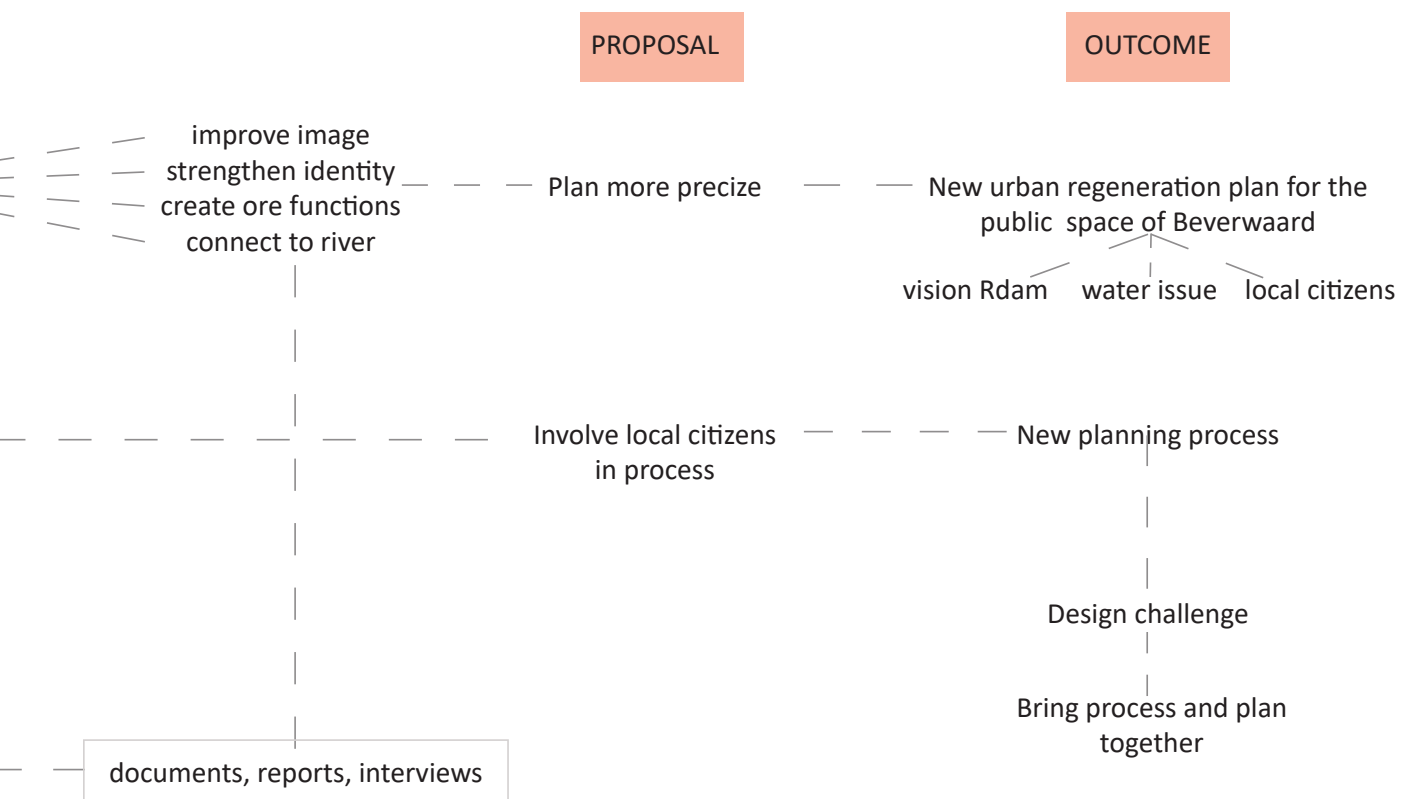
METHODOLOGY CHART

APPROACH: TOP-DOWN → BOTTOM-UP

CASE: ROTTERDAM BEVERWAARD

CURRENT   PROBLEM

1. PLAN — — — Plan too broad

2. PROCESS — — Process of planning
structure   planning
municipality   system

involve
citizens

Interview
experts

Literature and
policy document studies

improve image
strengthen identity
create ore functions
connect to river

Plan more precize

New urban regeneration plan for the
public space of Beverwaard

vision Rdam   water issue   local citizens

Involve local citizens
in process

New planning process

Design challenge

Bring process and plan
together

documents, reports, interviews

Image 6 | Methodology chart | Source: author

2.5 METHODOLOGY

This chapter will describe how the engagement between top-down planning strategies and bottom-up demands is examined and turned into a new urban regeneration plan.

First, existing structures of the top-down urban regeneration plans and processes are revealed as well as the spatial functional demands of local citizens. These two main perspectives, top-down and bottom-up, are investigated with the focus on the case city Rotterdam with its neighborhood Beverwaard.

Mixed methods are used with the focus on fieldwork research and research by design, to develop products step by step, testing and improving till the final product was formed.

CONSULTING EXPERTS BY INTERVIEWS

The current situation of the planning system of the Municipality of Rotterdam is analyzed by interviewing different experts from the municipality about their experiences and ideas with planning processes (research question 4). The focus for these interviews was towards planning procedures, urban regeneration plans for public space and the relation to local citizens (research question 5).

The department 'Stadsontwikkeling' of the municipality is focused on the public space and expert in specific areas, like IJsselmonde. Someone who is active in using citizen participation is interviewed first about the planning procedures of the municipality and how citizens are involved (research question 4 and 5).

The urban planner of Beverwaard is interviewed to know how the neighborhood is developed and what the idea was behind the plan. His original drawings and documents are used to describe the development of Beverwaard (research question 3).

The department 'Stadsbeheer' of the municipality is focused on the maintenance of the public space and teams are focused on specific neighborhoods like Beverwaard. They know what is going on in the neighborhood and have contact with local citizens (research question 4 and 5). Through this, connections with specific inhabitants were made, a

start to reach citizens for the survey.

All the experts were asked to give suggestions for relevant documents. Combining the gained information from the fieldwork research (interviews and observations) with desktop research (reports, documents, literature and policies) a clear current situation could be described including the assets and problems of the plans and processes (research question 6?). To complete the information someone from the department 'Gebiedsorganisatie' has been interviewed about the relation between the municipality and the local inhabitants. At the same time, the findings from previous research has been checked (research question 4 and 5).

SURVEY

The information from the experts was used to develop an online survey to explore the demands of a large group of different local residents of Beverwaard to look for solutions. This survey with 24 open questions gathered information about how people experience specific public spaces in the neighborhood. From the outcome of the online survey, using content analysis, twelve statements for a focus group were made (research question 3).

By asking citizens in the online survey to join the focus group, five local residents were selected to join a group discussion to dive further into specific topics. A moderator guide the discussion (me) and one extra person took notes and photos. Again, content analysis is used to frame the results into a final input for a design plan (research question 3).

By this, a new regeneration plan for Beverwaard is developed using the input from local citizens, the vision of the municipality and the water vision for the city (research question 6). By design, the problems of these three themes will be linked and solved all in one plan which consider a broader spatial scale within an urban regeneration, linking governance level (top-down) to the local space (bottom-up). The process to realize this plan will be used as an example how the current planning process of the municipality can be changed to involve local citizens in an earlier stage.

2.6 THEORETICAL FRAMEWORK

There are several theories about urban regeneration and the need for the engagement between top-down and bottom-up. To create a new urban regeneration plan, a good understanding of the current situation and theories, the changes in the past and the plans for the future is necessary. Literature studies will support my research and will form the theoretical framework for this thesis.
The link between the research questions, the methods used and the theoretical framework is shown in image 7.

Dated planning system
Albrechts (2010) describes the importance of a new planning structure. Because of a change in time the current planning structures are not accurate anymore. This links to the first sub-question about if the planned neighborhood still fits the demands of the current residents (research question 1).
"..the need of government to adopt a more entrepreneurial style of planning in order to enhance cities' competitiveness, as well as a growing awareness that a number of planning concepts (..) cannot be achieved solely through hard physical planning" (Albrechts, 2010). This suggest that the top-down planning cannot include all the development plans. Governments should respond to local demands using creativity together with a collaboration in governance, between top-down and bottom-up, according to Albrechts (2010). "The challenge is to find a systematic approach that provides a critical interpretation of the existing reality and incorporates (or involves) creative thinking about possible futures and how to get there".

Understanding of current plan and process (research question 4)
Looking for the reason why the development plans did not work in the past, will show what can be changed to make an improvement for the future. Kozak's (2008) aim is to keep developing to create an "understanding of socio-spatial transformations that affect the form and structure of cities". Learning from the past change in social and spatial distances is important to move forward to create the optimal circumstances for a new future where "new forms

of separation plays role in form and structure of contemporary cities and urban regions".

Involve all actors of public space
Carmona (2010) is describing different types of public space, like 'lost spaces', 'twenty-four-hour spaces', 'exclusionary spaces', 'privatized spaces' and 'consumption spaces'. And sees public space, sub-question two, "as an open and inclusive stage for social interaction, political action and cultural exchange". The people who are using the space are all different and use the public space all in different and complex way, what makes it important to involve all different actors to manage the public space. This describes the complexity of the many different actors who are involved in creating a new urban regeneration plan, to reassess urban structure, linked to the second and third sub-question.

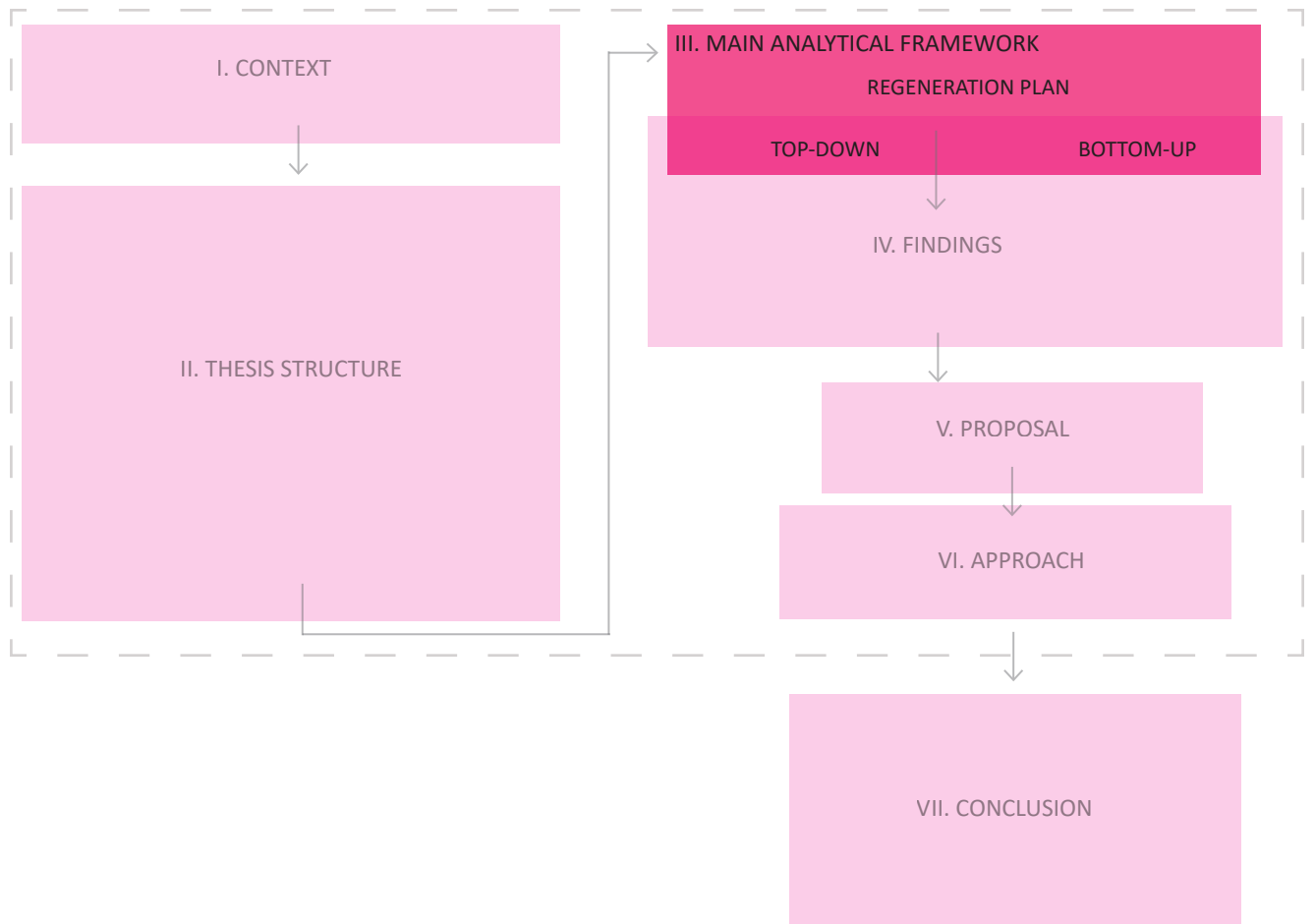Reveal assets and problems of public space
Moser (1998) explains why identifying the current qualities and problems (of the current development plans), sub-question three, is important. She describes a framework to manage assets by promote opportunities and remove obstacles, so the use of assets will be more productive. By identifying the qualities of the current public space, they can be expand to create a good living environment. "Identifying what the poor have, rather than what they do not have, focusses on their assets."

LINK METHOD AND THEORY

RESEARCH QUESTIONS	METHODS	THEORY
(1) Demands residents	Interview urban planner of Beverwaard Interview local residents	L. ALBRECHTS new strategic planning 'current planning not accurate'
(2) Urban regeneration plans	Literature studies (internet government) Mapping and analysing space	D. KOZAK 'learning from the past'
(3) Structure of regeneration plans	Literature studies Interview urban planner of Beverwaard and municipality + Literature studies (policies, plans)	M. CARMONA reasses urban structure 'complexity of actors'
(4) Importance of public space	Interview local residents Mapping, observing and interviewing	C. MOSER asses of weakest group 'use of assets'

Image 7 | Source: author

3. MAIN ANALYTICAL FRAMEWORK

I. CONTEXT

II. THESIS STRUCTURE

III. MAIN ANALYTICAL FRAMEWORK

REGENERATION PLAN

TOP-DOWN   BOTTOM-UP

IV. FINDINGS

V. PROPOSAL

VI. APPROACH

VII. CONCLUSION

3. MAIN ANALYTICAL FRAMEWORK

3.1 ANALYSIS OF BEVERWAARD

3.1.1 Why Beverwaard?

While analyzing problem neighborhoods and their development plans, the South of Rotterdam appeared to be the biggest area of multiple problem neighborhoods in the Netherlands (see image 8). Researching this area and looking into participation, a connection with a local organization, called the 'Veldacademie' (Field academy) was found. Located in the South of Rotterdam, the 'Veldacademie' is doing projects on local scale together with local residents, students and the municipality of Rotterdam, to tackle specific problems. "Fieldacademy Rotterdam, functions as local knowledge center of the community.

The institute surveys, visualizes and simulates interventions and developments that influence the global transformation of districts" (Veldacademie, 2016). Connected to the 'Veldacademie', there was an opportunity to cooperate with them and talk and learn about local problems, the way they are doing research, what research techniques they are using and their broad collection of knowledge about the area of Beverwaard.
The focus for this research was towards fieldwork research to get to know the problems and opinions by observing the neighborhood by walking and cycling, and talking to local citizens themselves.

PROBLEM AREAS OF ROTTERDAM AND LOCATION OF BEVERWAARD
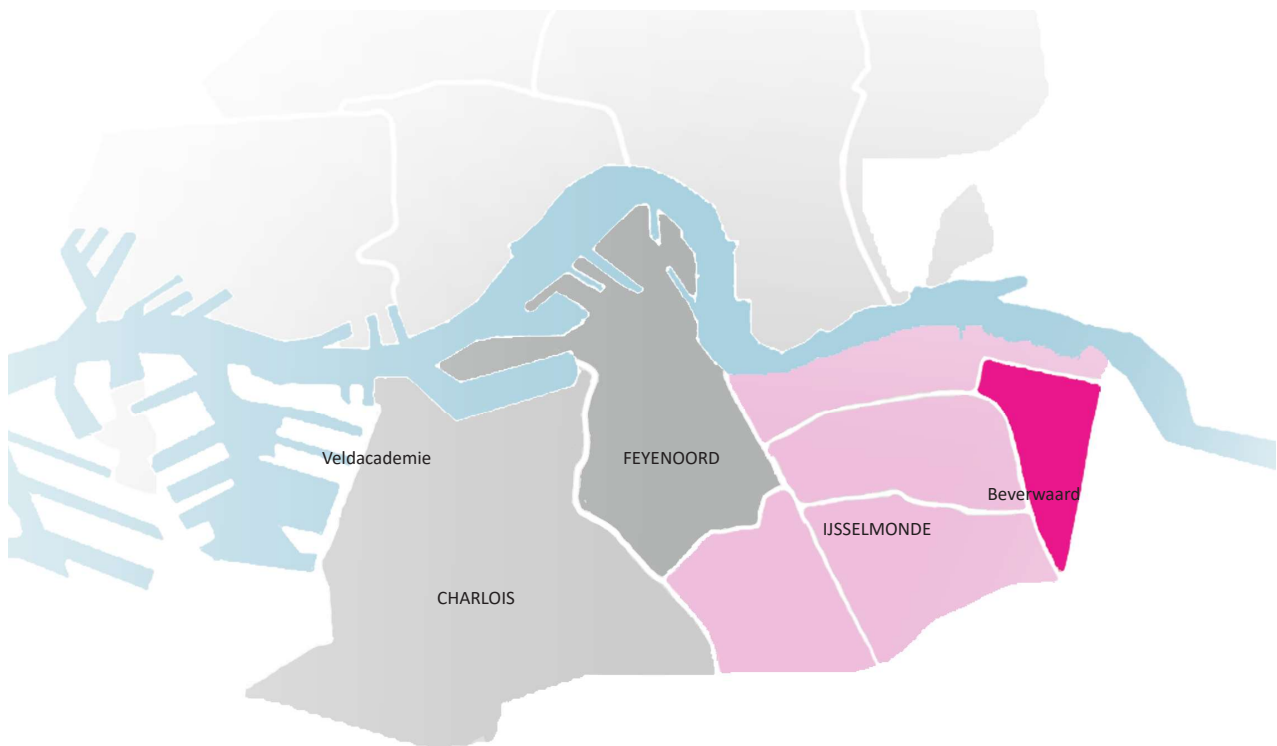
Image 8 | Source: based on Wijkprofiel, 2014-2016

3.1.2 Physical analysis of Beverwaard

Beverwaard is one of the four neighborhoods of the IJsselmonde district within the south of city of Rotterdam (Wijkprofiel, 2014-2016), part of the problem area of the city. Doing research in this neighborhood requires to know the area, social and spatial, focused on public space. A basic analysis of Beverwaard is essential before diving into the social aspects.

History: physical structure
After World War II, Rotterdam developed multiple neighborhoods in the South of Rotterdam in a short period of time because there was a big housing shortage. In the seventies, Rotterdam was still looking for new locations to expand the city. On the east side of the first Brienenoord bridge, on the south-east side of Rotterdam, Beverwaard was developed by external urban planners. Beverwaard is developed within ten years of time, using the existing system of the polder landscape as a base for the new structure. As a reaction towards the earlier post-war developments (like the Bijlmer in Amsterdam). Beverwaard was planned to have a low-rise character, with the maximum building height of four levels.

EXPANSION PLANS OF ROTTERDAM
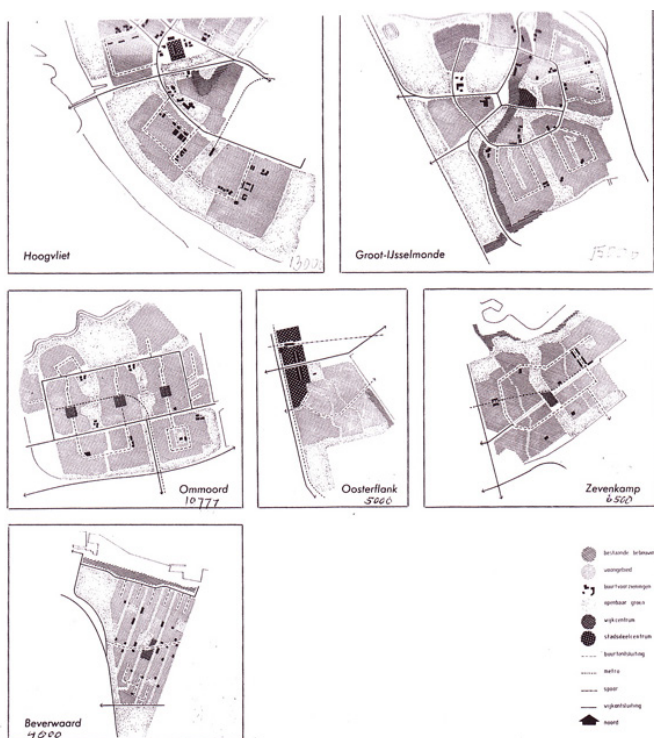
Image 9 | Source: Stichting Rotterdam Woont, 2017

FIRST STRUCTURE OF BEVERWAARD - MOBILITY
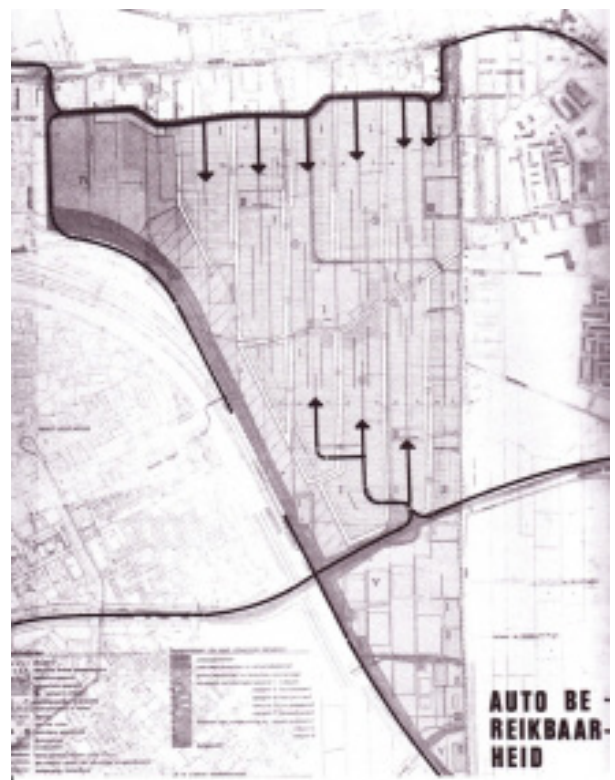
Image 10 | Source: Stichting Rotterdam Woont, 2017

Beverwaard

1. Winkelcentrum
2. Tijdelijke winkels (in bedrijfsruimte)
3. Gezondheidscentrum (tijdelijk)
4. Reservering voor gezondheidscentrum
5. Wijkaccommodatie met peuterspeelzaal
6. Peuterspeelzaal
7. Jeugdhonk
8. Reservering voor bibliotheek
9. Bejaarden-service flat
10. Openbare basisschool
11. PC/RK basisschool met peuterspeelzaal
12. Noodschool/reservering voor PC-school
13. Buurtpark
14. Wijkpark
15. Noordwestelijk groengebied
16. Avonturenspeelplaats
17. Reservering voor schooltuinen
18. Reservering voor nutstuinen
19. Reservering voor deeldijk
20. Begraafplaats
21. Jachthaven
22. Korfbalveld
23. Reservering voor voetbalvelden
24. Reservering voor volkstuinen
25. Bedrijfsruimten onder woningen
26. NAM-lokatie
27. Gasunie
28. Garage met benzinestation

—·—·— Toekomstige busroute Westnederland met halte

·········· Fiets- en voetverbinding

———— Toegangsweg

●●●◆●●● Tracee tramlijn met halte

= nog niet uitgewerkte bouwplannen

= gerealiseerde bouw of binnenkort te realiseren

Image 11 | Source: Henk Reijenga | Designer Beverwaard

Beverwaard is an isolated neighborhood on the edge of Rotterdam, because it hides behind the dike on the north side and the highway A16 on the west side separates Beverwaard from the rest of Rotterdam. A linear cauliflower design with five main singles (N-S) and one canal (E-W), which are dividing the neighborhood into different zones, but all with the same character because of the similar typology (single family homes) in the whole neighborhood. Beverwaard is a neighborhood characterized by a lot of green, water and play areas for children. The cauliflower pattern has the intention to create a public participative neighborhood, with interaction in public space, and an intimate, small scale living environment (see image 11, 12 and 13).

DESIGN BEVERWAARD - CANAL OUDE WATERING
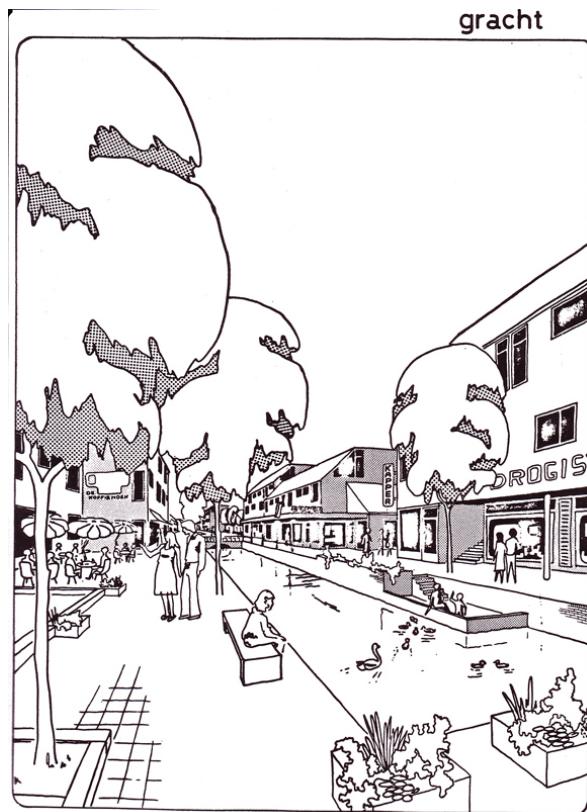
Image 12　| Source: Stichting Rotterdam Woont, 2017

DESIGN BEVERWAARD - SINGEL

Image 13　| Source: Stichting Rotterdam Woont, 2017

3.1.3 Social analysis of Beverwaard

Why is Beverwaard a problem neighborhood? Problem neighborhoods can be defined in different ways. Not every problem neighborhood is the same, they are all dealing with different social and physical problems. These problems, multiple at the time, can be for example high rate of crime, low education or low income. Looking at the statistics of Beverwaard, it is clear that this neighborhood is dealing with multiple problems.

The images below are showing a summary of the different outcomes of research focusing on social (satisfaction of citizens), physical (experience of the neighborhood) and safety aspects (see image 14 adn 15). "Wijkprofiel" based the outcomes on facts and opinions of the inhabitants (50%), and are used by different actors to create new urban plans

(Wijkprofiel, 2014-2016). In image 16, the chart for Beverwaard is further described.

The diagrams show that during the last years, Beverwaard, as a problem neighborhood, did not improve compared to the city where it belongs to, Rotterdam. Since all the yellow is below average, it turns out that Beverwaard, particularly in comparison with Rotterdam, is doing badly.

It is interesting to see that the subjective numbers of both IJsselmonde and Beverwaard are worse than the actual facts (Wijkprofiel, 2014-2016).

Interesting outcomes of the statistics
* Since 2013, in Beverwaard, the criminality has become less. But most of the crime rates on livability,

CITY OF ROTTERDAM
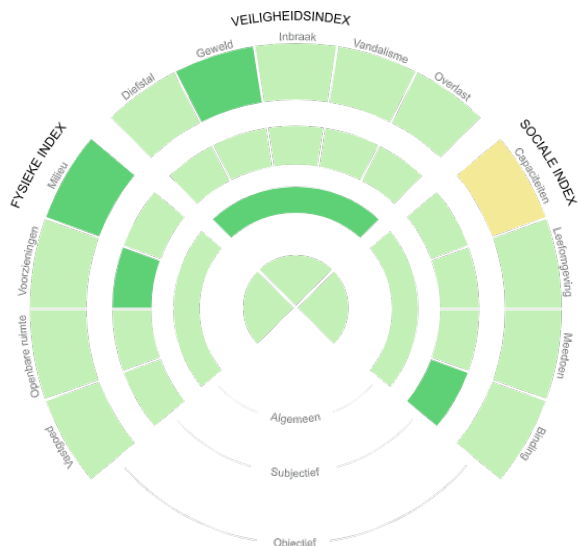
Image 14a | Source: Wijkprofiel, 2014-2016

DISTRICT OF IJSSELMONDE
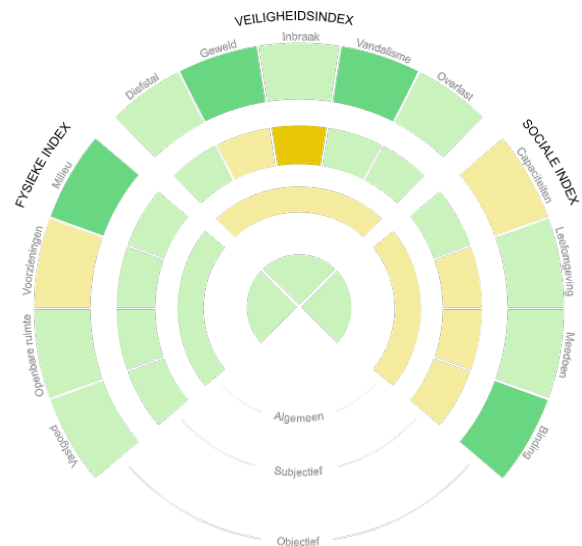
Image 14b | Source: Wijkprofiel, 2014-2016

Legend of diagrams:

- Dark green – above the average
- Light green – average of the city
- Yellow – below average

The outer ring is showing the objective outcome, the middle one the subjective outcome and the inner ring the 'average'

take place in public space.

* 55% of the inhabitants of Beverwaard are in the low income range, and only 10% in the high income range. The amount of people who have welfare assistance is less decreasing than than in the city of Rotterdam.

* The vacancy of retail buildings is rising. There are more vacant retail buildings then there are shops in one particular sector and the activity in shopping area of the neighborhood is decreasing.

* The amount of inhabitants is decreasing in Beverwaard in the past years this was -3.9%.

Finally, most of the households are the one-parent type. Many people are moving out of Beverwaard, when the population in Rotterdam stays the same. People who are moving to Beverwaard are mainly y coming from other problem neighborhoods like the South of Rotterdam and Delfshaven (Buurtmonitor, 2017).

Conclusion

These historical, physical and social aspects shows that Beverwaard is a problem neighborhood in statistical numbers and regarding the impact of the design structure of the neighborhood on the quality of life.

This research will explore the purposes behind the design and plan of Beverwaard. Besides the physical aspects, the social aspects of Beverwaard are investigated in order to show the demands of current local citizens as an important input for the final plan. If they are happy, it is interesting to learn about their problems and if they feel responsible for their neighborhood and what they would like to change. This is essential information for getting insight in how public space design can improve both social and spatial aspects of Beverwaard. Secondly, this information teach us about how a planning process can involve social improvements for inhabitants.

BEVERWAARD IN NUMBERS - EXPLANATION OF FIGURE
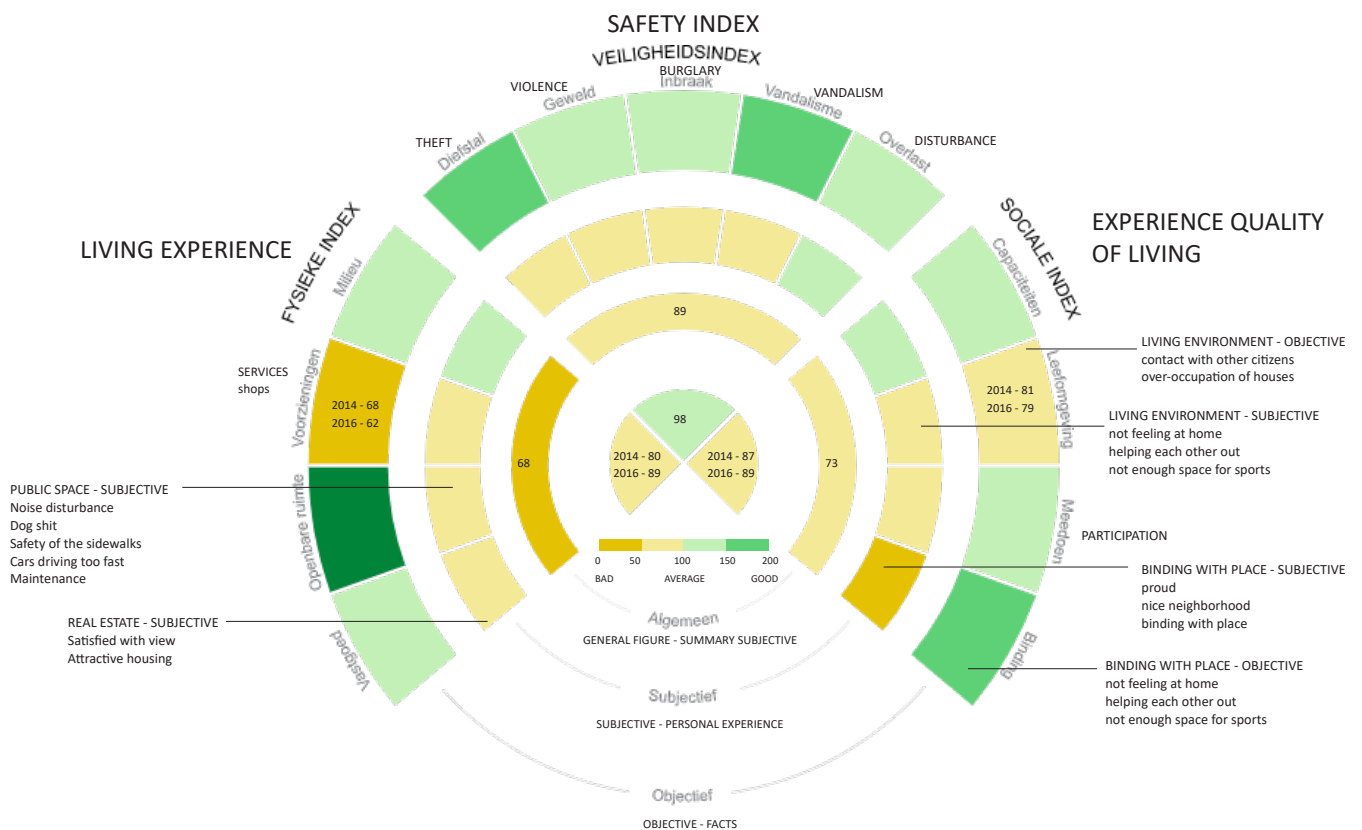
Image 14c | Source: Wijkprofiel, 2014-2016

4. FINDINGS

I. CONTEXT

II. THESIS STRUCTURE

III. MAIN ANALYTICAL FRAMEWORK

TOP-DOWN

BOTTOM-UP

IV. FINDINGS

PLAN

PROCESS

PROCESS
PLAN
DESIGN

V. PROPOSAL

VI. APPROACH

VII. CONCLUSION
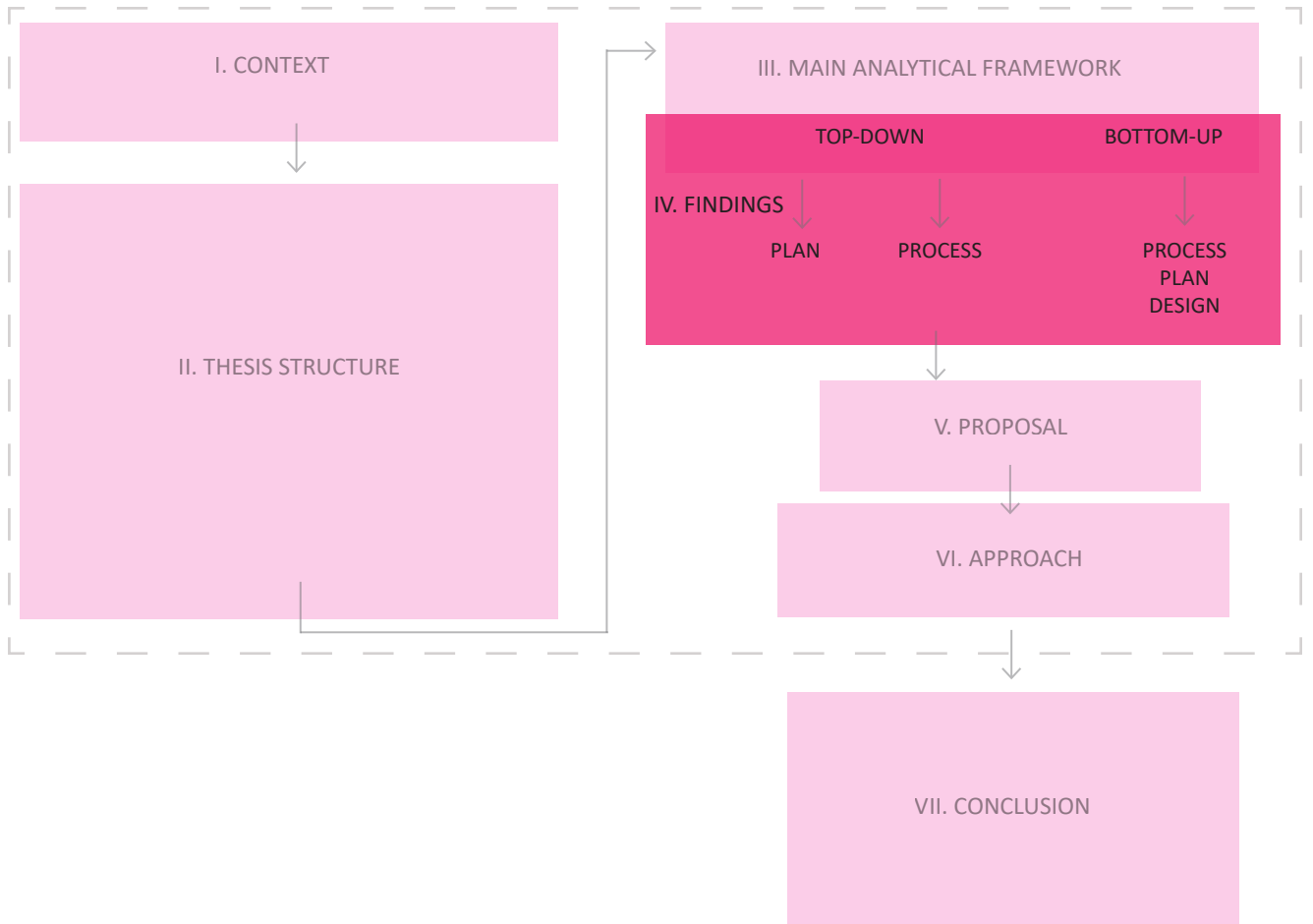
4. FINDINGS

4.1 FINDINGS TOP-DOWN APPROACH

In this chapter the vision for public space of the municipality of Rotterdam will be described. There is a broad vision for the city as a whole, as well as a document which describes the vision specific for Beverwaard. In these visions and strategies, the municipality shows the future plans and actions which are needed to improve the city.

4.1.1 Current vision for public space Rotterdam

A qualitative public space is a condition for the overall goals of the municipality of Rotterdam to create a good economy and a livable city (Ruimtelijke ontwikkelingsstrategie 2030). Rotterdam has its history with water. The water city, build along the river Maas and with its world harbor, has its urban structure defined by the existing waterways. Rotterdam focusses on creating a public space network through the whole city which is attractive and create chances for interaction between the many different cultures Rotterdam has (Woonstad Rotterdam – visie). Connecting these networks, cycle and pedestrian paths need to be improved. With the current procedures and policies, there is enough space for local inhabitants and the municipality to work together for local solutions. Therefore, starting improvements from the local/neighborhood perspective can be a catalyst for new developments.

4.1.2 Existing guidelines

The municipality of Rotterdam has made guidelines for designing the public space of the city, called the 'Rotterdamse stijl' (Rotterdam style) to create unity for the whole city of Rotterdam. The vision of the municipality of Rotterdam is to make a strong economy and create a nice residential city (Stadsvisie 2030). To realize this, a good public space is essential. The 'Rotterdamse stijl' starts with the city vision and investment program MIB (meerjarig investerings programma buitenruimte 2006). The main guidelines and main structures are recorded in this document, and per city district the vision is defined more specifically per scale. There is a special document, the Toolkit, which describes the design elements to implement this vision.

Three main focus points for the guidelines:
1 City along the river
2 Good infrastructure networks
3 Recognizable areas

Three main themes of the document:
1 Green city
2 Balance in historical heritage and new developments
3 Quality in materials for the public space

Then there are guidelines for three different scales:
1 Main structure (city scale)
2 Areas (identity), lines (river), places (squares)
3 Special places/identities (polder structures)

These guidelines for public space are all written down in one document, existing of four different parts, shown in image 17:
1. Vision
2. Guidelines for main structure
3. City-area structure
4. Toolkit: describes the design elements

PRINCIPLE ROTTERDAM STYLE GUIDELINES
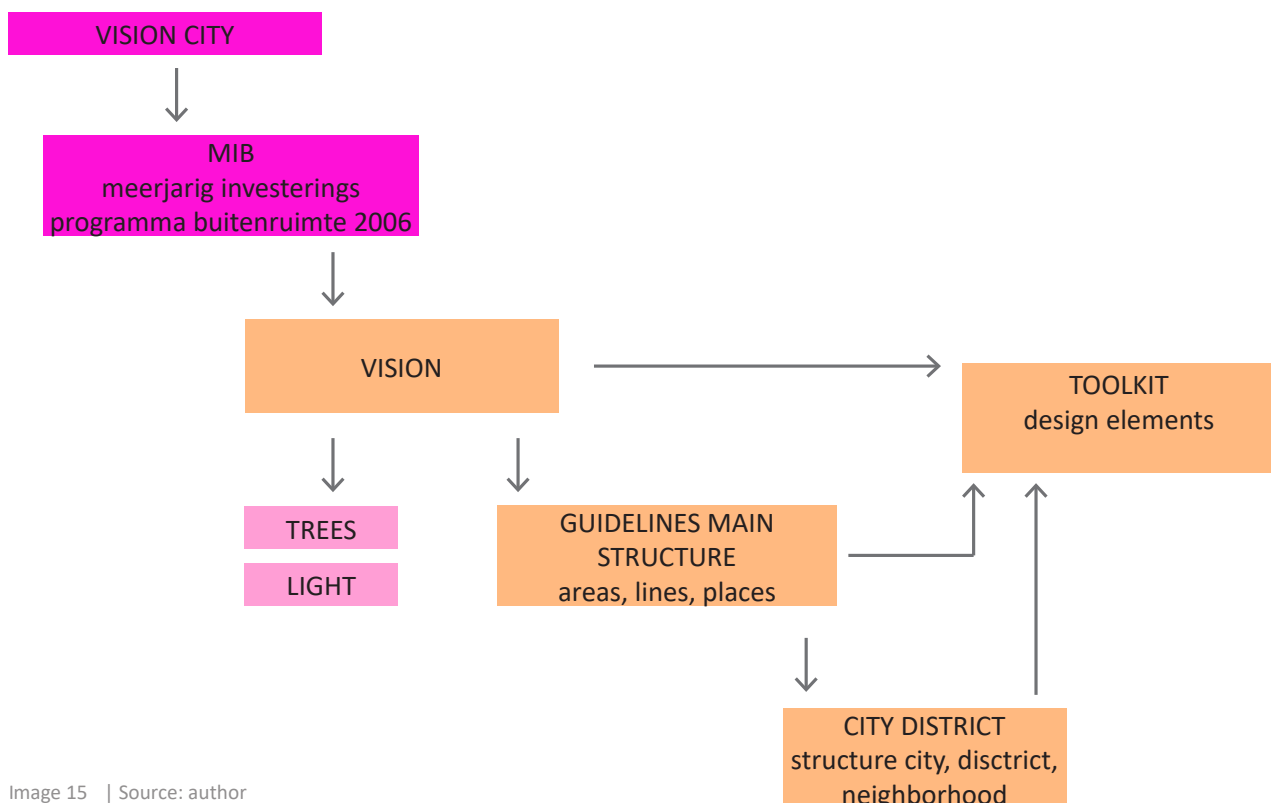
Image 15 | Source: author

4.1.3 Existing vision for public space Beverwaard

The document 'Handelingsperspectief wijk Beverwaard' ref. invoegen describes the current plan for the regeneration of the public space of Beverwaard. This document describes Beverwaard as a family neighborhood with 12.000 inhabitants all from mixed cultural background. It says that Beverwaard lacks its own identity, except for the singels, which are unique for Rotterdam. This neighborhood is located on the edge of Rotterdam, and since it is lack of facilities, it is not a popular neighborhood.

After describing the current situation including the challenges and opportunities of Beverwaard (see image 16), the municipality describes the strategy to improve the neighborhood (see image 17). Though they are very general about their goals and do not really propose concrete actions.

The main focus point for Beverwaard is the improvement of the image. The neighborhood has a bad image due to activities in the past. The

CURRENT PERSPECTIVE ON BEVERWAARD

Image 16 | Source: Handelingsperspectief

municipality wants to create a new identity and strengthen the current identity of a green family neighborhood. The focus will be on creating more functions which will have the effect of less vacancy. This will function together with the plan to help people in welfare to create more job opportunities. There are plans to make a better connection with the river, and the neighborhood Bolnes.

The plan is to improve the public space of Beverwaard to make it more readable for visitors when finding their way. Furthermore, with these plans for the public space, the creators want to take the 'Rotterdamse stijl', described above, into account.

4.1.4 Conclusion and proposal

In summary, the municipality of Rotterdam wants to focus more on public space and create a public space network to improve the city as a whole. The city has developed guidelines to reach their goal as described in the overall vision.

Per neighborhood the future vision for this area is described. Firstly, the neighborhood is analyzed and secondly improvements are proposed. These proposed interventions are in general without a time frame set to reach these goals. In order to reach the planned goals a more specific plan is needed including a better focus on small scale projects and initiatives and an explanation about how the plan will work.

PROPOSED IMPROVEMENTS FOR BEVERWAARD
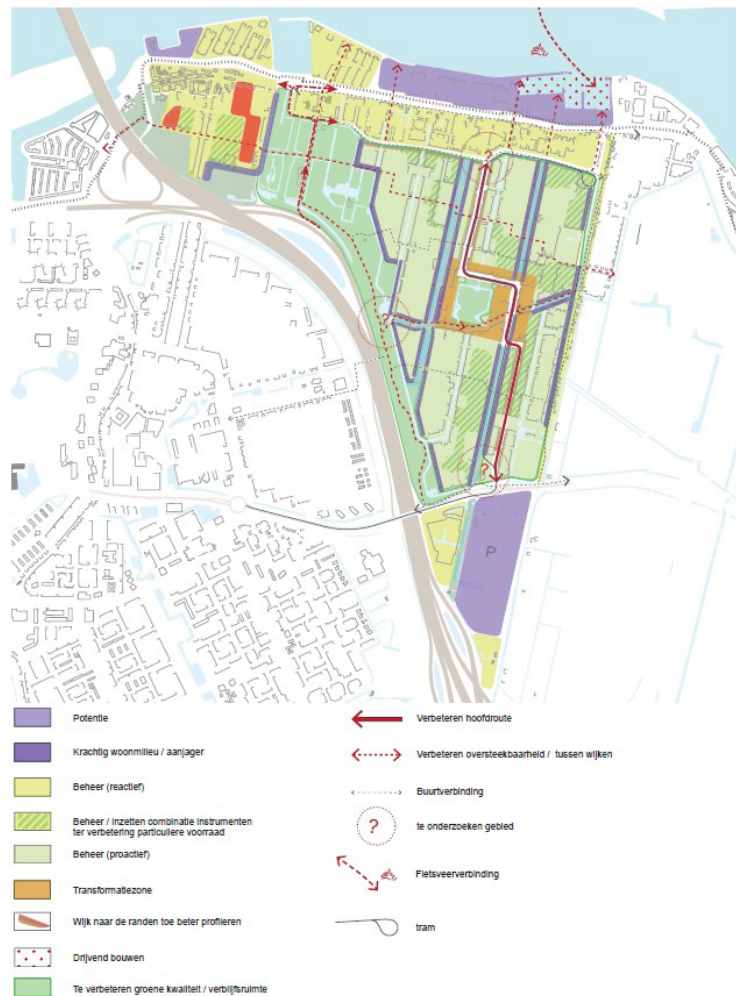
Image 17 | Source: Handelingsperspectief

4.2 STRUCTURE OF TOP-DOWN PROCESS

This chapter describes how the structure of the municipality works to realize their vision. There are a lot of plans and documents which describe what actions should be made. The municipality is responsible for the public space of Rotterdam. So it is important to know how the municipality functions to realize all the set goals described within the many documents / to know the structure of the municipality.

There is a process in what way plans for public space should be implemented by the municipality. Who is responsible for what actions? Step by step, the procedures will be described, to give an insight in how changes in public space are realized.

4.2.1 Structure municipality of Rotterdam
There exists a process that describes in what way plans for public space should be implemented. First it is important to know who is responsible for what actions. The municipality of Rotterdam consists of different teams with their own responsibilities (image 18).

Within the structure of the municipality there is a political organisation, and a functional organisation (the teams who are focussed on the performance of the plans). Team 'stadsontwikkeling' (city

development), team 'stadsbeheer' (city maintenance) and team 'gebiedsorganisatie' (area organisation) are responsible for public space. The teams, with their own responsibilities work together to keep improving the public space. 'Stadsontwikkeling' is involved in large scale projects as well as small scale projects. The staff members take part in the design team, and have the role of expert, such as designers, architects. 'Stadsbeheer' is responsible for the maintenance of the public space. The staff is involved in cleaning the city, but also in monitoring and enforcement. In each project that might change public space, this team is involved by checking the plan if it is sustainable or will be practical in maintenance.

The team 'gebiedsorganisatie' controls the other two organizations by monitoring the implementation of new public space plans.

When executing their projects, all three teams have contact with local inhabitants (image 19). 'Stadsontwikkeling' consults about design, 'stadsbeheer' gathers feedback the maintenance in the neighborhood, and 'gebiedsorganisatie' talks with local inhabitants and gives advice to the other organizations by creating a design plan for public space together with input from local inhabitants.
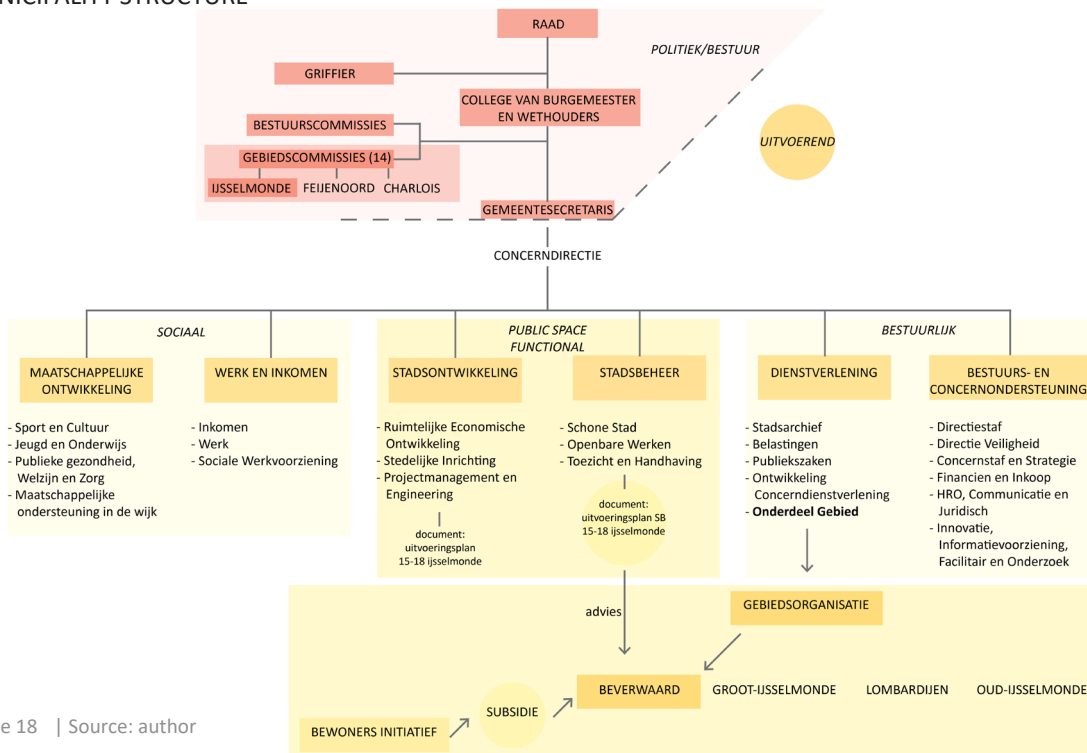
MUNICIPALITY STRUCTURE

Image 18 | Source: author

4.2.2 Planning process for public space

Before starting a new project in public space development, certain procedures and permits by the municipal government must be met.
The definition of 'Inrichtingsplan' (design plan) procedures: "A design plan is a (national) design of a public space to be set up. In the public space there are components such as: infrastructure (for car, bicycle, pedestrian and public transport), green (trees, green areas, etc.), water (ditches, quays, etc.), sewerage, lighting, utilities and street furniture (benches, hanging places, waste bins, etc.). Design plans are developed by the municipality.
Design plans have multiple phases, like program requirements (based on the urban preconditions), a preliminary design and a final design. And here too, in order to be able to actually build, various procedures and permits must be followed or regulated by the municipality. On the basis of the design plan, the board can decide on the execution of the work by selected contractor(s). The document describes that the building plan and the design plan are similar in phasing. But "a private party is, however, responsible for a building plan and the municipality is responsible for a design plan (for public space) and as a result, coordination does not always work

optimally. The starting point is the same for both: the urban plan with the preconditions" (https://www.rvo.nl/sites/default/files/bijlagen/Het%20gebiedsontwikkelingsproces%20-Bouwplanfase.pdf).

The municipal government decides if new design plans fit into these procedures. Since the processes are just tools the the order in how and by whom they are used is not fixed.
The problem is, however, that because there is a one given example of using the procedures everyone is following a single process in its particular order, although this is not mandatory. It would be better if people from the government can use the different procedures creatively in a way that everyone can be involved.

The IP procedures exist to guide the process of changing the public space. Since the municipality and the government are responsible for this, they set up these procedures with the idea that smaller plans would fit within the overall vision of the government (see image 20).
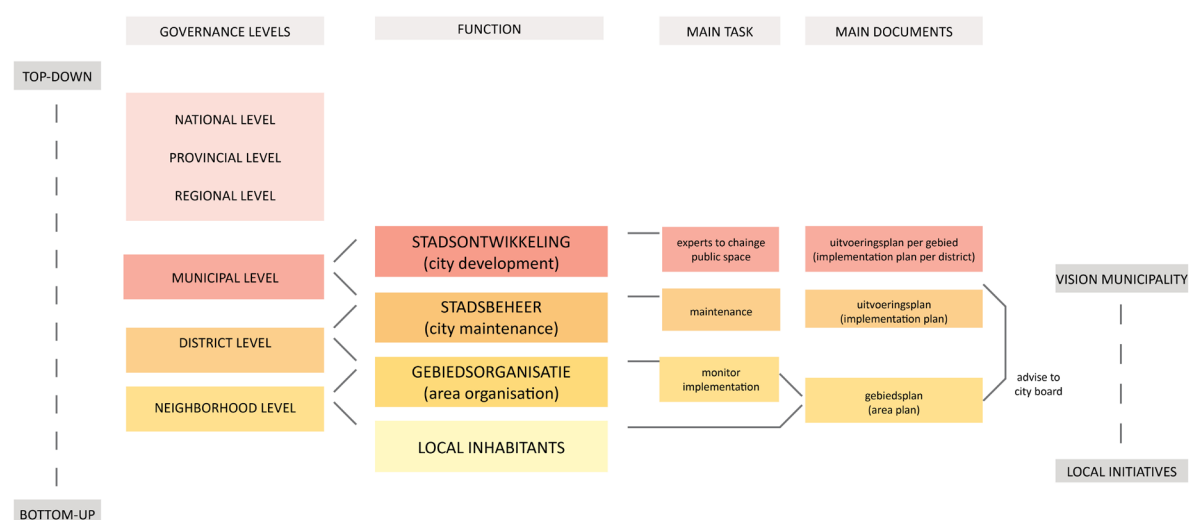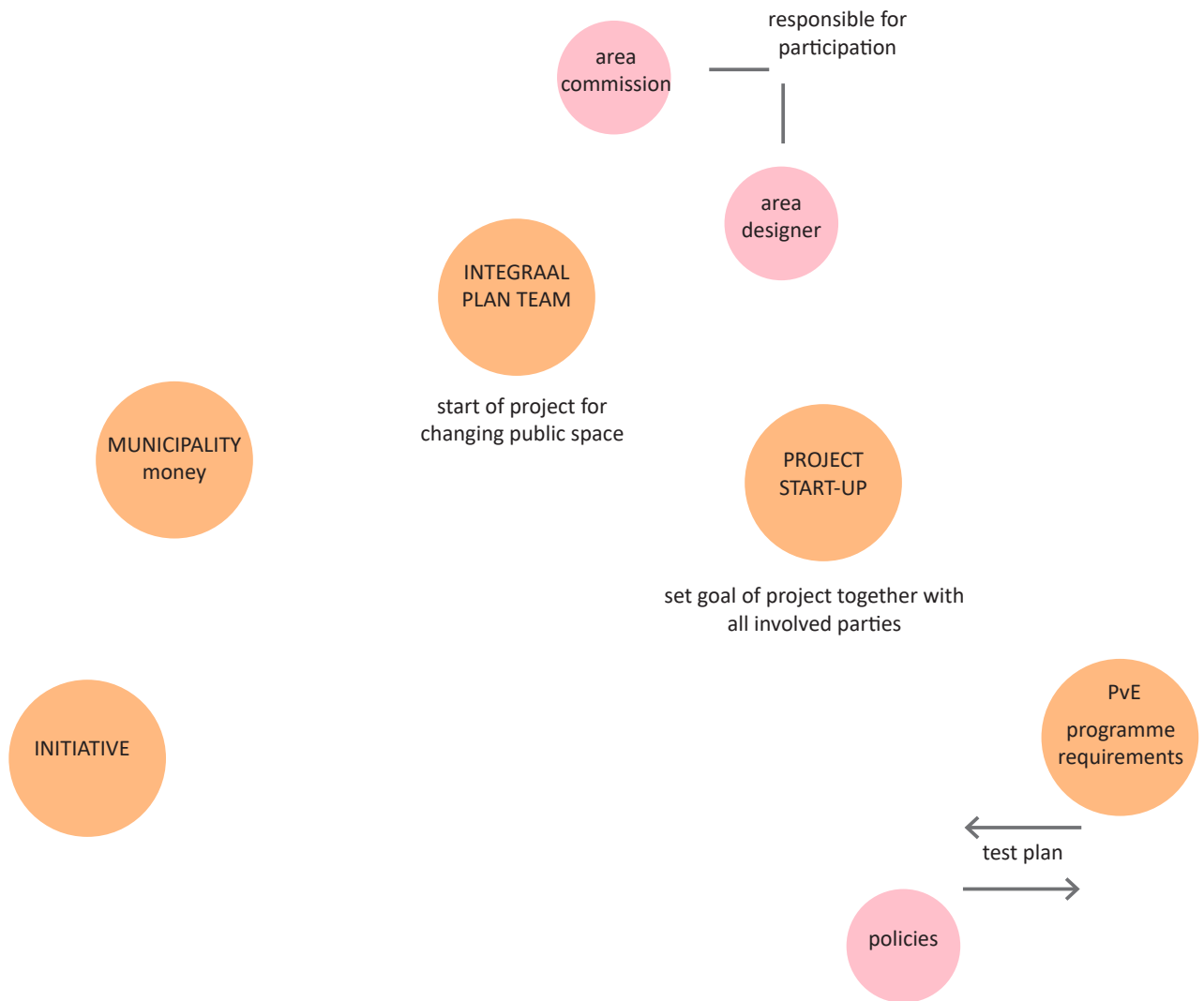
LINK BETWEEN MUNICIPALITY AND LOCAL INHABITANTS

Image 19 | Source: author

'INRICHTINGSPLAN' PROCEDURE - THE PROCESS FOR PLANNING PUBLIC SPACE

responsible for
participation

area
commission

area
designer

INTEGRAAL
PLAN TEAM

start of project for
changing public space

MUNICIPALITY
money

PROJECT
START-UP

set goal of project together with
all involved parties

PvE

programme
requirements

INITIATIVE

test plan

policies

TOP-DOWN
*INITIATIVE MUNICIPALITY OF
ROTTERDAM*

BOTTOM-UP
*INVOLVEMENT OF LOCAL
CITIZENS*

FINAL
DESIGN

DO - definitief ontwerp

OPINION
PARTIES

small scale
fireman, maintenance, cleaners

DRAFT
DESIGN

VO - voorlopig ontwerp

DRAFT
DESIGN

PROCESS
FEEDBACK
by plan team

SEND FOR
FEEDBACK

large scale
to all involved parties
"bewonersavond"
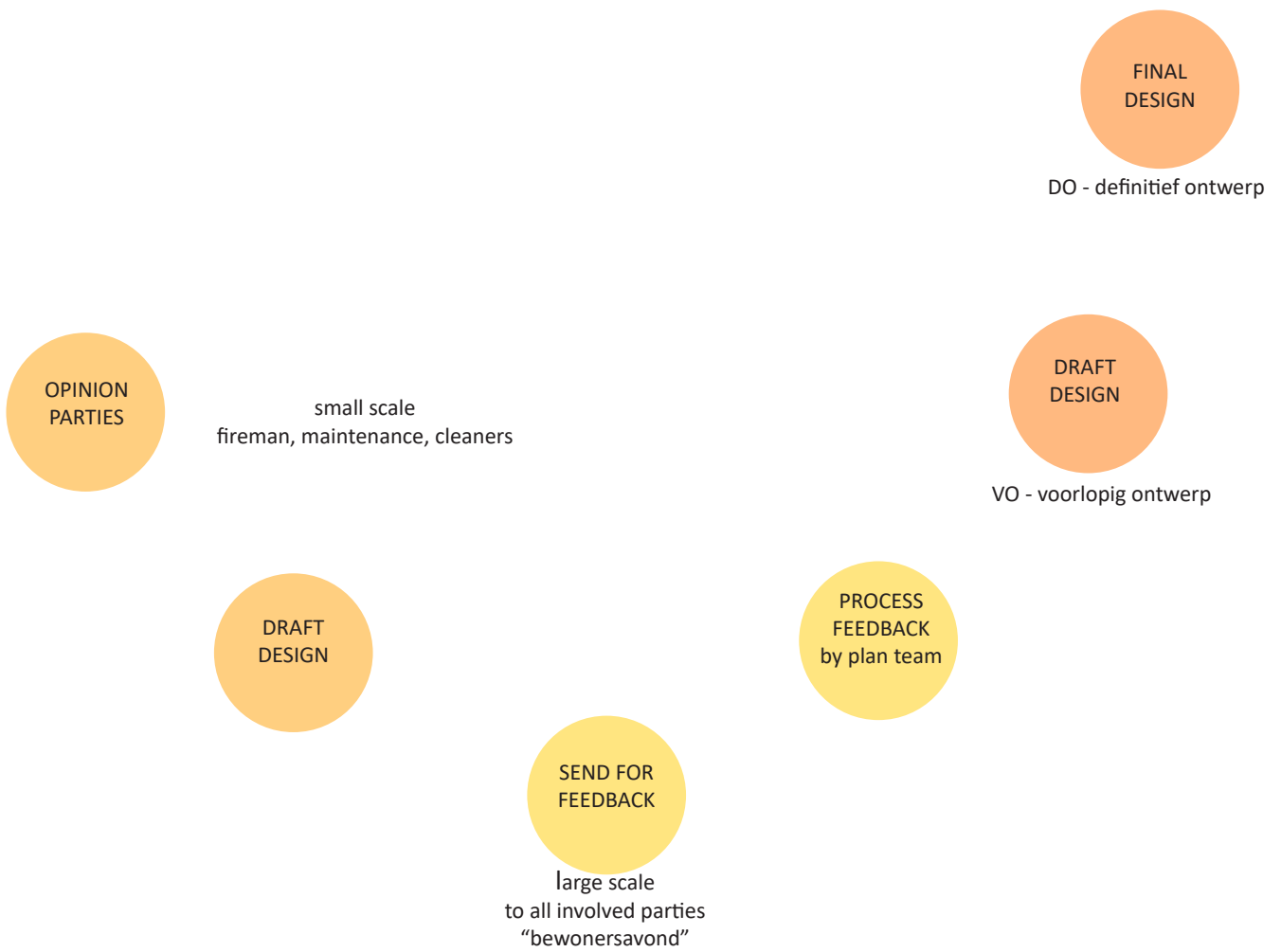
Image 20 | Source: author

4.2.3 Development of a new law

In January 2019 there will be introduced a new Environment and Planning Act called 'Omgevingswet' The new act is introduced to create a better overview of all the rules about spatial initiatives when starting a new project in public space.

The Environment and Planning Act focusses on the physical environment and gives better insight into the set of rules which makes the implementation easier and decision making faster.
The big difference with the existing law is the focus on the user. The new law should make it easier for everyone to start a new initiative/project and enables more bottom-up initiatives.

4.2.4 Conclusion

Within the structure of the municipality, everyone has connections to local inhabitants, but this works inefficiently. In the IP procedure, the local inhabitants only have something to say when the whole initiative has started already.
The new Environment and Planning Act 'Omgevingswet' is a good start in giving more insight into starting new initiatives. But it asks for better awareness of citizens and the municipality for a cultural change. People should use their own creativity to use the different possibilities within this law instead of sticking to their old habits. With this new law it is possible to involve more different actors in the planning process. Therefore, professionals and other people involved need to be better informed about using this new law. The focus should be more towards the implementation of the law by enhancing knowledge, skills and cultural change.

ANALYSIS OF RESULTS

TOP-DOWN PLAN	city vision	Rotterdamse stijl	vision Beverwaard
TOP-DOWN PROCESS	stucture municipality	IP procedure	Nieuwe Omgevingswet
REVISE CURRENT PLAN link plan to process to people	conclusions plan+process	problem: money	search for opportunity
WATER	history Rotterdam	water vision municipality	water structure Beverwaard ・ link water to ps Beverwaard
	RCP 2025	watercity 2035 ・ waterplan 2	gebiedsbestemmingsplan Beverwaard - wateradvies ・ river, dike, singels, canal

Image 20 | Source: author

4.3 ANALYSIS OF RESULTS

The research question asks how top-down and bottom-up can be engage. For this, the link between the regeneration plan and the process is important. To involve the local citizens in the urban regeneration plan, there needs to be a change in the planning process. How to link the process of urban regeneration to the existing vision of the municipality of Rotterdam and to the demands of the local citizens?

In the previous chapters, the planning system of Rotterdam is described. This shows that there are connections with local citizens, but their opinion is not involved structurally into the process.

Experts from the municipality are talking to local citizens. But the main issue why input of local inhabitants is not taken into account, is that there is no money to make small changes in public space. To get the attention from the municipality to invest in public space is the case when there is a high need for change, for example when there is a problem.

This is the case for Rotterdam and water. Rotterdam, as water city, always had to deal with protecting its city from water. But since the extreme climate cases, water is a becoming a bigger problem and at the same time chance for the city of Rotterdam. By investing in local public space, the social problem and the environmental problem can be solved in one. This by changing the local public space to adapt water, and improve the quality of the public space with input from local inhabitants. In this case, water management can be linked to urban regeneration and solve problems at multiple scales at once. Tackle the water problem at local scale, neighborhood scale which will have effect on city scale. At the same time by improving the public space to adapt water, the public space can be improved to stimulate social interactions and improve the living environment and stimulate the local economy. The link between the plans, processes and water vision is shown in image 20.

PLAN

small scale projects
cost time
and money

PROCESS

start initiative
when problem

CHANCE

physical need
to change
public space
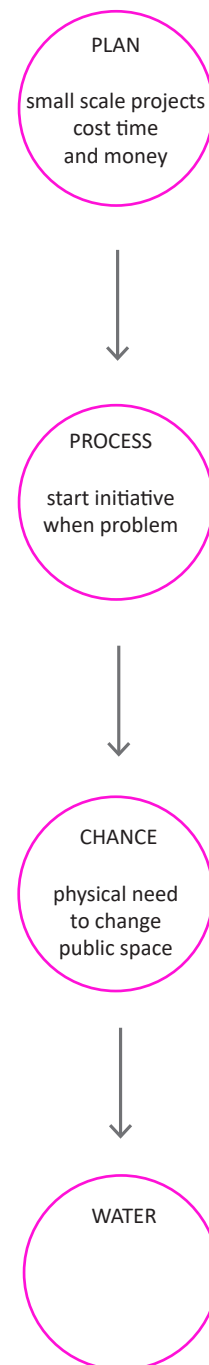
WATER

Image 21 | Link plan and process to water | Source: author

4.4 WATER VISION ROTTERDAM

This chapter will describe the role of water in the city of Rotterdam, the vision for living with water, and the water system in Beverwaard specific.

4.4.1 Water vision Rotterdam

Rotterdam is the water city of the future. The city is located six meters below sea level and is active with making the city resilience for the future climate change. With innovative changes from defending ourselves against the water to living with the water, Rotterdam is one of the most innovative cities in the world when it comes to water. The South of Rotterdam, where the problem neighborhoods of Rotterdam are located, is also called "the new Brooklyn along the river Maas".

Rotterdam's city structure is following old water patterns, like polder structures. But the traditional way of water management is not enough for the future. It is too difficult to make storages in old neighborhoods, or demolish buildings. This is why innovative initiatives like water squares and green roofs are essential for the development of the city. The Rotterdam Climate Proof (RCP) program (2025) is focused to retain, drain, and pump and the quality of water. By retaining water (finished projects like the carpark under museum square, water square and green roofs) the city thinks about new innovative ways to deal with water. The current drainage and pumping system should cover extreme rainfall. And the sewage system must be segregated for the whole city.

With the architecture biennale in 2005, Rotterdam made a start to connect the city to water. It is important to make a link between urban design and water management according to Watercity 2035. By improve water management of the city and change the urban design at the same time, the city will be "more attractive to middle- and high-income earners. (..) This can be achieved through investments in urban areas along the river."

"Threats must be transformed into opportunities". The municipality of Rotterdam and the water board made a plan to prevent flooding, create storage, improve the water quality and protect citizens from the water. This plan, called 'Waterplan 2', started in 2007, when a lot of green space and water storage was realized. Then Rotterdam became the water city of the Netherlands and a new edition of 'Waterplan 2' (Uitvoeringsprogramma water 2015).

4.4.2 Water advice for Beverwaard

With the water vision from the municipality of Rotterdam, advice for improvements are made per neighborhood. In the document 'Gebiedsbestemmingsplan Beverwaard – wateradvies' (feb, 2016) is shown how the water system, the polder system, for Beverwaard is working (see image 22a). There are different water flows in the city: rainwater, surface water (singels, river), ground water (level), and waste water (sewage).

The flood risk for Beverwaard is low, since the Oostdijk is a primary flood defense. The ground water level for Beverwaard is -2 m, -2.5 m NAP (below sea level) (see image 22c).

From the spatial analysis is concluded that the main important shared public spaces in Beverwaard are connected to water, by combining the water analysis with the spatial analysis of Beverwaard. For each theme, a set goal is made linked to the water vision of Rotterdam:

- Singels – create maximum water surface
- Oude Watering – create a mixed use area
- River De Nieuwe Maas – 'buitendijks' housing combined with recreation
- Dike as barrier – link the neighborhood with the river (visual and functional)

Each of these places have their own problems and potentials. By solving water problems for Beverwaard and the city of Rotterdam, the public space of Beverwaard can be changed and improved at the same time. In this case, spatial problems can be solved and potentials can be used for improvement of the neighborhood.

WATER ADVISE FOR BEVERWAARD

Figuur 4.1 Oppervlaktewatersysteem rondom plangebied
Image 22a | Source: Gebiedsbestemmingsplan Beverwaard wateradvies, 2016
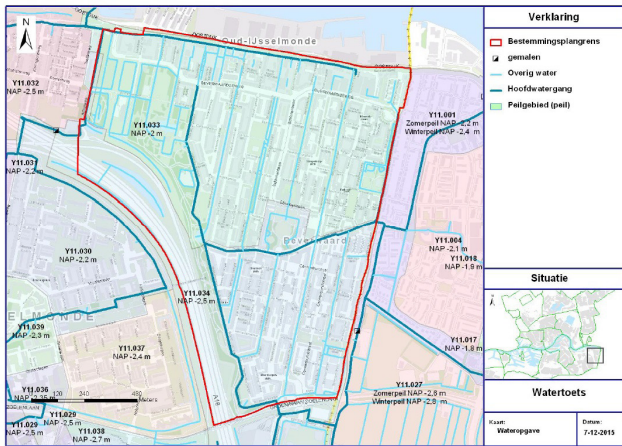
MAIN WATER STRUCTURE BEVERWAARD

Figuur 4.3 Overzicht rioleringssysteem plangebied
Image 22b | Source: Gebiedsbestemmingsplan Beverwaard wateradvies, 2016
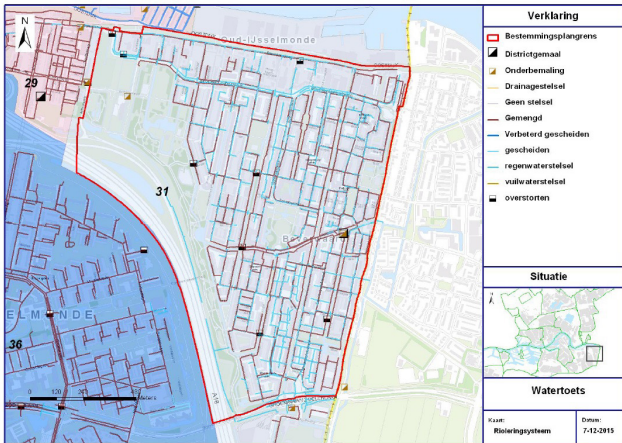
SEPERATED SEWAGE SYSTEM BEVERWAARD

Figuur 4.6 Wateropgave plangebied volgens Herijking Waterplan [Rdam 2013a]
Image 22c | Source: Gebiedsbestemmingsplan Beverwaard wateradvies, 2016
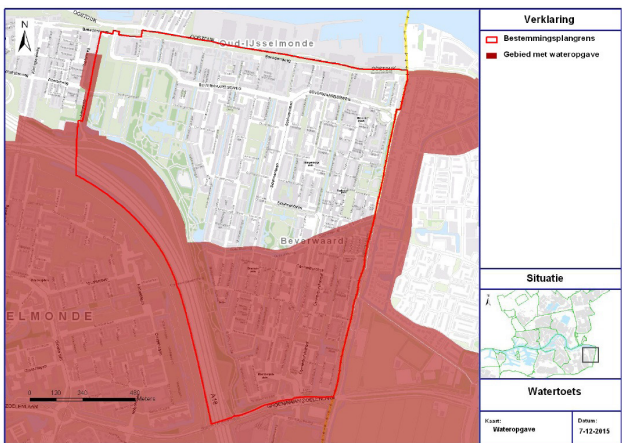
ACTION AREA FOR BEVERWAARD

4.4.3 Conclusion

Looking at the water issues of Rotterdam in general and Beverwaard in particular, it is important to ask the local citizens about their opinion about the water issues. On the other hand, it is important to inform them about the current problems in a way that they are aware about what is going on and can help thinking out solutions.

"THREATS MUST BE TRANSFORMED INTO OPPORTUNITIES"

R'dam water city + Climate change + Sustainable urban development

Image 22d | Link water management to urban regenerationSource: author

4.5 FINDINGS FROM BOTTOM-UP APPROACH

This chapter shows the problems and assets for the neighborhood Beverwaard from the perspective of the local inhabitants.

4.5.1 Local initiatives

By researching Beverwaard and talking to local citizens, I found out that there is a lot going on in Beverwaard. A few active neighbors are taking a lot of initiative by realizing wonderful things which are important for the neighborhood.
Ronald Schuite, citizen of Beverwaard, owns the local most popular cafeteria of Beverwaard called Verhage, located along the square in the central shopping area. Besides this, he started a new initiative a few years ago to change the negative image of the neighborhood into a positive vibe. With a new Facebook page 'Like je wijk' messages could be shared between local citizens and positive initiatives were shared online so everyone knew what was happening in their neighborhood. 'Like je wijk' is now an often used network by local citizens to share information among each other, but also used by the municipality to ask for feedback or to inform about projects. Another active neighbor of Beverwaard, Ruud Spruit, is a photographer and writes about local activities on his website Beverwaardigheden.nl. His site tells you what is going on in the neighborhood.

Besides these online platforms where local citizens are active involved, there are a few small scale projects happening in Beverwaard. Because the AZC (a refugee center) was placed in the South of Beverwaard, in return the municipality of Rotterdam gave extra money to Beverwaard to invest in small scale initiatives for public space. Local citizens have been asked what they wanted to change in public space, and some good ideas are now implemented: Pleintje Bouvignepad – Cannenburchstraat (see image 23): This little project is about a small square in the corner of the street. Inhabitants had the idea to make a pocket park at this location, to make it greener with trees and edible plants. A similar project along the singel is shown in image 24.

Sketches from local initiatives to change public space A

Bouvignepad-Cannenburchstraat
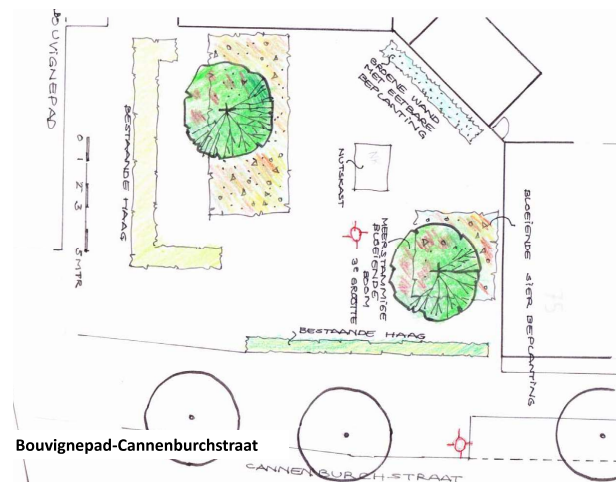
Image 23 | Source: Toos Landman

Sketches from local initiatives to change public space B
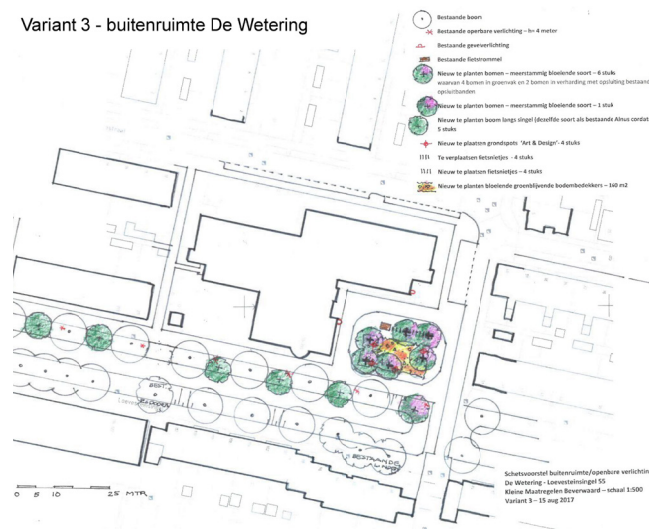
Image 24 | Source: Toos Landman

4.5.2 Online survey results

After creating a better focus by researching the physical aspects of the neighborhood and vision of the municipality, including the water management vision, specific questions could be ask. The focus for the online survey was on the main shared public spaces: water singels, canal and shopping area the Oude Watering and the connection to the river the Nieuwe Maas. The questions were about the positive or negative experiences and new possibilities for the neighborhood. To reach as much citizens as possible, an online survey with qualitative questions is used and distributed through social media. What do they think about the local social problems in the neighborhood, the water issue of Rotterdam and overall about public spaces in the neighborhood? With the information of the online survey basic guidelines of the demands of the local citizens of Beverwaard are formed. This will be a start of what needs to change in the public space. Out of the survey, positive and negative aspects about the public space of the neighborhood will be revealed.

Content analysis

Because this survey is part of qualitative research, most of the questions were open questions. Every citizen has his own answer. By categorizing the answers, a lot of people think similar things. The answers about the singels are organized in two groups. One group with all the people who liked the singels and one group of people who did not like the singels. Then all the answers of one group are categorized in themes: nature, green/water, no cars and atmosphere.

This method, called 'content analysis', is used to collect and order all the positive and negative thoughts about the public space of Beverwaard, specific about the three main subjects: singels, oude watering and the connection to the river. Many answers are given to all the questions, but only the ones who refer to the physical aspects of the environment are used. The next two pages show the outcome of the survey in nine different charts.

FOUR MAIN SHARED PUBLIC SPACES
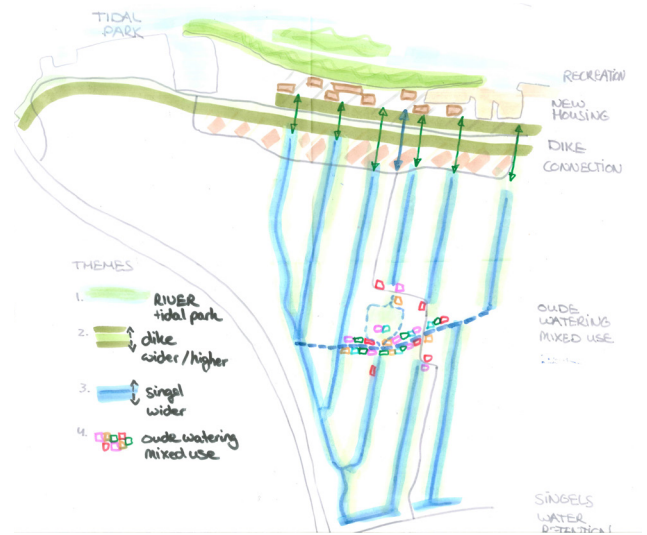
Image 25 | Source: author

Main shared public spaces as input for online survey:

1. Canal Oude Watering - create a mixed use area

2. Singels - create maximum water surface

3. Dike - link the neighborhood with the river (visual and functional)

4. River Nieuwe Maas – 'buitendijks' housing combined with recreation (see image 25)

Oude Watering

The shopping area along the canal Oude Watering is a popular place for local citizens to gather together while doing their daily shopping. 11% of the people enjoyed the area because of the shopping functions. But most of the people have a negative feeling about the area because of the vacancy and wrong people hanging around in the area. Some people like the atmosphere, others do not. The lively and fun aspect of meeting people in the center are overruled by the trash in and around the water and the unsafety due to (motor)bikes riding.

OUDE WATERING POSITIVE

■ Voorzieningen Winkels ■ Sfeer gevoel ■ Gezellig ■ Activiteiten ■ Centraal
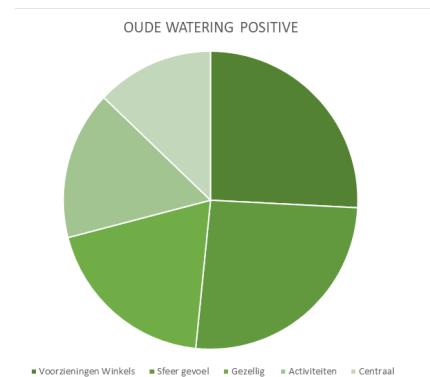
Singels

The singels of Beverwaard are not seen as recreational spaces to gather together or stay for a while. Local citizens like the green atmosphere, but because of trash and smell, they would not stay. Citizens like to walk (the dog) along the singels since there are no cars around which makes it quiet. Shown in the diagrams, most of the citizens do not like the atmosphere of the singels and think it is dirty (38%).

SINGELS POSITIVE

■ sfeer gezel ■ water groen ■ wandel rust natuur ■ dieren ■ afwisseling ■ auto
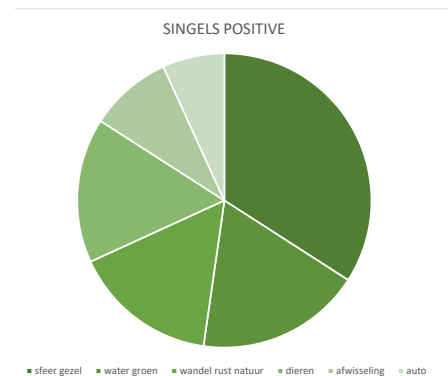
River

The river area at the north side of Beverwaard is currently an industry area which blocks the connection to the river. In the survey is asked if people would like to change this area by demolishing the industry and use the space for something else. Most of the people wanted to use the area for recreation or sports (62%). The citizens of Beverwaard like the idea of the view over the water and walking along the river.

RIVER POSITIVE

■ Mooi uitzicht ■ Wandelen ■ Gezellig leefbaar ■ Reizen vervoer ■ Recreatie

OUDE WATERING NEGATIVE

Leegstand   Hangjongeren   Ongezellig   Vies   Fietsers   Onveilig

OUDE WATERING OVERALL

Fietsers/brommers 3%   Onveilig 1%
Vies 4%
Centraal 5%
Levendig activiteiten 7%
Gezellig ontmoeten 8%
Ongezellig 10%
Sfeer gevoel 11%
Voorzieningen Winkels Boodschappen 11%
Hangjongeren 19%
Leegstand 21%
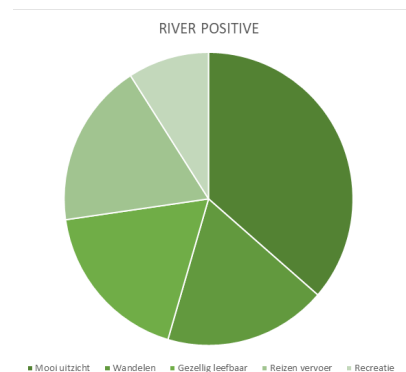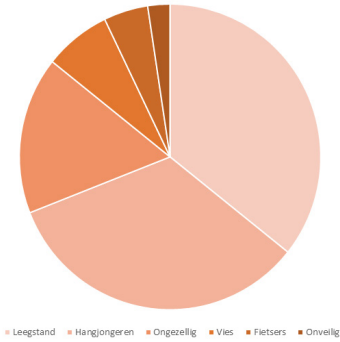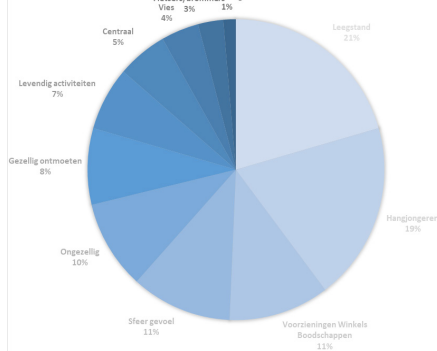
Thoughts of local citizens:

Positive:
shops
activities
nice atmosphere
meet people

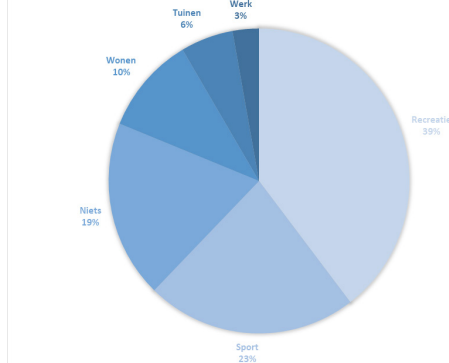Negative:
vacancy
unsafe
trahs

SINGELS NEGATIVE

Vies troep   Stank dieren   Slecht onderhoud   Sfeer   Hondenpoep

SINGELS OVERALL

Hondenpoep 3%
Autovrij 4%
Afwisseling 6%
Sfeer 6%
Slecht onderhoud 6%
Stank dieren 6%
dieren 10%
wandel rust natuur 10%
Water groen 11%
Vies troep 16%
Sfeer 22%
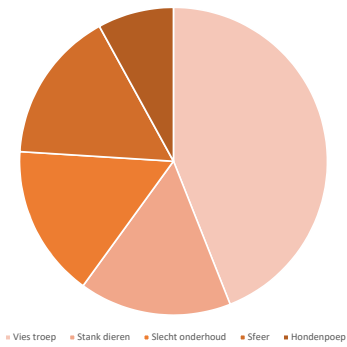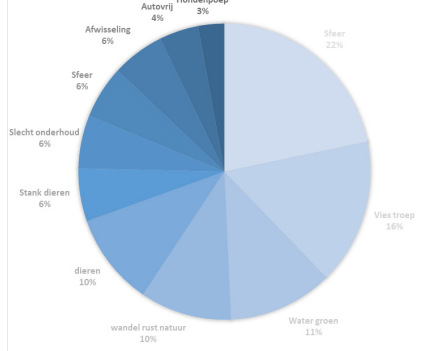
Thoughts of local citizens:

Positive:
green
nature
peace
no cars

Negative:
trash
smell
bad maintenance

RIVER NEGATIVE

Niet nodig   Rivierpeil   Verkeer

RIVER AREA ACTIVITIES

Werk 3%
Tuinen 6%
Wonen 10%
Niets 19%
Sport 23%
Recreatie 39%
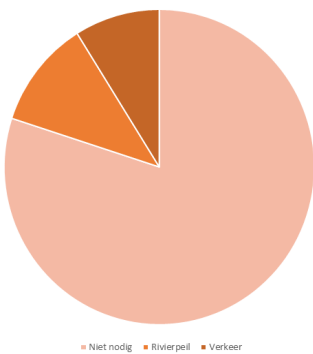
Conclusion
These graphs shows the most important opinions, feelings and thoughts of local citizens of Beverwaard about their neighborhood. With the findings of the online survey, I developed statements for further discussion.

Image 26 | Charts from online survey | Source: author

4.5.3 Focus group

To get more specific information, a focus group is held, using the outcome of the online survey as a starting point. In the survey multiple problems are described which are all important for the improvement of the neighborhood. But not all problems are directly linked to the design of the public space. For example, the bad maintenance, inhabitants talk about, is not something which can be solved in a physical design. But the design can take this into account in making the maintenance easier by using a certain type of green. Twelve possible solutions are made for the problems and opportunities described in the online survey. These statements are chosen as the most important,

accurate interventions after analyzing the online survey.

In this focus group, five local inhabitants of Beverwaard give their opinion and discuss different statements focused on the four shared public spaces linked to water in Beverwaard (described in chapter 12). Why do they see it as a problem? And what kind of solutions are realistic? A method of Jurrian Arend, to gain information from local citizens for a co-creation design, is used to communicate the statements together with a visual to start a discussion with the local citizens (source). The citizens liked or disliked every statement and linked them to specific locations.

Image 27 | Discussion urbanist and local citizens | Source: author

Image 28 | Local citizens grade statements | Source: author

RIVER AREA

RECREATIE AAN RIVIER

RECREATION
 a new recreational area along the
river to sport, walk or swim

Een nieuwe verblijfsplek maken aan het water, om te
sporten, wandelen, zwemmen

WONEN AAN DE RIVIER

HOUSING
new apartment blocks as an
extension of the old neighborhood

Uitbreiding van de wijk Beverwaard met luxere woningen
aan het water

SLOOP VERVALLEN INDUSTRIE

DEMOLISH INDUSTRY
demolish old industry and vacant
buildings to make room for new
initiatives
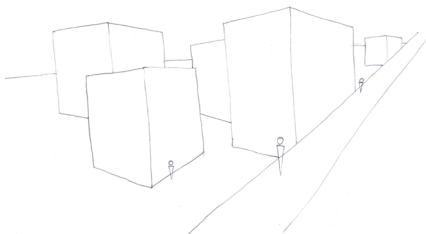
Industrie en leegstaande panden aan de rivier slopen om
ruimte te maken voor nieuwe initiatieven

Image 29 | Statements focus group |Source: author

SINGELS

WATER RUIMTE GEVEN
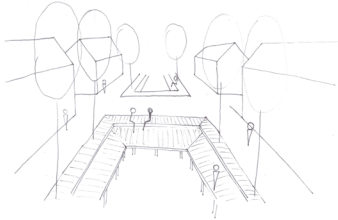
Ruimte geven aan het water door de singels te verbreden
en zo de kwaliteit van de buitenruimte te verbeteren

ROOM FOR WATER
broaden the singels to create more
space for the water and improve the
quality of the public space
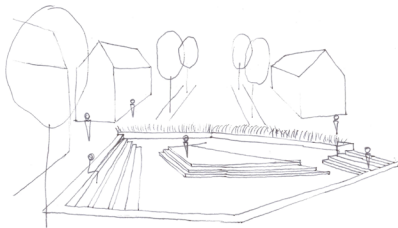
WATERPLEIN

Een waterplein als nieuwe ontmoetingsplek in de wijk
waar kinderen kunnen spelen en water wordt opgevangen

WATER SQUARE
a water square as new meeting place
in the neighborhood where children
can play and water can be stored

MEER GROEN
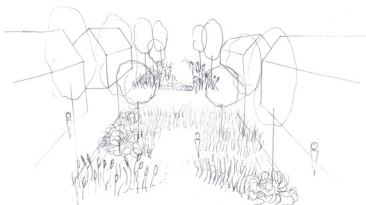
Meer verschillende soorten groen voor een divers en natu-
urlijk uiterlijk wat tegelijkertijd zorgt voor waterinfiltratie

MORE GREEN
 more divers green for a natural
environment which function as water
retention

OUDE WATERING

ZITPLEKKEN
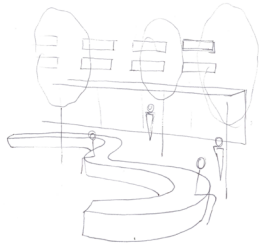
Zitplekken maken in het winkelgebied voor ontmoeting
tussen bewoners wat zorgt voor sociale veiligheid

SEATINGS
create seating in the shopping area
for citizens to meet and create social
security

TRANSFORMATIE LEEGSTAANDE WINKELPANDEN
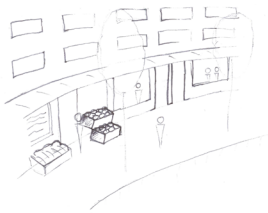
Het transformeren van leegstaande winkelpanden tot
woningen om leegstand op te vullen en ervoor te zorgen
dat elk uur van de dag activiteiten zijn in het winkelgebied

TRANSFORMING VACANT RETAIL
the transformation of vacant retail
buildings into housing to fill in the
vacancy and create social security
every hour of the day

KADE

De kade verlagen om het water onderdeel te laten zijn van
de openbare ruimte waardoor de kwaliteit ervan wordt
verbeterd

WATER SIDE
lowering the water side to make
water part of the public space and
improve the quality

DIKE

STAIRS
large outstanding stairs connecting
both sides of the dike
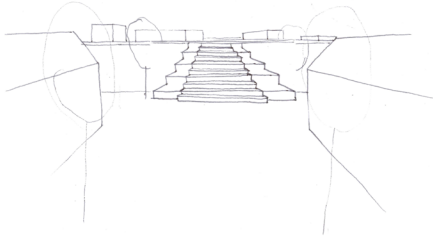
TRAP

Een grote opvallende trap maken over de dijk om een directe (functionele) verbinding te maken van de wijk naar de rivier

OPENING IN THE DIKE
an opening in the dike for a visual
connection with the area outside the
dike.

OPENING IN DIJK

Een opening in de dijk maken voor een visuele verbinding van de wijk naar de rivier

NEW BUILDINGS
show visual change from old
neighborhood to higher buildings
along the dike

NIEUWE HOGE WONINGEN
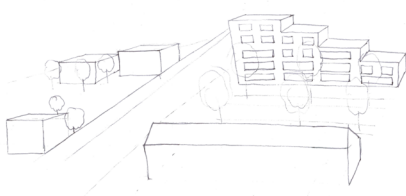
De bebouwing langs de dijk in hoogte aan te passen voor een overgang/verbinding naar de dijk in gebouwhoogte

Image 29 | Statements focus group |Source: author

4.5.4 Focus group outcome

The focus group outcomes are analyzed by content, resulted in the following themes seen as the most important:

Recreation:
- Beautiful recreation area
- There is a need for a recreational area
- An area like Brienenoord island
- Combination of recreation and housing: only if the buildings do not block the view
- View to the river is a must
- Recreation along the river is attractive to schools
- Beverwaard and IJsselmonde need an attractive recreational area to walk, cycle and sit along the water
- A new island in the river
- Housing along the river combined with recreation

Demolishing industry:
- Demolish old buildings to make room in the area along the river
- Current industry blocks the view to the river
- Some old buildings are still in use by ship building companies
- Housing and industry is there already, so new buildings are no problem
- The current industry buildings look awful

Route / path:
- A walking path, cycle path and boulevard along the river
- Current path close to the river does not continue, it is interrupted
- If there is a place close to the water, it is not connected to a route
- The path along the river is not connected to the other neighborhoods
- There is a need for one long route along the water which is not interrupted

Singels:
- No water in the basements of the houses
- Water storage, give water more space
- More green
- Singels need to be more clean and green
- To continue the line of the singels in the area before

the dike, there is a need to make room
- Small ditches do not have a proper function
- Singels and Oude Watering: do something with green
- All singels in the neighborhood are just straight long lines
- Make small ditches wider

Shopping area:
- Main square need more green
- The area is renovated in 2006, but the green got worse
- More activities on the square
- A market would be nice
- Keep the focus to the center of the neighborhood so more people will come to the shopping area
- An initiative for flowers in the shopping area was rejected by the municipality
- In shopping area is a lot of nuisance
- The café located along the square is a nice place in the Oude Watering canal area
- The benches in between hedges along the canal are not a nice place to sit
- Seating with space for multiple people in the area will create participation, people can sit next to each other

Water square:
- The Oude Watering canal looks like an empty grey box
- Currently the area is empty, a water square would be a nice view
- Water square attract people
- The wide area of the canal (with the wooden platforms in the water) is a place with space for interventions
- Water square should be in the center, not anywhere else in the neighborhood

Transformation in the shopping area:
- Transform vacant retail building: no
- Transformation will drive retailers away
- The new houses will be too expensive, and people will close the curtains anyway
- An idea for retailers is to share a building, it will make it less expensive
- There is a need for fresh products
- Grocery store, cheese shop, bakery, butchery, flower kiosk
- Vacant buildings should be used for entrepreneurs

Dike:
- Stairs on the dike: yes
- View will improve with a nice-looking staircase
- Water staircase
- Emphasize location where there is a water inlet
- Dike area: ugly housing and industry in the way
- Traffic on the dike-road is too dangerous to cycle
- Need for a cycle path

Neighborhood:
- Only housing, no other functions
- Noise of the highway
- The neighborhood is dirty
- Beverwaard is full with same housing blocks
- If a new place is built, it will be a chance for young
people to cause nuisance
- A fountain with light will be nice
- Community gardens
- Improving public space will encourage people to
participate in public space
- Camera security will help preventing nuisance
- The entry of the neighborhood is not safe for slow traffic

With this specific information, a proposal for a design will
be made. This design focus on the improvement of the
public space of Beverwaard. This is why the statement
made about security cameras is not taken into account
for the design. Having the knowledge of the water vision
and the vision of the municipality of Rotterdam helped by
making the selection of themes to focus on.

Conclusion
From above information, the main discussed issues are
used as a start for the design. Doing content analysis on
the whole discussion, the following themes were most
important:
1. The singels need to change: more green, give room for
water
2. A new recreation area along the river Maas: cycle route
and pedestrian path
3. The focus to the center of Beverwaard to make it more
attractive: water side lower, creating seating, more green,
add special function.
4. Connect recreation along Maas to the center of
Beverwaard: improve accessibility of neighborhood.

5. PROPOSAL

I. CONTEXT

II. THESIS STRUCTURE

III. MAIN ANALYTICAL FRAMEWORK

IV. FINDINGS

V. PROPOSAL

DESIGN   NEW PROCESS

VI. APPROACH
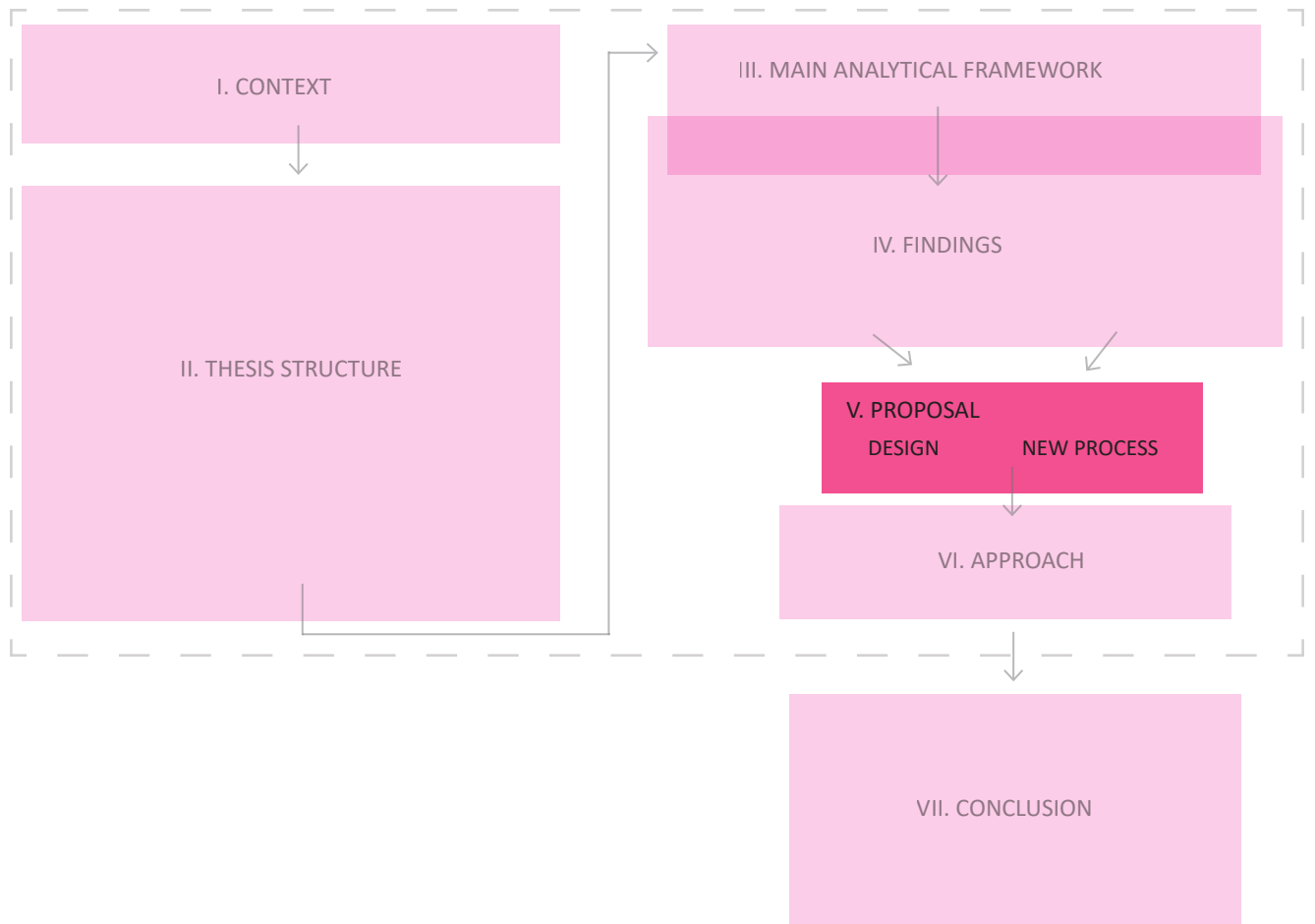
VII. CONCLUSION

5. PROPOSAL

5.1 DESIGN AND PLANNING CHALLENGE

This chapter describes the main conclusions and challenges of the findings of previous chapters, and what needs to take into account for the final outcome.

Top-down plan
The municipality of Rotterdam wants to create a public space network to improve the city as a whole, using the set guidelines described in the vision for public space. The design challenge is to translate the broad vision into a specific local spatial design, using the set guidelines of the municipality.

Top down process
When in the existing process can local citizens involve as an actor? Taking the new law 'Nieuwe Omgevingswet' into account when starting new initiatives to change the public space shows how local citizens can be involved in the planning process. The involvement of local citizens in the process ask for a good communication skills to transfer knowledge and it ask for active citizens who are willing to make an effort to get informed about the process.

Water vision
Water is an important theme for the city of Rotterdam and needs to be addressed in every plan for public space, by taking the water challenges into account for the design and show local citizens the importance of these interventions, so they will understand why specific changes are happening in public space.

Bottom-up demands
For a new design for the public space of Beverwaard, all the demands of local citizens need to be addressed, using the outcome of the online survey and focus group.

5.2 PROPOSAL

To get to the final new regeneration plan for the public space of Beverwaard, the current regeneration plan and process need to take into account as well as the bottom-up demands and the water issues the city of Rotterdam is dealing with. By linking all analyzed information together with creative thinking, a new urban regeneration plan will be developed. The new urban regeneration plan will address the water challenges, the vision of the municipality of Rotterdam and the demands of the local citizens. By this the neighborhood of Beverwaard will be improved.

With a new design for the public space of Beverwaard, physical improvements will contribute to the social improvement of the neighborhood. Improving local public space by design will stimulate local economy and local citizens to participate in public space.

The process to come to the design, will show the possibilities to change the current planning process of the municipality. An improved planning process will be proposed to improve the involvement of local citizens.

What is needed to change the current planning process to reach the result? The involvement of local citizens in the regeneration process is essential to let the plan work. This is why another process was needed to change the public space of Beverwaard.

By involving local citizens at the start of a planning process, their opinion can be taken into accaunt together with all the demands of the other actors. Involving local citizens will ensure a successful development if they are involved, they know what is going on and they can participate and feel responsible.
Besides this, as said before, local citizens know their neighborhood the best, know what is going on.
So they can help the planners by giving essential information about the neighborhood.

6. APPROACH

- I. CONTEXT
- II. THESIS STRUCTURE
- III. MAIN ANALYTICAL FRAMEWORK
- IV. FINDINGS
- V. PROPOSAL
- VI. APPROACH
  - NEW URBAN REGENERATION PLAN
- VII. CONCLUSION
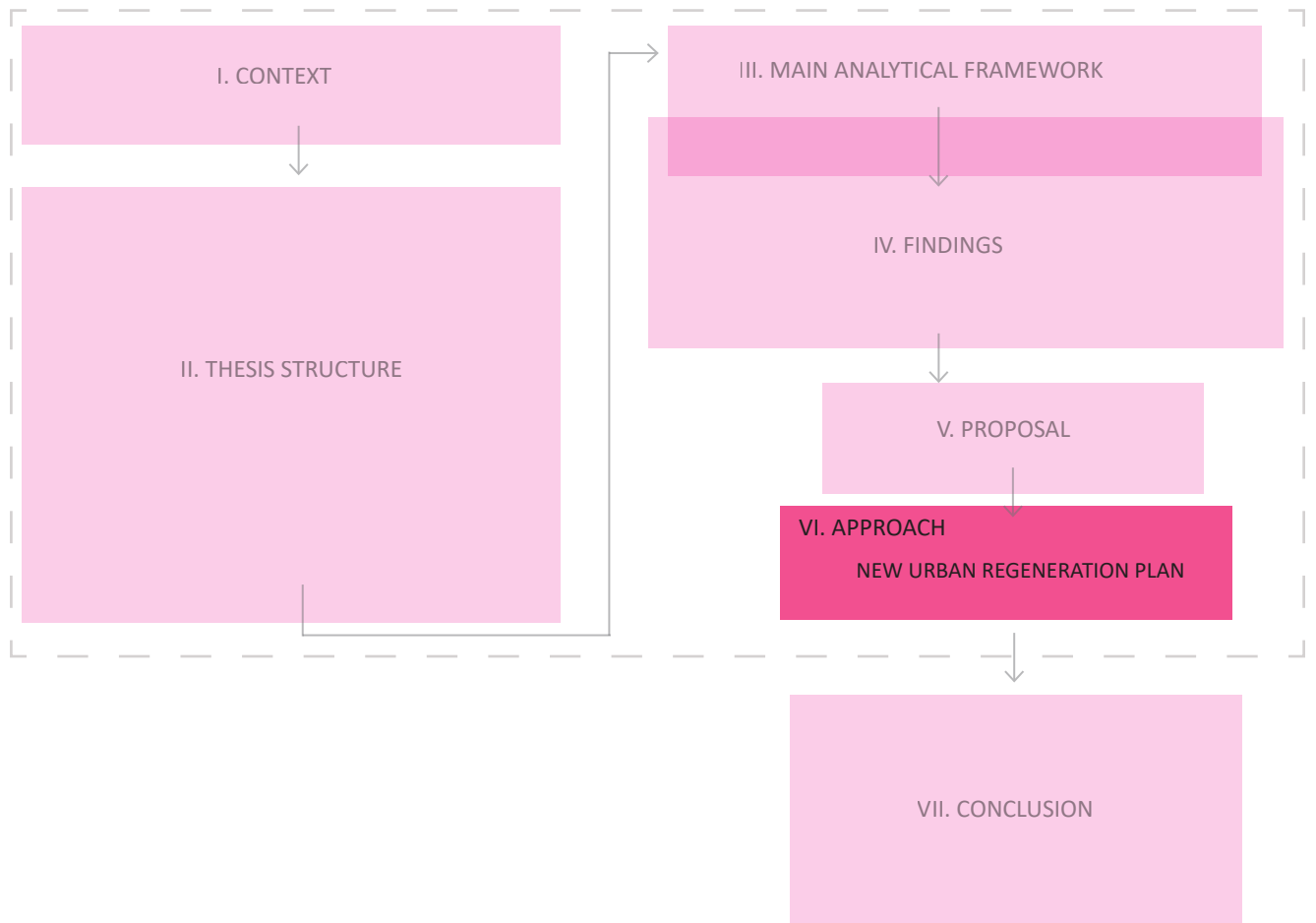
6. APPROACH

6.1 OUTCOME PROCESS

This chapter describes the change of the process of changing the public space. By looking at the current process, and ask actors what they think, a change is based on input from different experts working with the process.
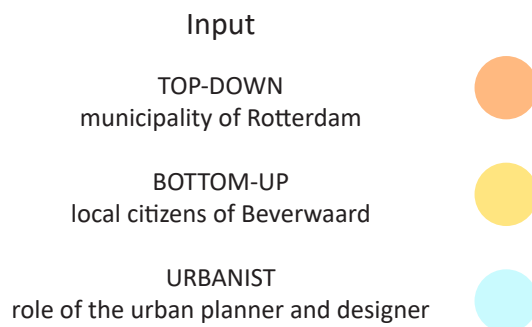First the current process will be described, then a proposal for a new process will be introduced based on the analysis done by interviews and desktop research. Then the role of the urban planner/designer will be described.
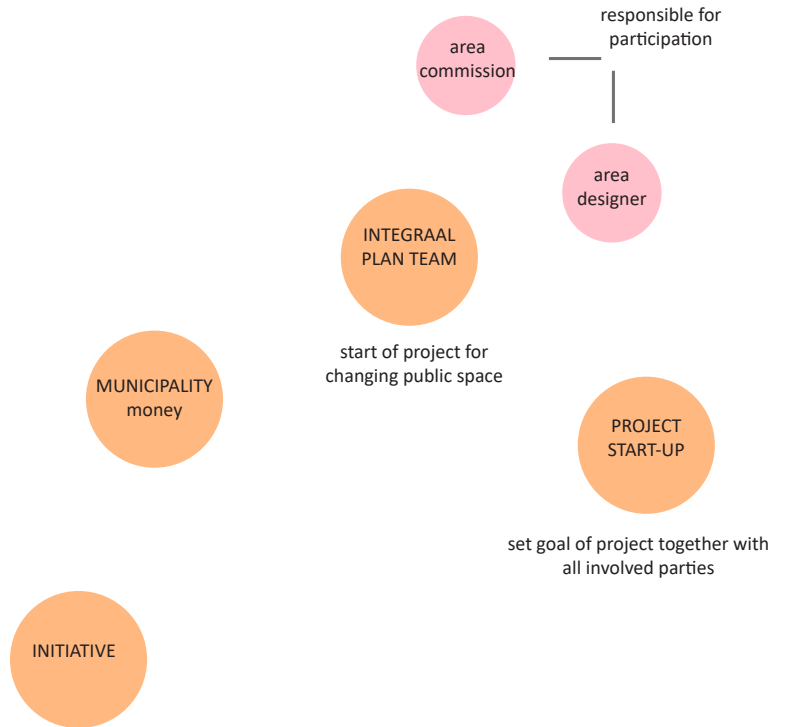
CURRENT PROCESS

The main way of planning in Rotterdam is described in chapter 4.2. This chapter concluded that the current way of involving citizens in the planning process is not working efficient. In the main used process, citizens are not particularly involved in the initiative phase of the process, but only in later stages. This scheme shows the main structure of the planning process to change the public space. Most of the time the municipality is taking initiatives because they know what plans fit within the bigger vision, and what subsidies are available for different projects. Since a new initiative has to follow a lot of policies and laws, it makes it complex to not follow the main structure. Even this main process is not mandatory to follow, it is the easiest way for experts who are working in the field. Doing something different asks for experts of the municipality to be creative and take initiative to think outside of the box and change the process.

The new law 'Nieuwe Omgevingswet' is giving a better insight in the current procedures which makes it more easy to use them without sticking to one process. But it is not sure that this is enough to change people in taking initiatives. With a new example of a planning process, it will be easier to let the old habits go. Experts, entrepreneurs and local citizens can use this example for a new way of urban planning.
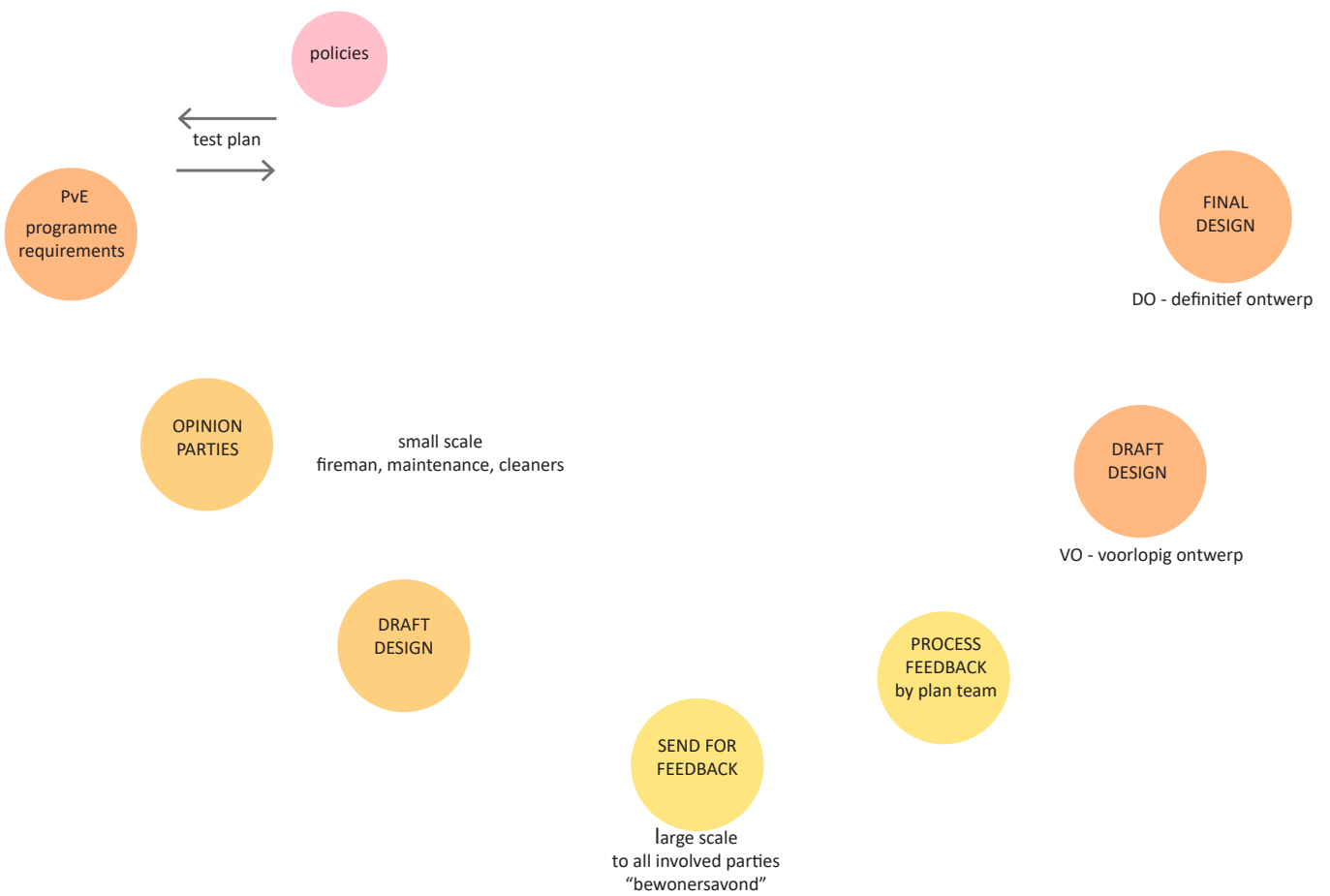
area commission

responsible for participation

area designer

INTEGRAAL PLAN TEAM

start of project for changing public space

MUNICIPALITY money

PROJECT START-UP

set goal of project together with all involved parties

INITIATIVE

Input

TOP-DOWN
municipality of Rotterdam

BOTTOM-UP
local citizens of Beverwaard

URBANIST
role of the urban planner and designer

policies

test plan

PvE
programme
requirements

FINAL
DESIGN

DO - definitief ontwerp

OPINION
PARTIES

small scale
fireman, maintenance, cleaners

DRAFT
DESIGN

VO - voorlopig ontwerp

DRAFT
DESIGN

PROCESS
FEEDBACK
by plan team

SEND FOR
FEEDBACK

large scale
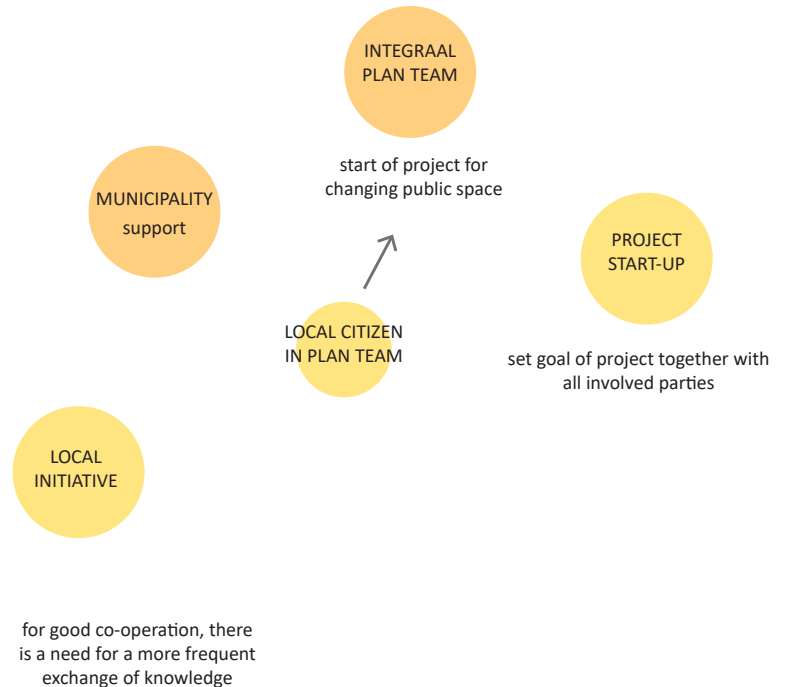to all involved parties
"bewonersavond"

NEW PROCESS

This new planning process is showing the opportunity, how local citizens can be involved in the start of the process. This process shows is very similar to the current process, but this shows the different steps in the process when citizens take initiative and who will be involved in the following steps. The colors show the difference between top-down and bottom-up.

If local citizens take initiative, all the steps after this will involve the opinion of local citizens. With this, there is a direct link between the new project and the opinion of local citizens.
When still the municipality takes initiative for a change in public space, this process shows how citizens can be involved in the plan team. After the initiative, a plan team will be formed to discuss the first steps and ideas. In this plan team, a local citizen should be involved. Local citizens are important actors in public space, because they use the space. This is why they cannot be left out of the plan team.

If the municipality takes initiative or a local citizen, it does not matter. But local citizens should be involved in the process in an early stage. It depends per project if local citizens should have a big role in the process or just a small part. First, citizens should always be informed about proposed changes in their neighborhood. Secondly, they can always give some interesting input to use in the project.
On the other hand, not all the input from local citizens can be helpful and some projects are too complex to exchange all the knowledge with local citizens. This is why the urbanist plays an important role in the whole process of changing public space.

INTEGRAAL PLAN TEAM

start of project for changing public space

MUNICIPALITY support

PROJECT START-UP

LOCAL CITIZEN IN PLAN TEAM

set goal of project together with all involved parties

LOCAL INITIATIVE

for good co-operation, there is a need for a more frequent exchange of knowledge

policies

test plan

PvE
programme
requirements

OPINION
PARTIES

small scale
fireman, maintenance, cleaners

DRAFT
DESIGN

SEND FOR
FEEDBACK

large scale
to all involved parties
"bewonersavond"

PROCESS
FEEDBACK
by plan team

FINAL
DESIGN

DO - definitief ontwerp

DRAFT
DESIGN

VO - voorlopig ontwerp

Image 31 | Source: author

OWN PROCESS

In a process of planning public space, many different actors are involved. Some playing a bigger role than others. Also every single person can have a different opinion which will make the process very complex and makes it difficult to take all the different demands into account. All demands need to be considered, and then decisions must be made by creating the best outcome for all the different actors together.
The expertise of the urbanist is key in this process. The role of the urbanist is to facilitate and translate all different demands into one spatial plan.

PROCESS OF CO-DESIGNING
This process shows In a process of planning public space, many different actors are involved. Some playing a bigger role than others. Also every single person can have a different opinion which will make the process very complex and makes it difficult to take all the different demands into account. All demands need to be considered, and then decisions must be made by creating the best outcome for all the different actors together.

ROLE OF URBANIST
The expertise of the urbanist is key in this process. The role of the urbanist is to facilitate and translate all different demands into one spatial plan. The process of how the outcome of this thesis is created and what the role of the urbanist was. It started with the initiative of the urbanist. After this the main actors who are involved in changing the public space of Beverwaard are involved. By talking to the experts from the municipality of Rotterdam and the local citizens of Beverwaard, a planned outcome for this thesis was formed. The urban planner set the requirements by reading all the policy documents. This is where the first idea of involving water in the project was formed. The proposed focus for public spaces linked to water was tested with a large group of local inhabitants by an online survey. The feedback and new input formed input for a proposed design solutions, drawn (draft design) together with different statements to test again with local citizens.
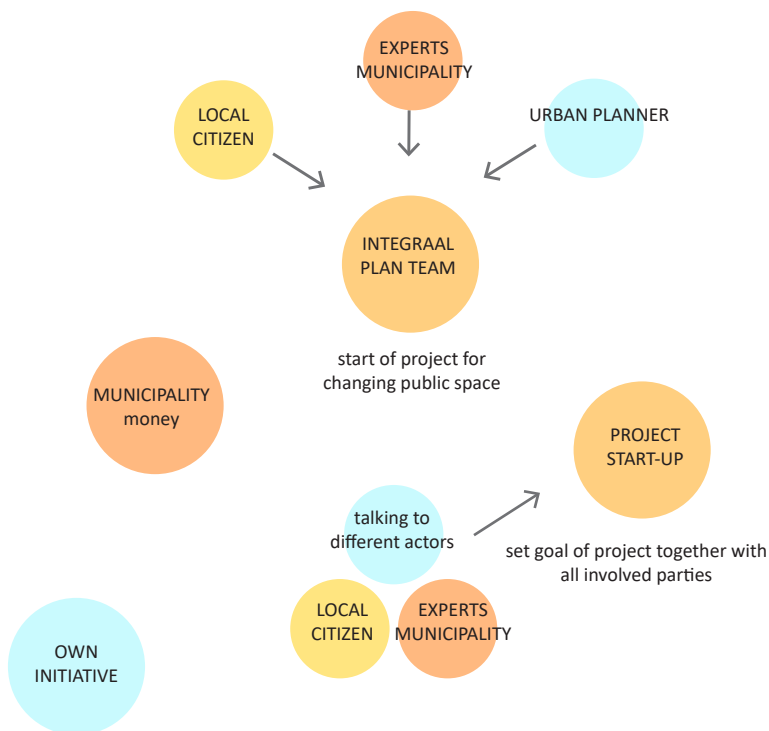
In a small group discussion, feedback is given to the different statements. This feedback is processed and turned into a spatial design. This draft design is the final outcome of the thesis. This design should be test at least ones more with local citizens and other actors to finalize the proposed design interventions.

This process shows how the proposed new process will work. It shows that

EXPERTS MUNICIPALITY

LOCAL CITIZEN

URBAN PLANNER

INTEGRAAL PLAN TEAM

start of project for changing public space

MUNICIPALITY money

PROJECT START-UP

talking to different actors

set goal of project together with all involved parties

LOCAL CITIZEN

EXPERTS MUNICIPALITY

OWN INITIATIVE

municipal reports
and policies

policies

test plan

PvE
programme
requirements

ONLINE
SURVEY

large scale
instead of
small scale

first ideas
water
ps

OPINION
PARTIES

DRAFT
DESIGN

statements
for focus group

FOCUS
GROUP

PROCESS
FEEDBACK

SEND FOR
FEEDBACK

small scale discussion

FINAL
DESIGN

DO - definitief ontwerp

test again with local
citizens

DRAFT
DESIGN

VO - voorlopig ontwerp

these steps in co-designing are well structured and that the involvement of local citizens into the beginning of the planning process can help in finding the right design solutions. The benefit of working with local citizens (bottom-up) and experts from the municipality (top-down) is that you have input from the different perspectives. Making the connection between the different actors is important for the regeneration process because the exchange of knowledge between different actors can strengthen each other. As urbanist, the various options must be weighed against each other to create the best solution. With all the main actors represented in the plan team you will have all input to make the best combination possible into a final spatial design.

Image 32 | Source: author

6.2 OUTCOME DESIGN

This chapter will describe the design proposal for the public space of Rotterdam. The previous chapter already described the design process, where the role of the urbanist is essential to make a connection between all the different actors. The process of this design is used to form a new proposal for the planning process. By linking all the previous findings, a design is formed. This design, together with the new proposed planning process, form a new urban regeneration plan for the public space of Beverwaard.

Input

WATER CHALLENGES
water adaptation, retention, and storage

MUNICIPALITY VISION
translate vision into concrete goals

BOTTOM-UP DEMANDS
adapt plans to demands of local citizens

FOUR MAIN THEMES AS INPUT FOR DESIGN
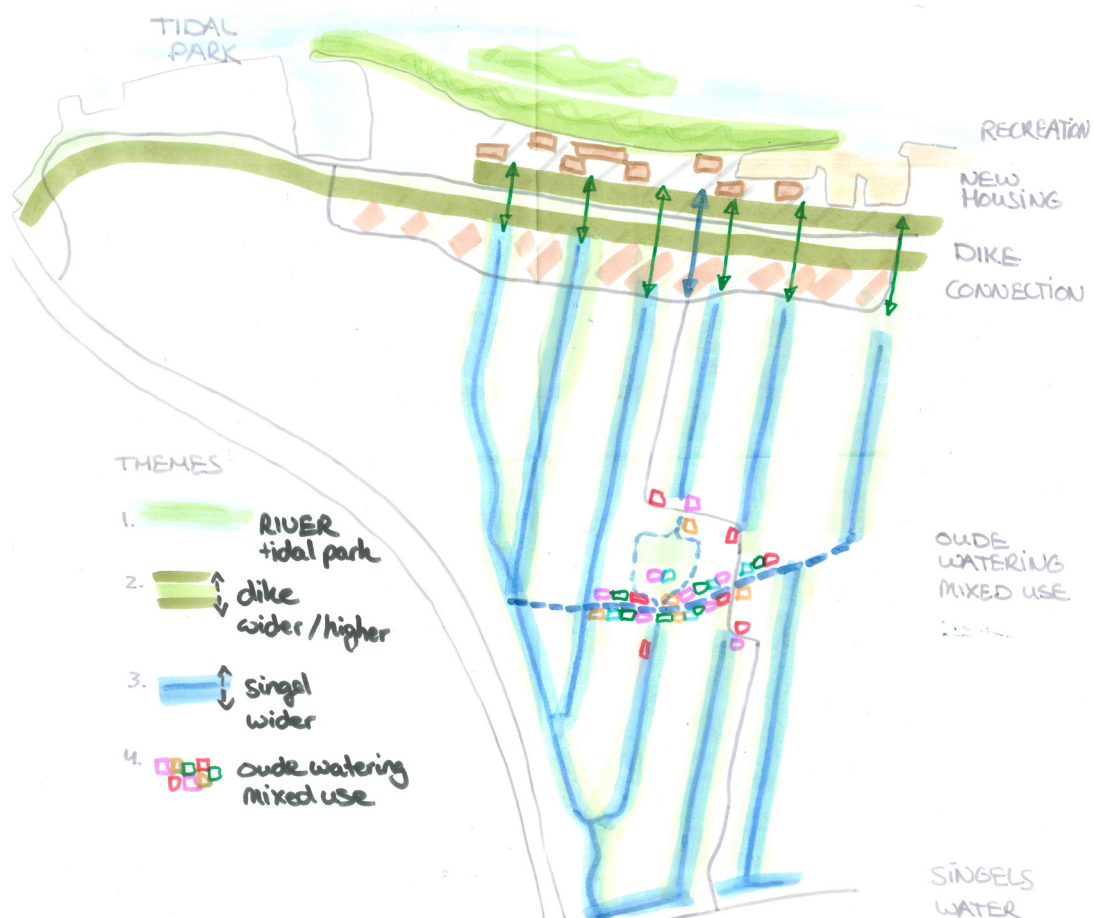
Image 33 | Source: author

INPUT FOR DESIGN

The outcome of the analyses is used as a start for the design. Combining the water vision of Rotterdam together with the physical analysis of Beverwaard, the following shared public spaces are chosen to focus on(see image 33).

1. The Oude Watering, a canal in the center of the neighborhood, where most of the functions are located.

2. The singels, water ways, defining the structure of the neighborhood.

3. The river, Nieuwe Maas, located on the north side of the neighborhood Beverwaard.

4. And the dike, which is currently a barrier between the river and the neighborhood, but should become a connection between those areas.

All these public spaces are linked to water, and will address water issues in the new interventions. One other important input is the vision of the municipality of Rotterdam. These guidelines support the focus for these public spaces connected to water to improve. Besides this, the most important input is the demands of the local inhabitants. In the previous chapters, all the input is analyzed and described. Now the design challenge is to bring all these different demands together in one plan which will improve the neighborhood. By considering all the different demands, a choice is made to focus on the themes described in the conclusions of chapter X and Y. These concepts will be further explained in this chapter and shown how they are implemented.

CONNECTION BETWEEN BEVERWAARD AND ROTTERDAM
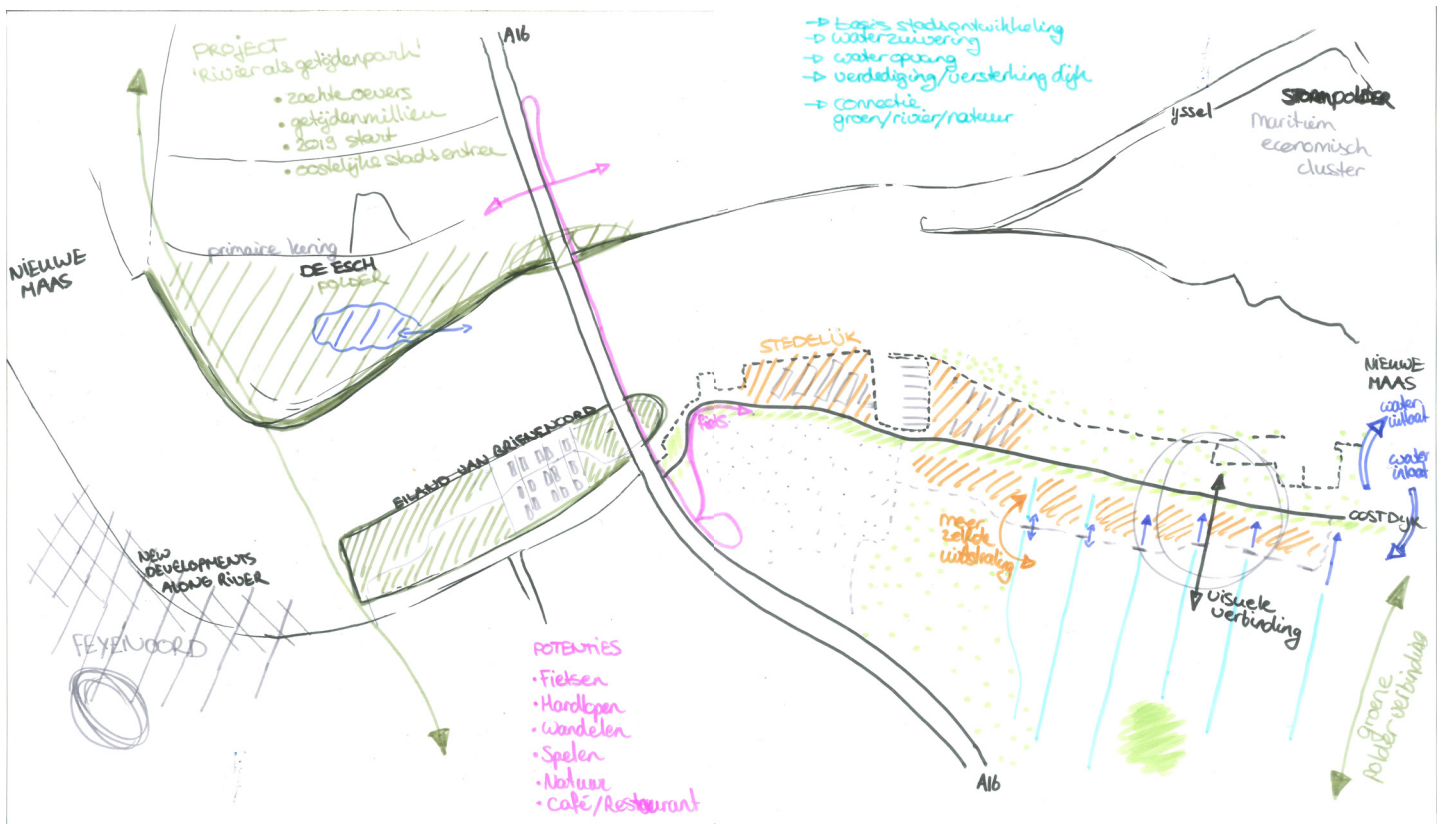
Image 34 | Source: author

CONCEPT

The starting point of the design is mostly based on the input from local inhabitants:
1. The singels need to change: more green, give room for water
2. A new recreation area along the river Maas: cycle route and pedestrian path
3. The focus to the center of Beverwaard to make it more attractive: water side lower, creating seating, more green, add special function.

This leads to two main focus areas: the industrial area along the river, and the center of the neighborhood, the Oude Watering.
Making this connection is the base for improvement of the neighborhood. The area along the river, which is currently old harbor industry, will be a new extension of the neighborhood. With this connection, the neighborhood will be connected to the green-

PROJECTS ALONG THE RIVER MAAS AND PROPOSED GREEN CORRIDORS

Wilhelminahaven

Keilehaven

Maasboulevard

Eiland van Brienenoord / Polder de Esch

Maashaven

Nassauhaven

Mallegatpark

Het Huys ten Donck
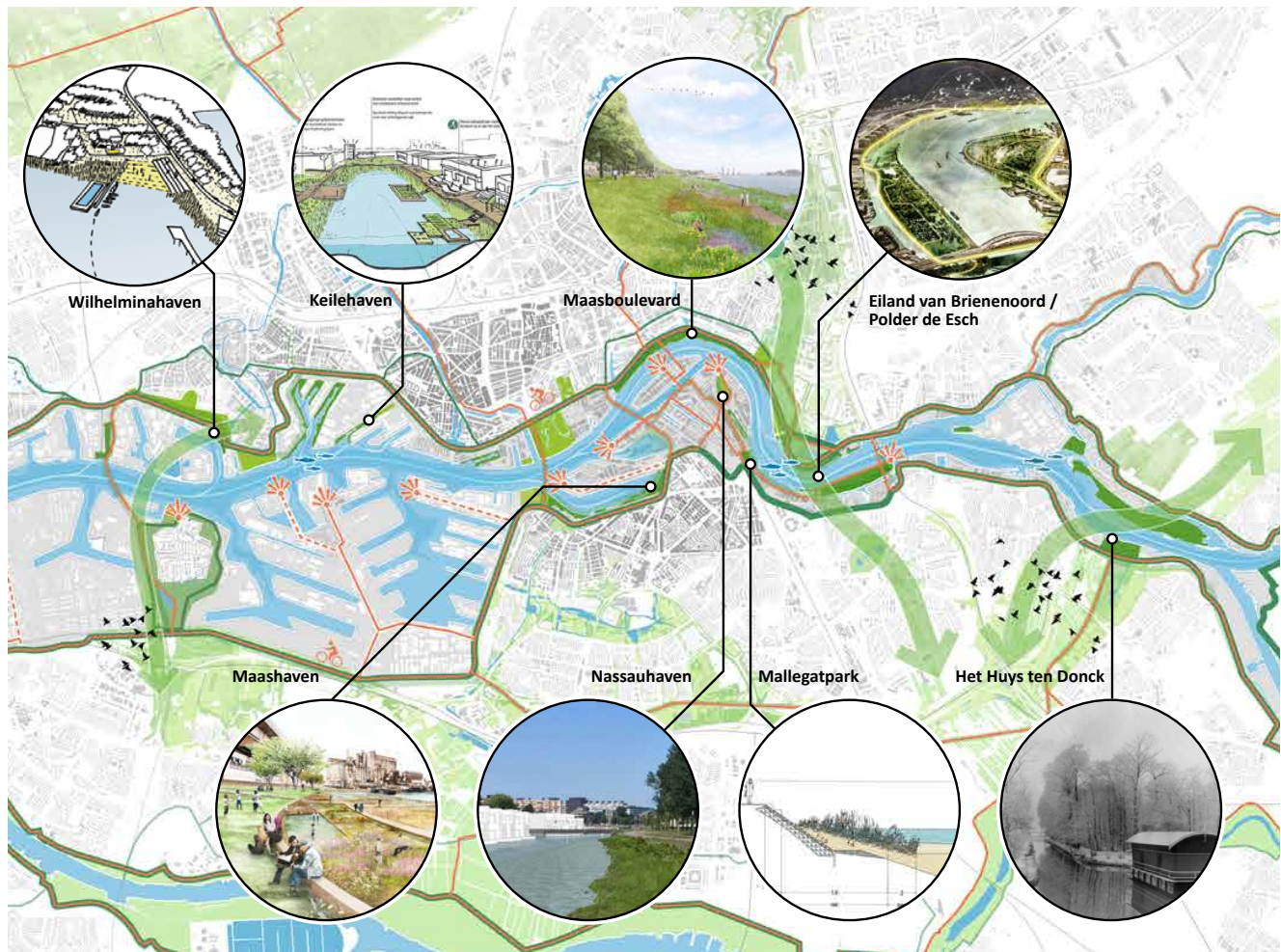
Image 35 | Source: De Urbanisten, 2016

blue network of the city. The municipality wants
to make a green tidal park network along the river,
connecting the urban areas to the river (see image 34,
35 and 36). Besides this, the new developed area will
attract new people to this part of the city.

PRINCIPLE OF NEIGHBORHOOD

OUTSIDE THE DIKE

INSIDE THE DIKE

CENTER OF BEVERWAARD
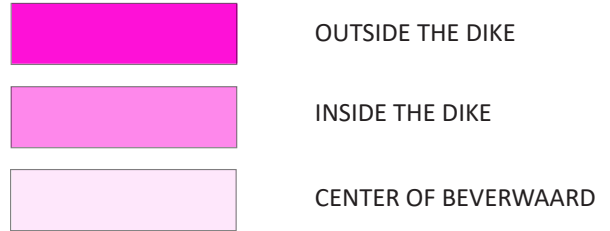
TWO FOCUS AREAS TO MAKE THE CONNECTION TO THE RIVER

river Nieuwe Maas

Brienenoord bridge

BUITENDIJKS GEBIED -
ouside the dike

CENTER OF
BEVERWAARD -
oude watering

Groot IJsselmonde
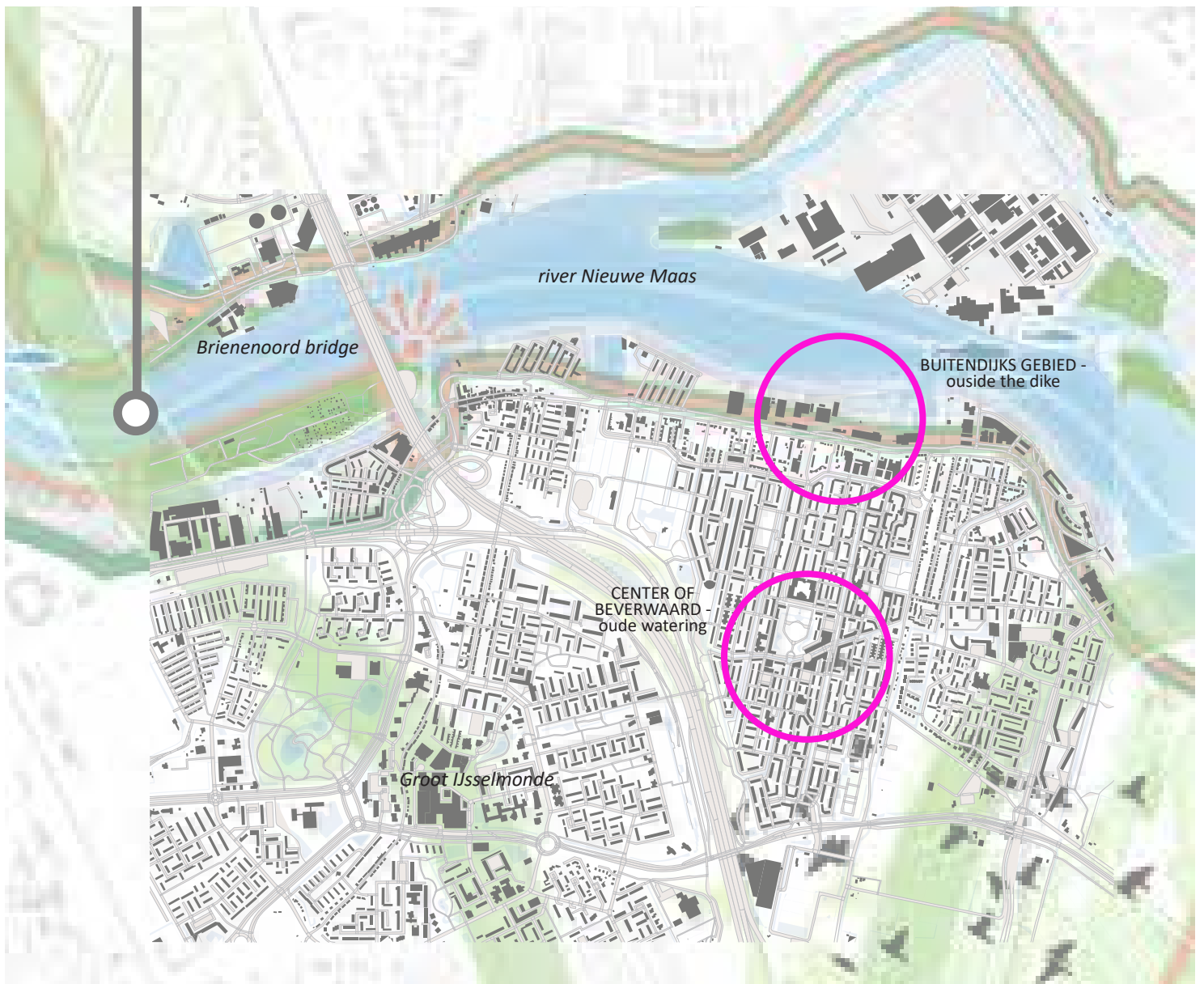
Image 36 | Source: De Urbanisten, 2016

PRINCIPLE OF NEIGHBORHOOD
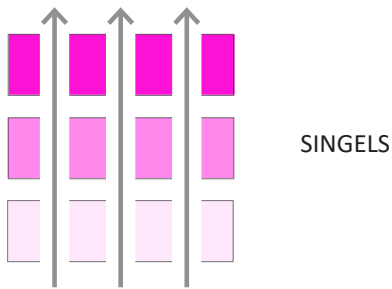
SINGELS

CONNECTING THROUGH SINGELS

By making a good connecting between these two main areas, the center of the neighborhood will attract more people from outside the neighborhood and people from the neighborhood have a new connection to the river for recreation.

The existing structure of the singels will be used for this connection, as well for the new building structure along the river. The singels will be open lines from the neighborhood towards the river.

SINGELS AS CONNECTING AREAS

river Nieuwe Maas

Brienenoord bridge

Groot IJsselmonde
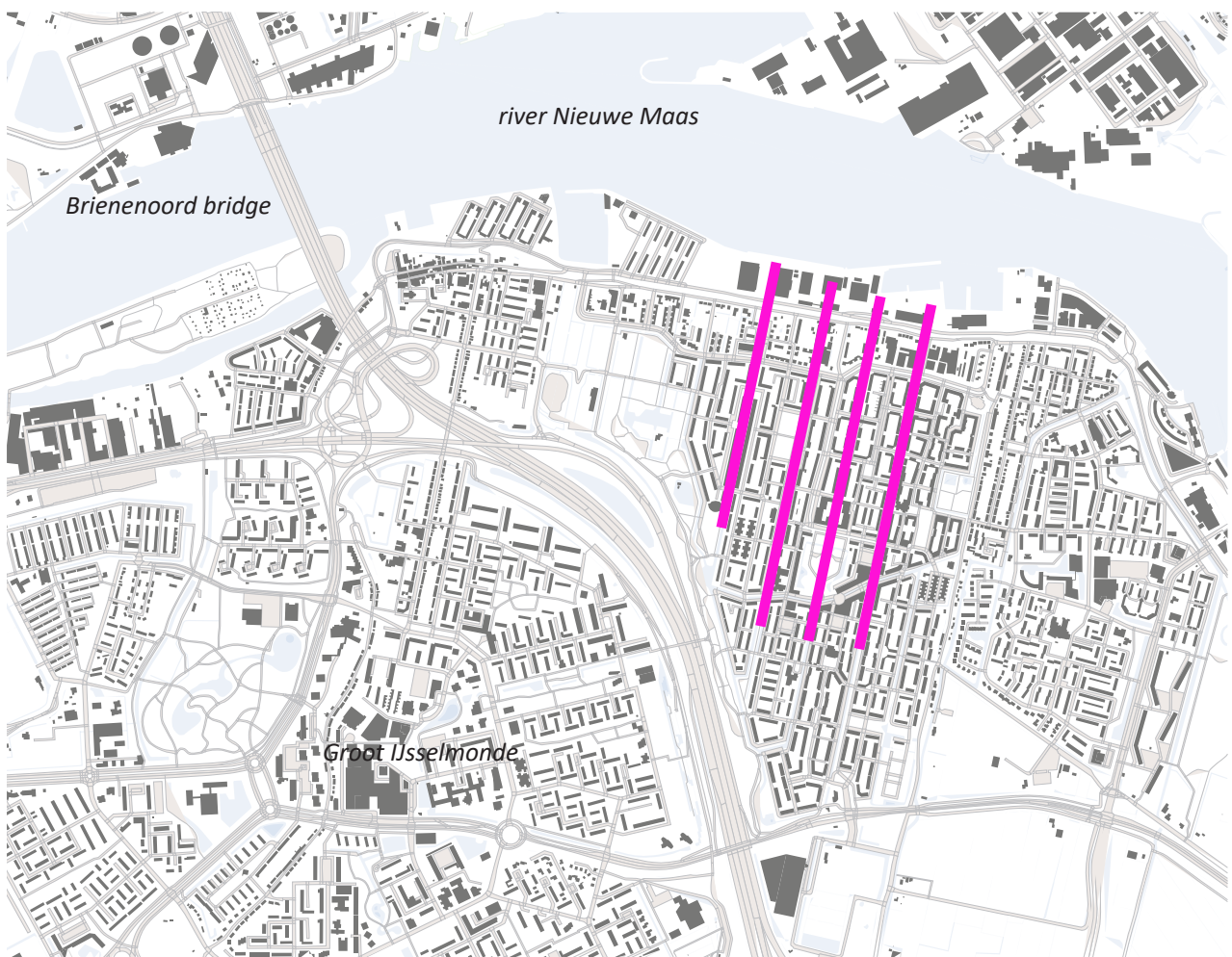
Image 37 │ Source: author

This leads to three different zones:

1. Outside dike
The current industry will be demolished to make room for new buildings and recreational spaces.

2. Mixed zone
The area in between the dike and the neighborhood border will be reorganized following the lines of Beverwaard. In this area, industry will be moved and new housing will follow the current typology (2-onder-1-kap woningen).

3. Old neighborhood
The focus will be on improving the quality of the public space in the center of the neighborhood. To attract people to the center, also the routes in the neighborhood will be redeveloped (more green and better for pedestrians and cyclists).

Every zone has his own form of typology. The old neighborhood of Beverwaard has singel family homes (terraced houses), maximum four stories high. The mixed zone has mostly single family homes: semi-detached houses. The river area will all be new housing, in the form of apartment blocks, maximum six stories high, with wide open recreational spaces in between.

THREE DIFFERENT PARTS OF THE DESIGN
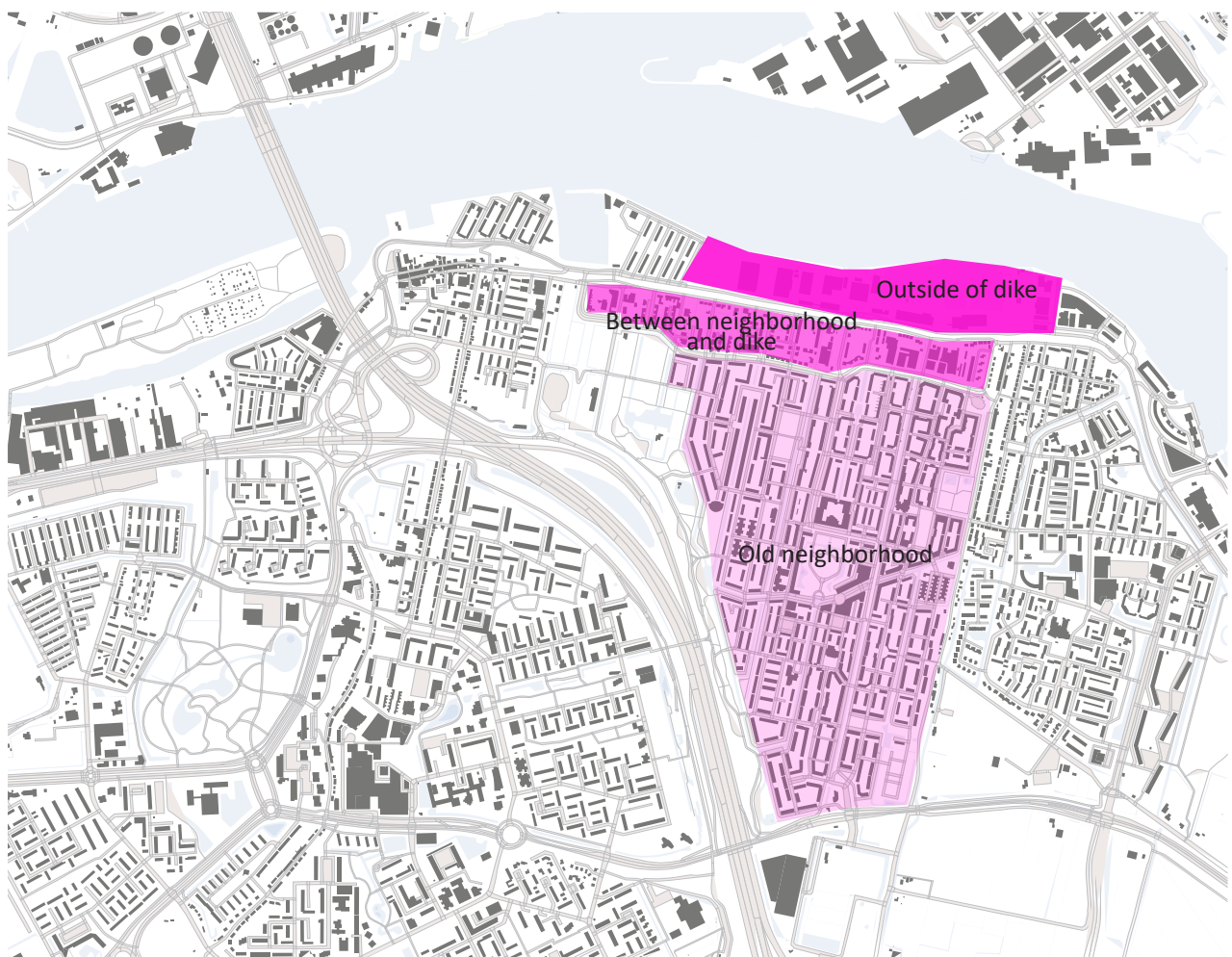
Image 38 | Source: author

CENTER OF THE NEIGHBORHOOD

Research shows that the center of the neighborhood Beverwaard needs improvement. Retail is leaving the area and there is often crime. Local citizens do not feel safe in the shopping area, but at the same time it is an important place for the neighborhood where everybody is doing their shopping.

Out of the online survey and focus group, citizens think that currently the water of the canal is dirty, there is no green and it just looks grey and unpleasant. The water has no proper function to the local citizens anymore and is described as a gray empty bin full of waste.

CHANCE
There are chances to improve this area by changing the canal sides and make the public space more attractive to visit. From physical analysis, there is a chance to connect the shopping area to the park and there is space to make the water area more attractive by giving it a better function. The main square is given already a new function by adding a play area for the children of the neighborhood. With adding more functions to the shopping area, more people will visit this area, do their shopping and stay there to interact with other neighbors.

PRINCIPLE OF NEIGHBORHOOD

OUTSIDE THE DIKE

INSIDE THE DIKE

CENTER OF BEVERWAARD

EXISTING SITUATION OF THE CENTER OF BEVERWAARD

CANAL OUDE WATERING   PARK   MAIN SQUARE   SHOPPING AREA   Image 39 | Source: author

PROPOSAL

Proposed is the new situation to focus on the canal and connection to the rest of the neighborhood.

WATER SIDE
The vision of the municipality is to transform the center of the neighborhood. By improving the water side, the whole public space in the shopping area will be improved. By lowering the water sides by adding stairs, the connection with the water will be reinforced, the water will get more space and the quality will be improved.

SQUARES
The vision of the municipality is focused to attract more people to the center of the neighborhood. One important place is the small square in the shopping center. Local citizens would like to have more functions in the center, like a market.
Towards the park, there is space to extend the public square which gives space for new functions like a market.
The canal in front of the park is wider and there is room to extend it further and connect it to a water square.

PROPOSED SITUATION FOR THE CENTER OF BEVERWAARD

IMPUT FROM FOCUS GROUP

WATERPLEIN   KADE   ZITPLEKKEN
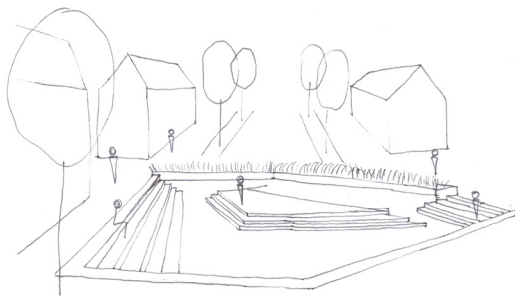
WATER SQUARE
Place for children to play
and local citizens to gather
together
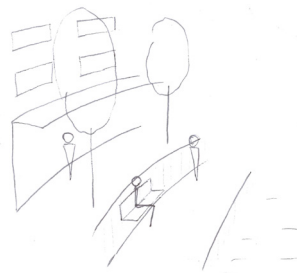
LOWER WATER SIDE
Make a connection with the
water
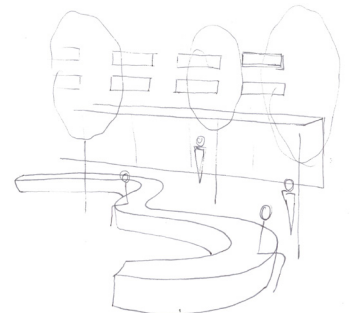
SEATING
Places to sit down around
the shopping area

WATER SIDE

The new water side will focus on a combination of aspects the local citizens described as important, fits within the vision of the municipality and the water plans. These aspects are seating, more green and lowering the water side.

In the shopping area of the canal Oude Watering, there will be more focus towards the water. Currently the water is not seen as a qualitative space. By improving the water side the whole space will have a better appearance.

The canal will be wider and there will be stairs towards the water to make a better visual and physical connection with the water.
In this case, there will be more storage space for the water, with even possibilities to overflow parts of the lower stairs by heavy rainfall.

To attract people to enjoy the water side and stay within the shopping area to interact with other citizens, the stairs will function as new seating. The seating will be located on the north side of the canal, where most of the sunlight is. Mixed with green in

NEW WATER SIDE OF THE OUDE WATERING
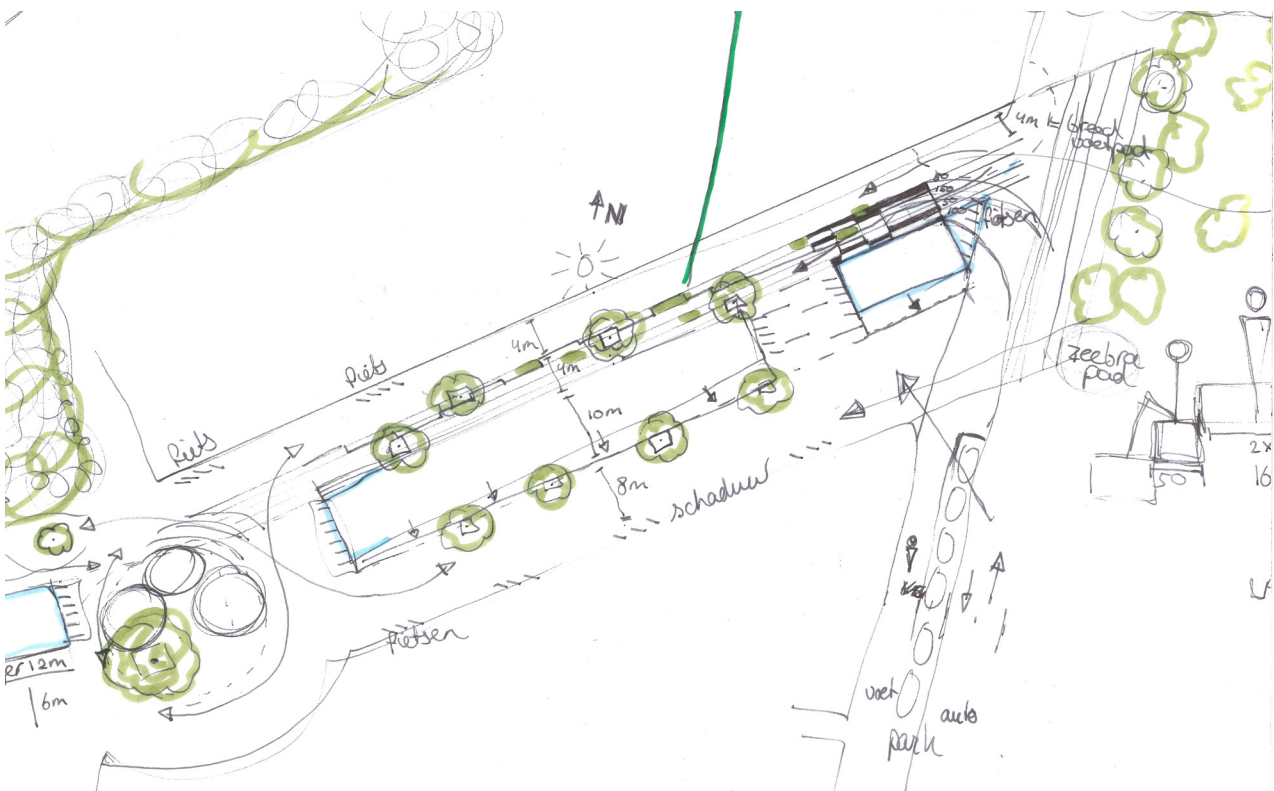
Image 41 | Source: author

between the seating and as part of the stairs, the shopping center of Beverwaard will have a green look with comfortable seating. This green will be high grasses, in line with the natural water plants, in between the small trees. These trees will be small green trees to make the area an intimate space.

TOP VIEW
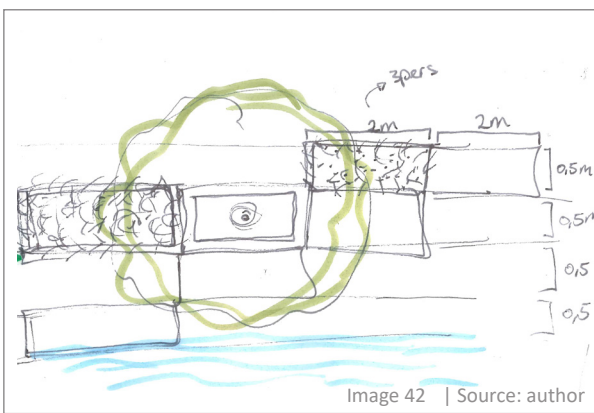
Image 42 | Source: author

SIDE VIEW
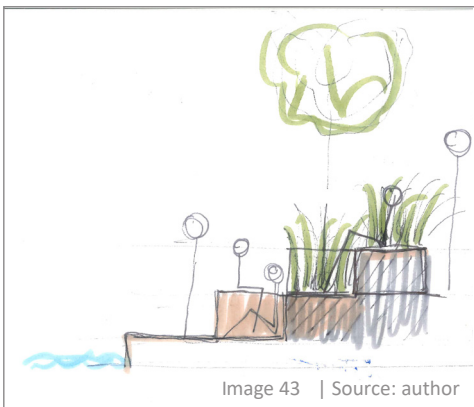
Image 43 | Source: author

FRONT VIEW
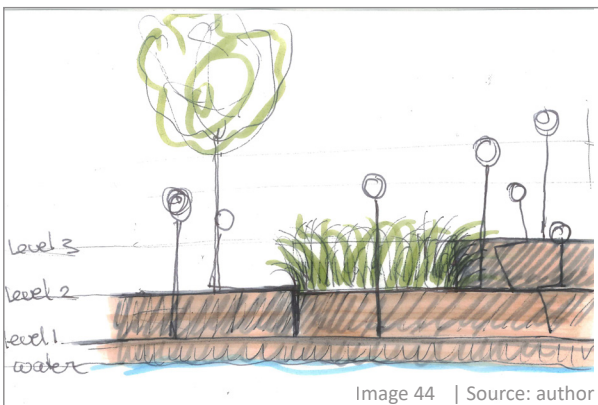
Image 44 | Source: author

GREEN

Grass - high green grasses close together in parts of the stairs.

Trees - small maple trees with colourful leaves

STAIRS

Seating - wide stairs towards te water to sit

Lower water side - stairs towards the water
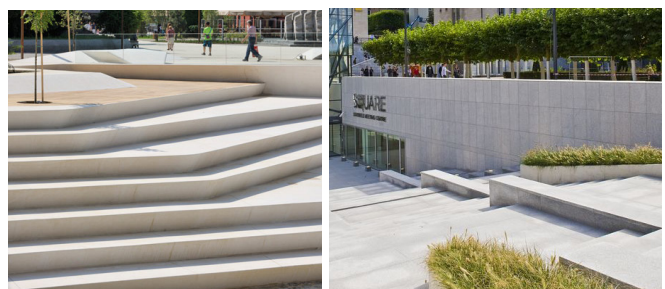
SQUARES

Currently a new play area for children is built at the main square in the shopping area (in front of the Verhage). This is a good start to create more activity around the shopping area. Since local citizens would like to have more functions in the center, there is a need for new spaces. Making an open connection to the park gives new space to extend the current square and add a new square. This square will connect the park with the shopping area and can fill in the function of a market square.

In this area, connected to the main square, the canal is wider and is connected to one of the singels of Beverwaard. Here is room to extend the water and give it a function by connecting it to a water square. This will give a new attractive function to the neighborhood for local citizens to gather and play and at the same time this water square will be a space for extra water storage.

NEW SQUARES IN THE CENTER OF BEVERWAARD: WATER SQUARE, MARKET SQUARE AND PLAY SQUARE

Image 51 | Source: author

PRINCIPLE SECTIONS WATER SQUARE

Image 52 | Source: author

Image 53 | Source: author
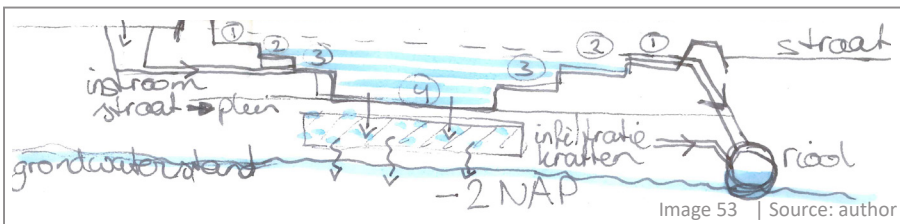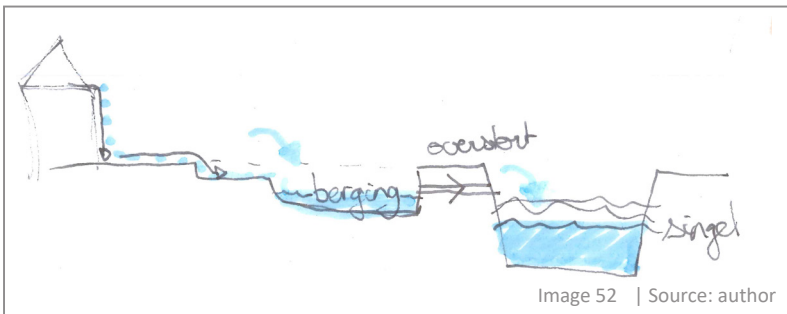
WATER SQUARE

MARKET SQUARE
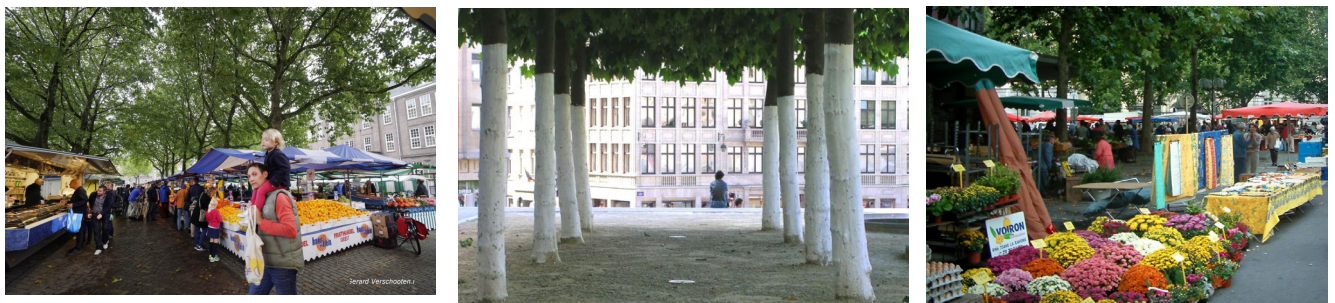
SINGELS

The municipality of Rotterdam explains in the vision
for the public space of Beverwaard that the singels
need improvement. From the online survey and the
focus group, local citizens describe the singels as dirty,
full of trash and they smell. Instead of nice green
recreational space, the local citizens do not see these
places as a nice area to stay and participate. Some
residents walk their dog, but the singels do not have
any specific function.

CHANCE

Since the singels form the basis of this neighborhood,
these public places can play an important role in
improving the identity of the neighborhood. The
singels are unique which can be the strength of the
neighborhood. By expanding the unique character of
each single, it can help the neighborhood to get its
own positive identity back. Citizens explained that
there is a need for more recreational space. If the
singels will be improved by creating a green natural
atmosphere and clean water, people will use the
space more often and can actually enjoy it.
Described by the vision of the municipality is that
the singels are an opportunity to live in a green
environment and that the housing along the singels
have more qualities which can be made stronger.

PRINCIPLE OF NEIGHBORHOOD

OUTSIDE THE DIKE

SINGELS

CENTER OF BEVERWAARD
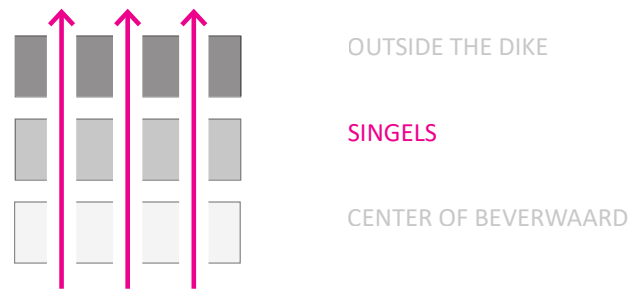
EXISTING SITUATION OF THE SINGELS OF BEVERWAARD

Image 60 | Source: author

MOLECATENSINGEL   SCHINNEBAAN   RHIJNAUWENSINGEL

Since the singels are long canals over the full length of the neighborhood, improving these public spaces will have an impact on the whole neighborhood. The singels also have physical space for new changes. Proposed is to strength the character of the singels and focus on their own identity, instead of make them all similar. The Molecatensingel is a singel with a lot of green and has a more natural character. The Rhijnauwensingel is wider with a more urban character. The proposal is to use both singels to create new walking and cycling routes to make new connections between the center of the neighborhood and the river. This connections will lead more people to the center of the neighborhood so the local economy will improve. It will also make it easier for local citizens of Beverwaard to go to the river side.

PROPOSED SITUATION

Image 61 | Source: author

IMPUT FROM FOCUS GROUP

MEER GROEN

WATER RUIMTE GEVEN
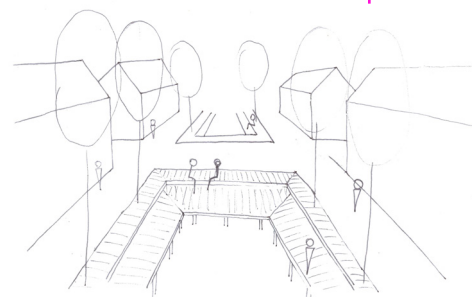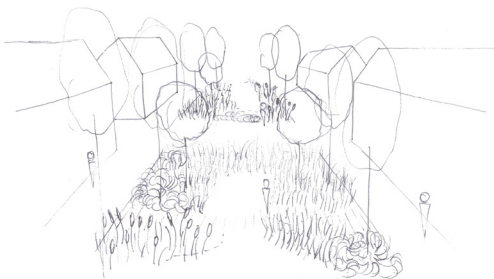
MORE GREEN
A recreational walking route
through the neighborhood

SPACE FOR WATER
A cycling path through the
neighborhood and make
room for water

MOLECATENSINGEL

The Molecatensingel already has more natural
aspects then the other singels of the neighborhood.
Using this quality, more mixed plants will be add to
make this area more natural and green. New plants
like high grasses in different colours and trees who
are green al yearlong will make the single a lively and
green environment. At some locations of this singel,
there are two smaller singels next to each other
instead of one wider singel. Here the walking path is
in the middle of the two singels.

SECTION

Image 63 | Source: author

DETAIL

Image 64 | Source: author
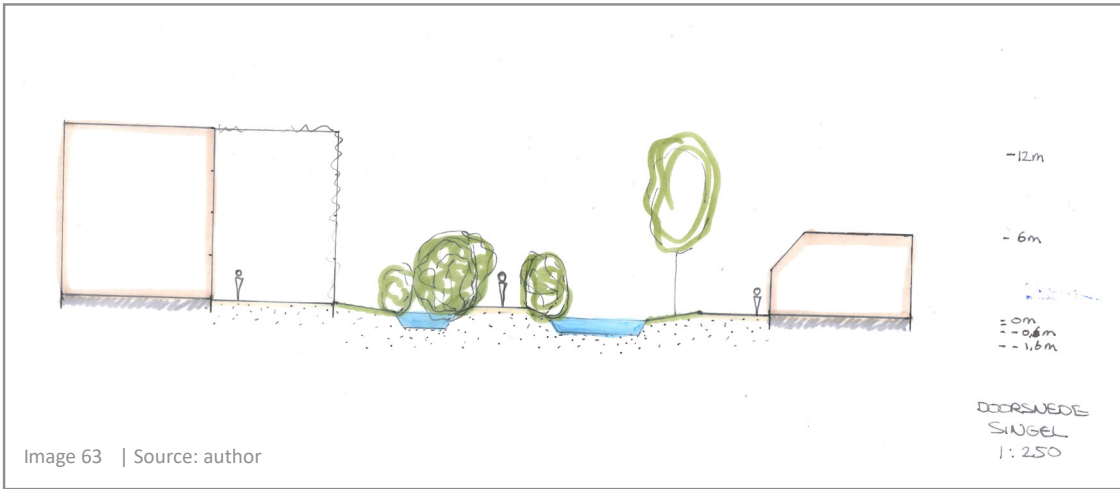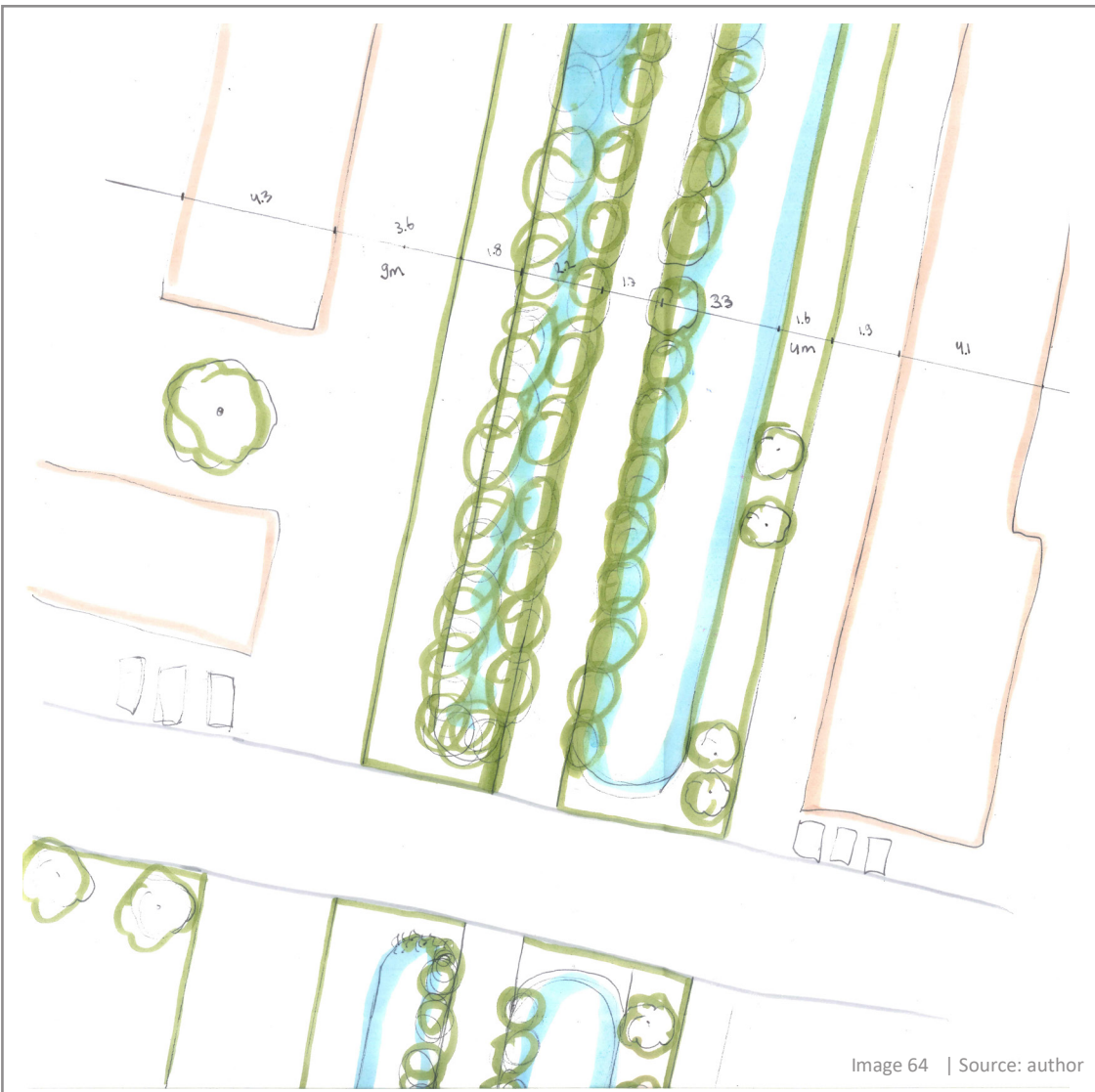
RHIJNAUWENSINGEL

The Rhijnauwensingel has enough space to expand
the water. On one side, the singel will be made wider.
Here the small grass strip which is only used to walk
the dog will be removed to make room for the water.
The trees will stay within the urban character of the
wide pedestrian path. On the other side of the singel,
half of the grass will be removed as well to make
room for a new wide cycle path over the full length
of the singel. This cycle path along the water will be
a nice and fast way to move from the center of the
neighborhood to the river area by bike. By adding
a fountain, the focus on water atmosphere will be
strengthened.
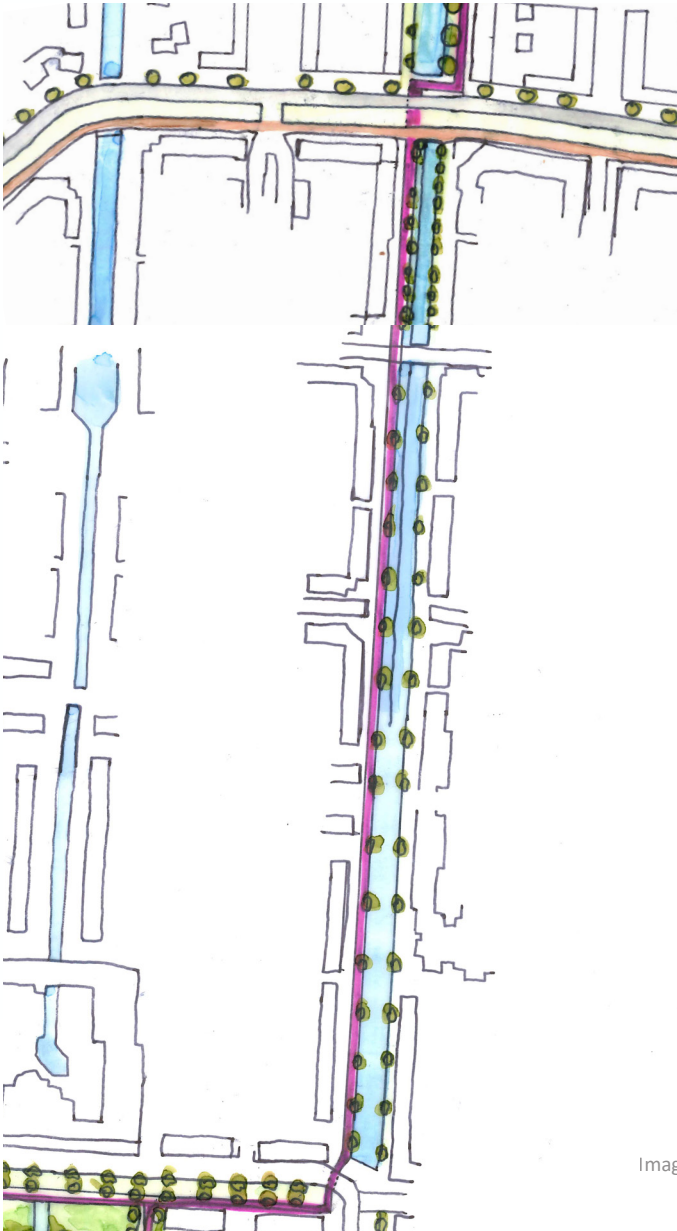
Image 65 | Source: author

SECTION
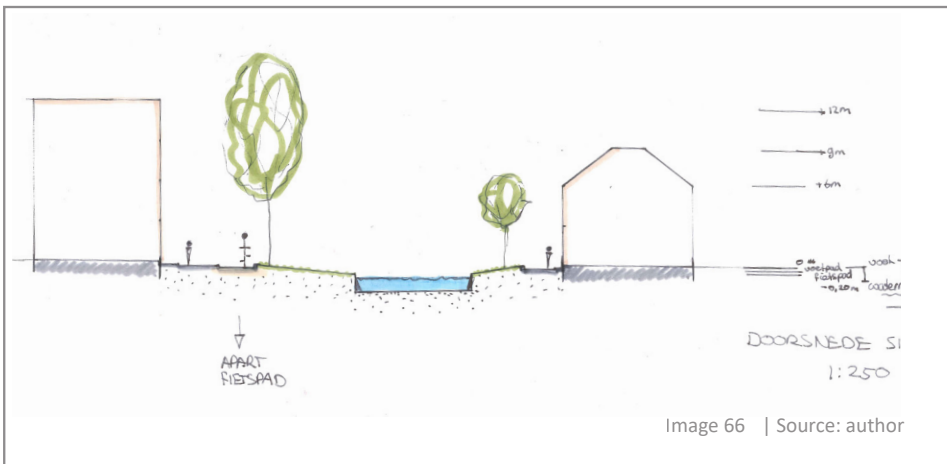
Image 66 | Source: author

DETAIL

Image 67 | Source: author

RIVER AREA

The vision for Rotterdam is to focus to the river Nieuwe Maas and connect the city to the river. Along the whole river there are multiple projects focusing on involving the river in a natural way in the urban structure. Beverwaard is close located to the river. But currently there is an industrial area which blocks the visible and physical connection from the neighborhood to the river. These huge buildings are old and in decay. The dike 'Oostdijk' is also a barrier between the neighborhood and the river area and local citizens describe the dike as a dangerous road to go for pedestrians and cyclists. The unorganized area before the dike is a mix between old housing, new housing and industry. This structure does not fit with the lines of the singels of Beverwaard and is in this way also blocking the connection to the river.

PRINCIPLE OF NEIGHBORHOOD

OUTSIDE THE DIKE

INSIDE THE DIKE

CENTER OF BEVERWAARD

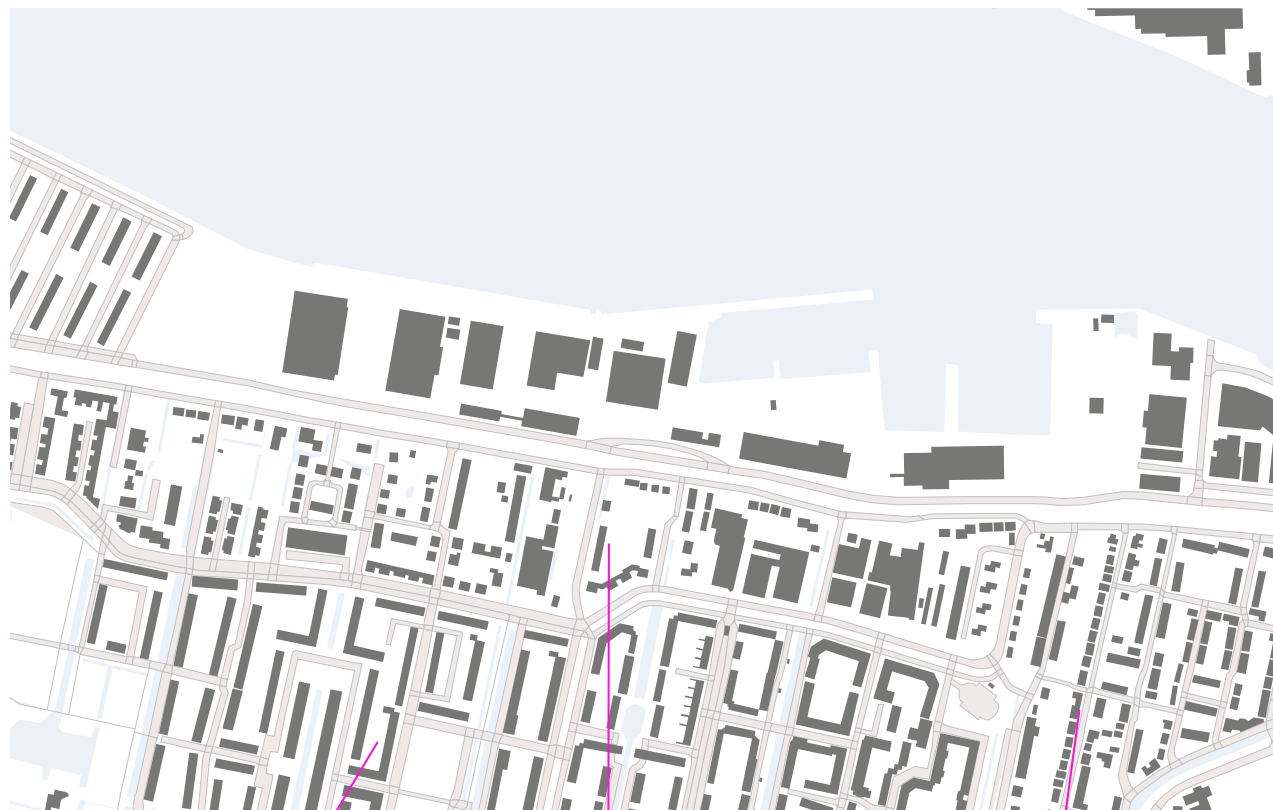EXISTING SITUATION RIVER AREA

Image 68 | Source: author

MOLECATENSINGEL   SCHINNEBAAN   RHIJNAUWENSINGEL

CHANCES

To make a good connection from Beverwaard to the river, the area between Beverwaard and the dike must be reorganized. There are chances to fill up the empty spaces between the new housing and structure the area to continue the open lines (extend the singels) from Beverwaard until the dike.
There are two main roads in between the neighborhood and the river. Changing the infrastructure and combining these two roads into one will improve the connectivity for pedestrians and cyclists from Beverwaard to the river. These cycle and pedestrian connections will ensure easy movement of people between the areas which will stimulate local activity and local economy of Beverwaard.
Demolishing the current old industry buildings along the river will give the chance to develop a new beautiful area including recreation and new housing. Placing these new buildings in line with the structure of Beverwaard, the river area can be a new extension of the old neighborhood which will upgrade the neighborhood as a whole.
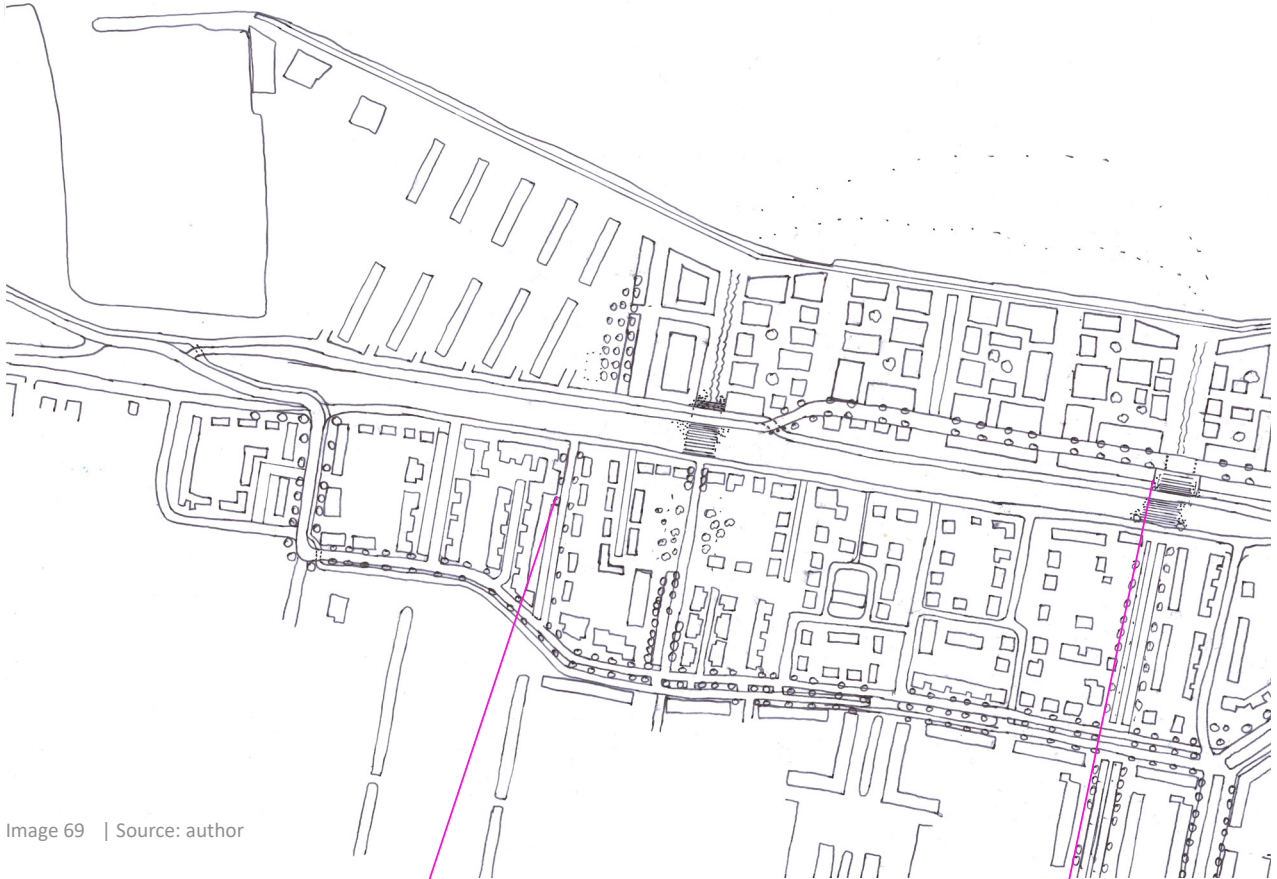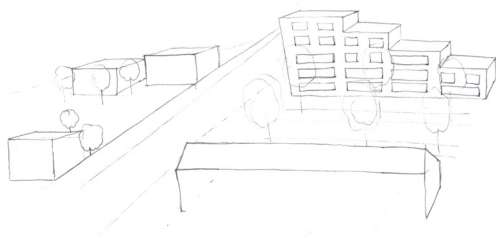
PROPOSED SITUATION FOR THE WEST RIVER AREA

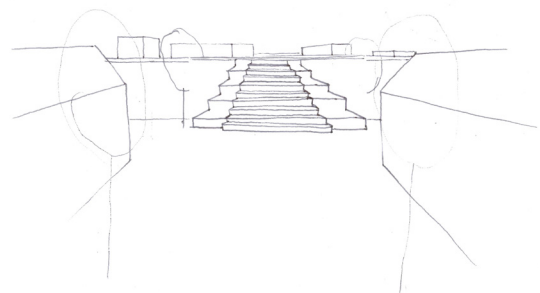Image 69 | Source: author

IMPUT FROM FOCUS GROUP

NIEUWE HOGE WONINGEN

TRAP

NEW BUILDINGS
Show visual change from
old neighborhood to higher
buildings along the dike

STAIRS
Large outstanding stairs
connecting both sides of the
dike

PROPOSAL

Proposed is to develop a new area focusing on the following themes:

1. Recreation

Since there is a need for recreation according the local inhabitants of Beverwaard, this will be a base for the new area along the river. The current singels of Beverwaard will be extend to the dike, and continue outside the dike to the river. The focus for these waterways to create a natural environment including green.

2. New housing

In between the waterways, new apartment blocks will be developed within a green and blue environment. The housing will contribute to housing stock of the city of Rotterdam and will attract people.

3. Change of infrastructure

To improve the connection to the new developed area and the old neighborhood a changed infrastructure network is proposed.
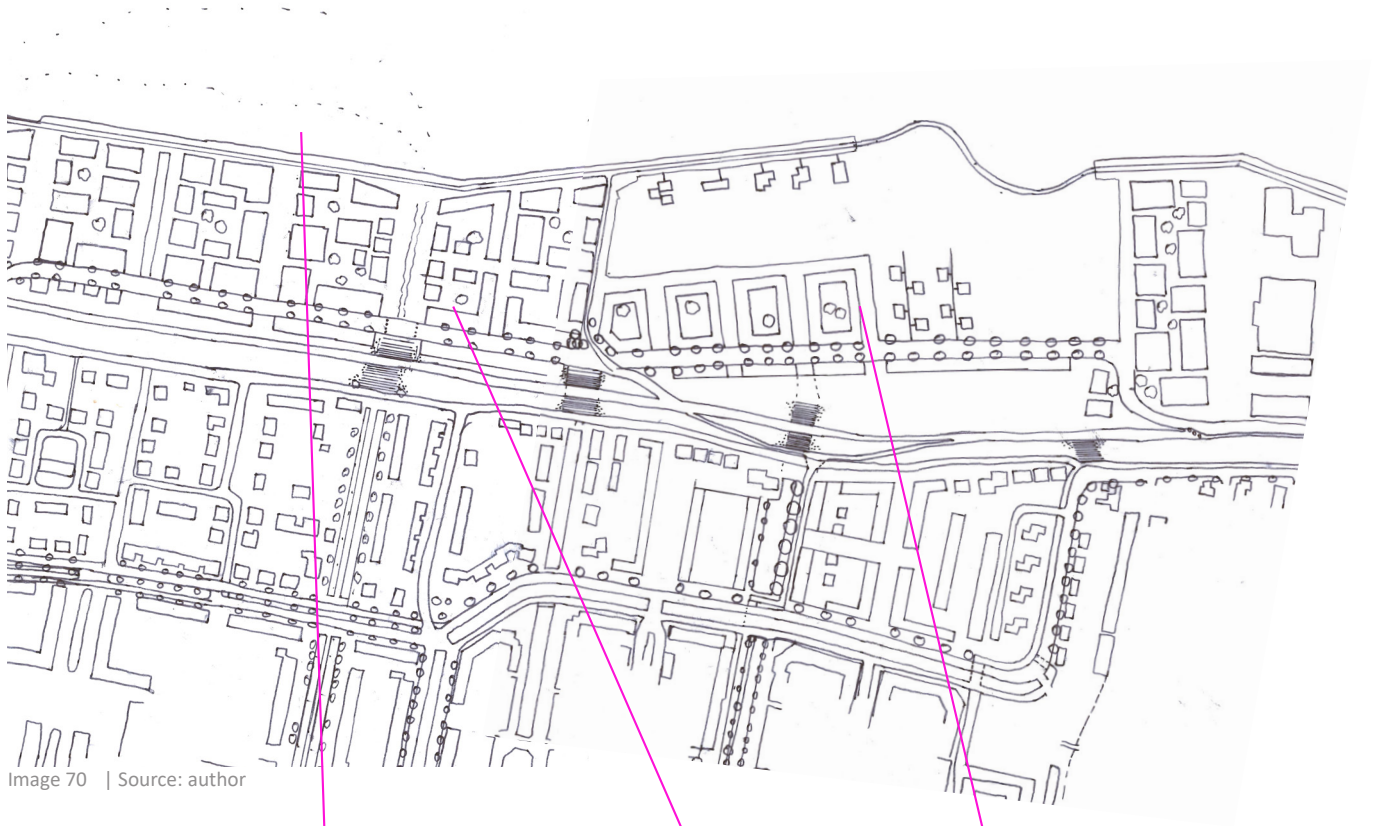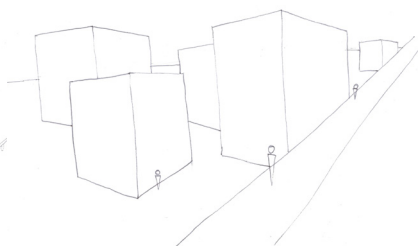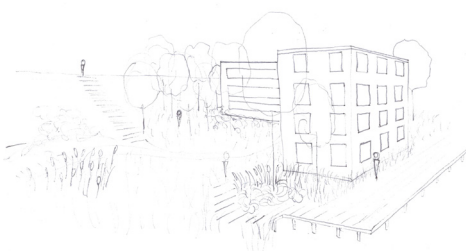
PROPOSED SITUATION FOR THE EAST RIVER AREA

Image 70 | Source: author

IMPUT FROM FOCUS GROUP

RECREATIE AAN RIVIER   SLOOP VERVALLEN INDUSTRIE   WONEN AAN DE RIVIER

RECREATION
A new recreational area
along the river to sport,
walk or swim

DEMOLISH INDUSTRY
Demolish old industry and
vacant buildings to make
room for new initiatives

NEW HOUSING
New apartment blocks as
an extension of the old
neighborhood

RECREATION

1. Tidal park

The most important thing that is missing in Beverwaard according its local residents, is a recreational area. There is a need for a place where the residents of Beverwaard can enjoy nature and long walks. The area along the river gives a perfect opportunity to realize this. As the vision of the municipality is to connect the city to the river by creating new tidal parks along the riverside, Beverwaard will not stay behind. Looking at the water vision, mixing urban regeneration with water management is one of the goals. The new tidal park within the new urban area will make the river part of the public space.

2. Water boulevard

The extension of the singels in the new area along the river will not literally be connected to the old singels. These new singels, called water boulevards, will have a link to the river. The principle of the water boulevard is to create a green corridor with water ponds. These corridors will functions as a wetland with extra space for water storage and plants to improve the water quality. These green blue corridors will be connected visually to the singels behind the dike, and a green walking route along Molecatensingel will connect Beverwaard to the recreational area.

3. Green continues between the buildings

In between the water boulevards a green park will be developed in between the building blocks. The whole area with new housing will have the atmosphere of green recreational area with small, green courtyards, bigger green corridors and the water areas.

AND GREEN CORRIDORS

Image 71 | Source: author

INFRASTRUCTURE

1. Main road new area
The new area along the river will be accessible by car from two sides, one on the east side and one on the west side. Because the focus for the area will be on the accessibility of pedestrians and cyclist, there will only be one road accessible for cars, parallel to the dike. This road will be a so called cycle-road, where cyclists always have the priority and cars have to drive slowly.
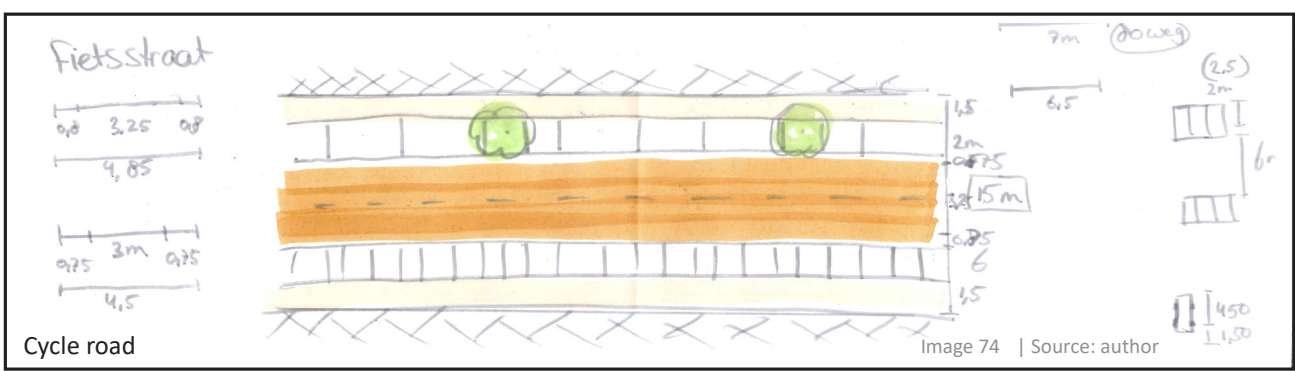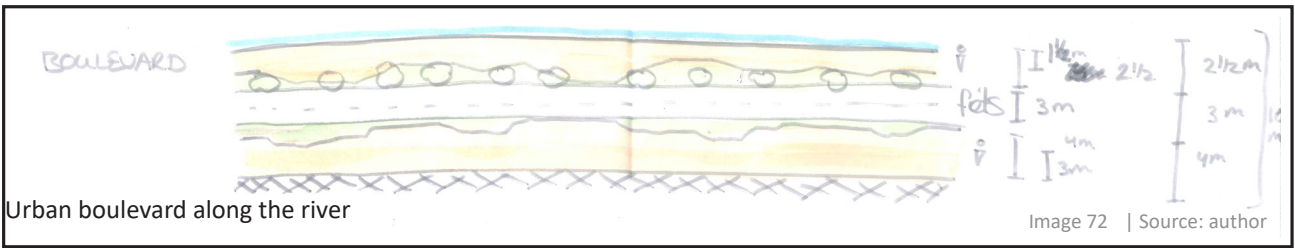
2. Focus pedestrians
Besides the cycle-road, the area is only accessible for pedestrians and cyclists. Movable bollards will stop cars from accessing the area. But in case of emergency, these bollards can be moved. These same bollards will separate the main road in two parts. This makes the both access roads from the east and the west dead ended roads.

2. Urban boulevard.
Next to the natural water side of the tidal park will be a city boulevard. This wide boulevard along the river will be a long walking route for runners or citizens who enjoy watching the boats sailing by while sitting on a bench.

Urban boulevard along the river

Image 72 | Source: author

Water boulevard

Image 73 | Source: author

Cycle road

Image 74 | Source: author

HOUSING

1. Apartment blocks including parking

Along the water and along the cycle-road, high apartment blocks will have an urban character. More towards center of the river area, the apartment blocks will be smaller to create small green courtyards for every building. The buildings will variate in size and height.
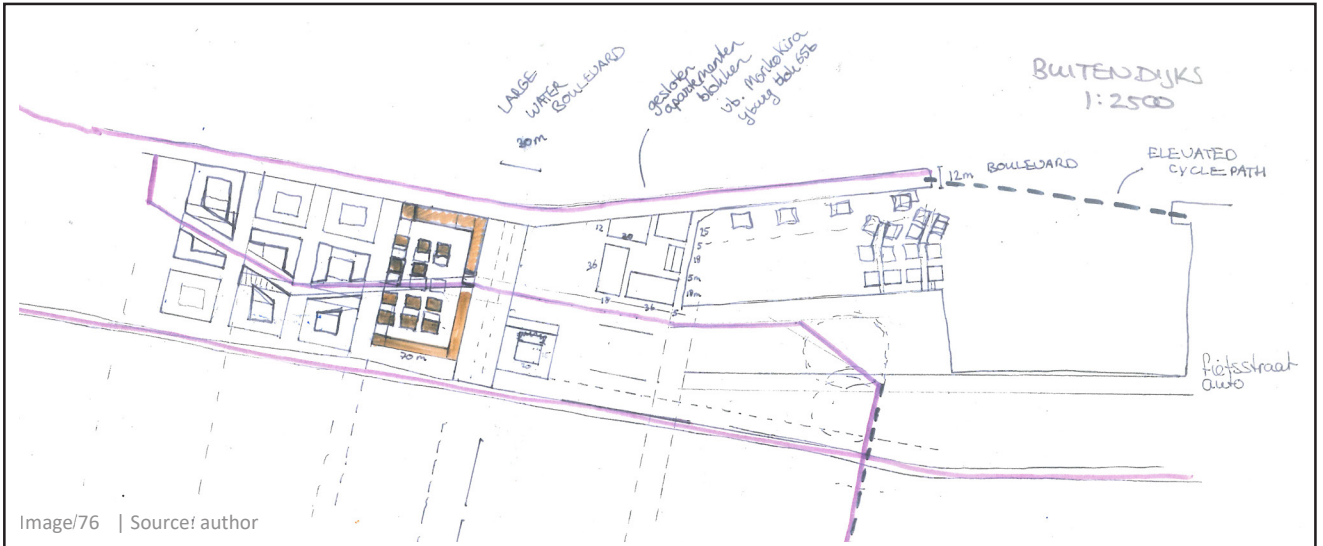
2. Floating houses

Unique floating houses will be built in the harbor area. Here people can have the chance to build their own house without certain restrictions and can have a boat next to their homes. These floating houses will give a unique character to the area.

PROPOSAL NEW ROUTE FOR CAR TRAFFIC

Image 75 | Source: author

SKETCHES FOR THE NEW CYCLE ROUTE CONNECTION: CYCLE PATH THROUGH NEW URBAN AREA

Image/76 | Source: author

SKETCHES FOR THE NEW CYCLE ROUTE CONNECTION: CYCLE BRIDE OVER DIKE

Image 77 | Source: author

INFRASTRUCTURE

PROPOSED SITUATION: HOUSING AND CYCLE ROUTES

1. Main road to Beverwaard
Because of the new proposed connection between
the center of Beverwaard and the new area along the
river, the barriers need to be broken.
This is why one of the main roads on the north side
of Beverwaard will be closed for car traffic. The other
main road will be turned into a city boulevard, a road
with trees on both side and a separate cycle path.

2. Cycle path – bridge over water plus connection
over dike
As said before, cycling and walking will be promoted
in the new plan for Beverwaard. The proposed new
cycle path along the Rhijnauwensingel will continue
over the dike, through the new river area and
connected to the new boulevard along the river. Here
a cycle route will follow the river and connect the new
area to the surrounded neighborhoods, on the west
side to the Brienenoord bridge and on the east side
to Bolnes. In the small harbor, there will be a special
cycle and pedestrian bridge over the water.

Image 78 | Source: author

CONCLUSION

All the different proposed interventions will lead to a final proposal as a start to develop the public space of Beverwaard.

SCHEME
This scheme on the right shows the relation between the proposed interventions and the analyzed findings. Each project will address at least one of the tree main inputs: the water issues, the vision of the municipality of Rotterdam and the demands of the local citizens of Beverwaard.

This lead into a final masterplan where all small design interventions in public space will upgrade the neighborhood as a whole. This design proposal is a start for further development.
Here water management and urban regeneration come together with the input from local citizens. Bringing these three main actors together result into a final proposal for an urban regeneration plan for the public space of Beverwaard.

PRINCIPLE OF NEIGHBORHOOD
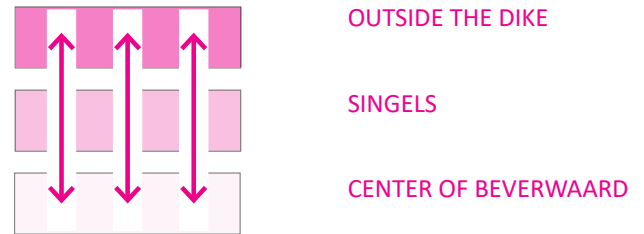
OUTSIDE THE DIKE

SINGELS

CENTER OF BEVERWAARD

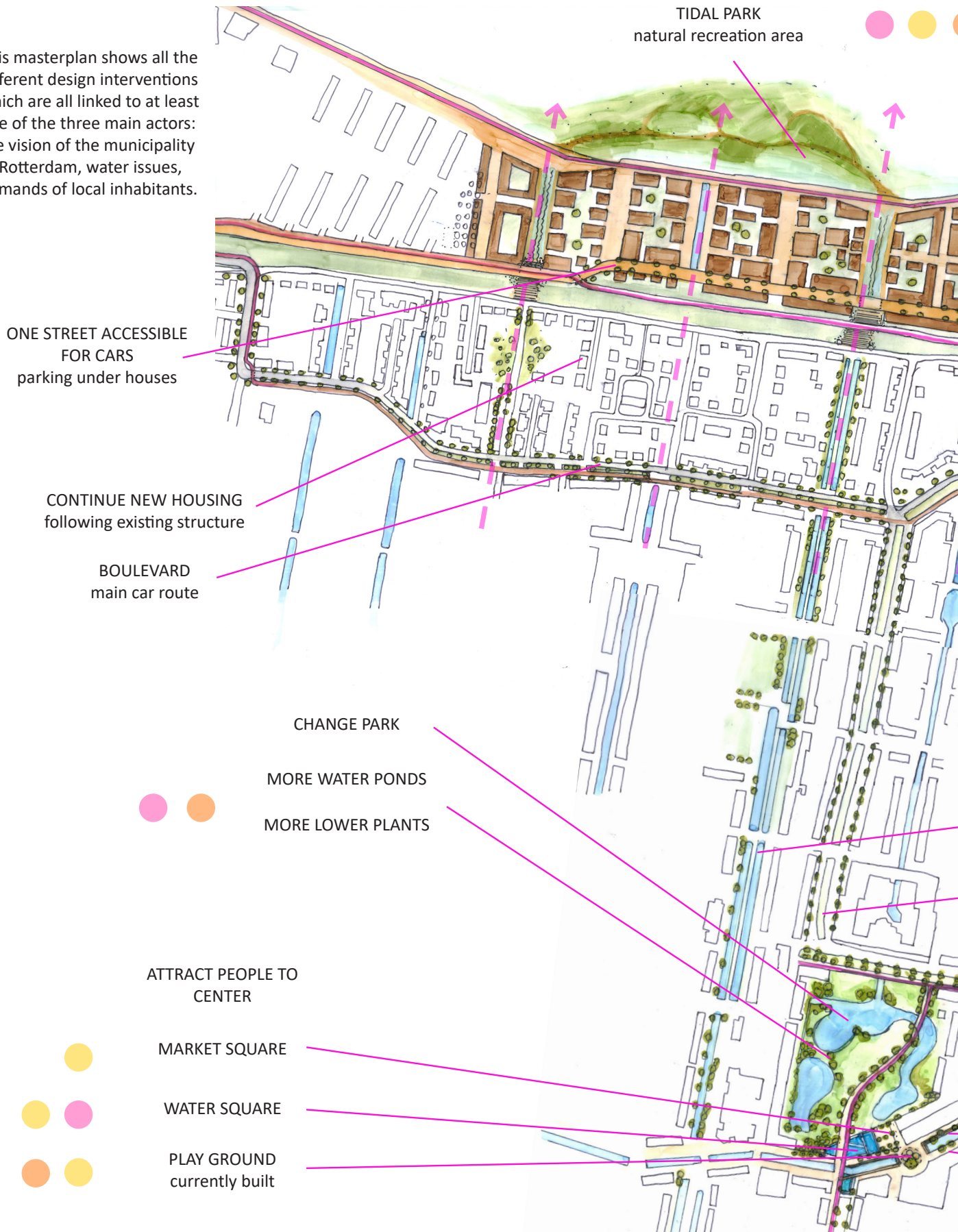| THREE MAIN ACTORS	DESIGN INTERVENTIONS	OUTCOME
WATER CHALLENGES water adaptation, retention, and storage	Water square	Water storage
	Make canal Oude Watering wider	Water storage
	More water ponds in the park	Water storage
	More green in the shopping area	Water retention
	More green along the Molecatensingel	Water retention
	Making the Rhijnauwensingel wider	Water storage
	Extend the singels in the area before the dike	Water storage
	Realizing water boulevards in the river area	Water storage Water retention
	Tidal park in the river	Give water space
BOTTOM-UP DEMANDS adapt plans to demands of local citizens	Seating in shopping area	Participation
	Market square	Attractive
	Water square	Attractive
	Play ground	Attractive
	Cycle path	Connectivity
	Pedestrian path	Connectivity
	Cycle route along river	Connectivity and recreation
	Tidal park	Recreation
MUNICIPALITY VISION translate vision into concrete goals	New housing	Housing vision
	Cycle path along singel	Connectivity
	Pedestrian path along singel	Connectivity
	Seatings shopping area	Attractive
	More green in park and shopping area	Attractive
	Tidal park	Sustainability

MASTER PLAN PUBLIC SPACE BEVERWAARD

This masterplan shows all the different design interventions which are all linked to at least one of the three main actors: the vision of the municipality of Rotterdam, water issues, demands of local inhabitants.

TIDAL PARK
natural recreation area

ONE STREET ACCESSIBLE FOR CARS
parking under houses

CONTINUE NEW HOUSING
following existing structure

BOULEVARD
main car route

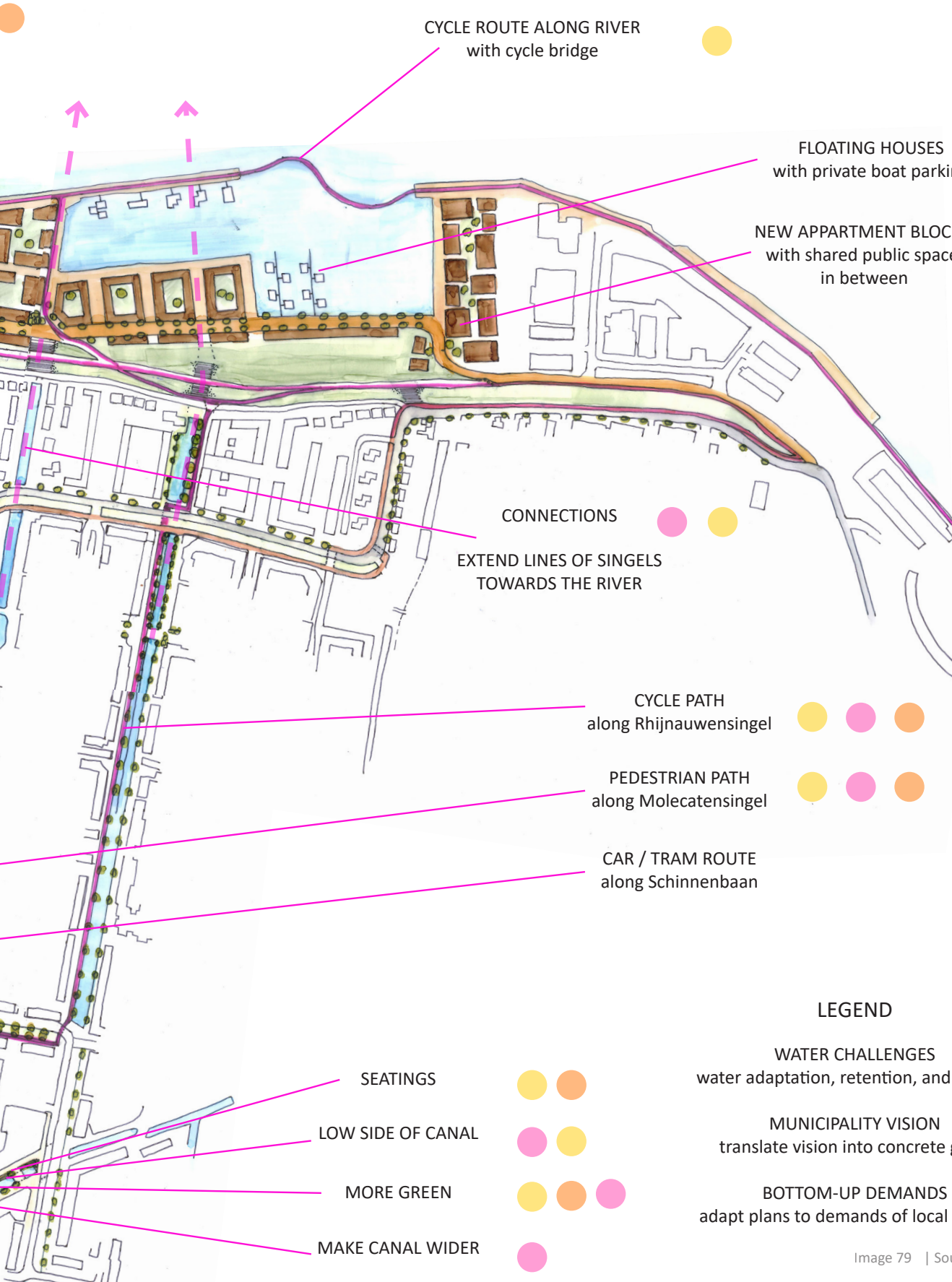CHANGE PARK

MORE WATER PONDS

MORE LOWER PLANTS

ATTRACT PEOPLE TO CENTER

MARKET SQUARE

WATER SQUARE

PLAY GROUND
currently built

CYCLE ROUTE ALONG RIVER
with cycle bridge

FLOATING HOUSES
with private boat parking

NEW APPARTMENT BLOCKS
with shared public space
in between

CONNECTIONS

EXTEND LINES OF SINGELS
TOWARDS THE RIVER

CYCLE PATH
along Rhijnauwensingel

PEDESTRIAN PATH
along Molecatensingel

CAR / TRAM ROUTE
along Schinnenbaan

SEATINGS

LOW SIDE OF CANAL

MORE GREEN

MAKE CANAL WIDER

LEGEND

WATER CHALLENGES
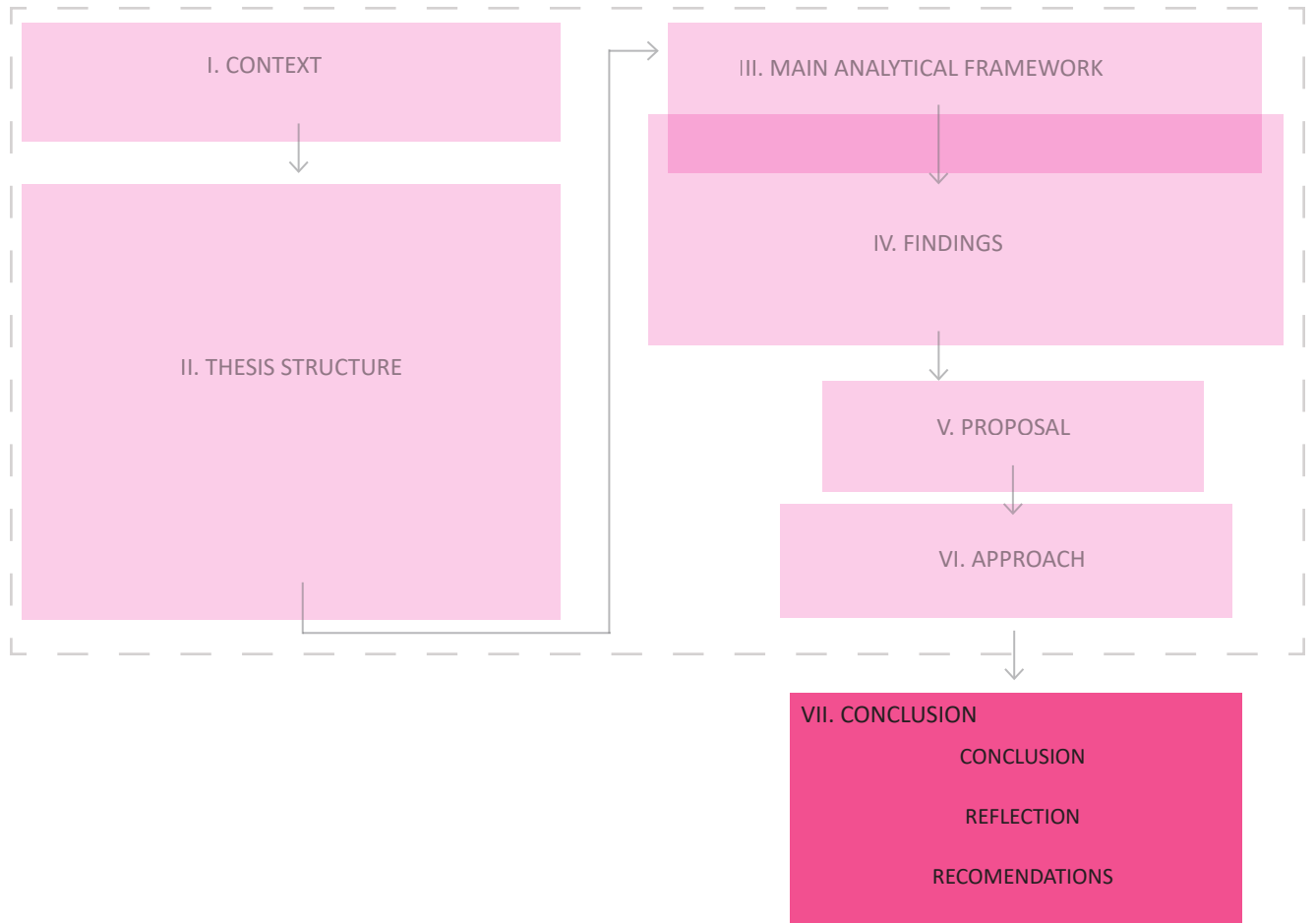water adaptation, retention, and storage

MUNICIPALITY VISION
translate vision into concrete goals

BOTTOM-UP DEMANDS
adapt plans to demands of local citizens

Image 79 | Source: author

7. CONCLUSION

I. CONTEXT

II. THESIS STRUCTURE

III. MAIN ANALYTICAL FRAMEWORK

IV. FINDINGS

V. PROPOSAL

VI. APPROACH

VII. CONCLUSION

CONCLUSION

REFLECTION

RECOMENDATIONS

7. CONCLUSION

7.1. CONCLUSION

In the conclusion the research questions are answered.

PAST DEVELOPMENTS
It can be concluded that a proper application of the urban regeneration plans has stagnated by the financial crisis. The following updated plan from the municipality of Rotterdam was focused on three main focus points, and left public space out. Since it is known that public space is essential for urban regeneration. It can be said that the plan from the NPRZ (Nationaal Programma Rotterdam-Zuid) is not optimal for the improvement of Rotterdam-Zuid.

IMPORTANCE PUBLIC SPACE
A good public space is important because this is where the interaction between (local) citizens takes place. This interaction leads to participation, social security, innovation and cultural exchange, an important basis for a good living environment.
How people experience a place will influence their behavior. So a good public space design can influence behavior of citizens. A good living environment is healthier and invites people to come outside of their homes to participate in public space.

DEMANDS OF LOCAL CITIZENS
The neighborhood Beverwaard is designed as a green family neighborhood. Only houses with their own front door at street level are designed to create interaction between neighbors. More close to the center of the neighborhood, pedestrian have more space than cars. And in the original plan, cars could not cross the canal Oude Watering, so less cars will drive through the neighborhood.
This idea is still urgent, but the outcome of the design together with its functions is not really working.
Out of online surveys and a focus group, local citizens explained that the green spaces are not used and

that there is a need for a new recreational area. Also, the pedestrian routes are used by bikes and motorbikes as well since there are no cycle paths in the whole neighborhood. Most of the functions in the neighborhood are moving out, but citizens want the center of the neighborhood to stay a lively shopping area with neighborhood activities.
From this study can be concluded that the basic design of Beverwaard is not causing the trouble. It is the completion of the design where some things can be improved. The connection towards the river can work as an accelerator for the regeneration of Beverwaard. By creating a new attractive area, it will attract people from the city towards Beverwaard, and it will be attractive place for local citizens to cycle or walk along the river. This new area is also a chance to develop new types of typologies, so people with a rising income do not move out of the area, but can move within the neighborhood.

URBAN REGENERATION PLANS
The current regeneration plan for the public space of Rotterdam is focusing on improving the bad image of the neighborhood, by focusing to create a new identity and creating more functions. This will lead to more job opportunities. Also there is a plan to create a new connection with the river Maas.
The process of the current planning process in Rotterdam is shown in the image 30.
A change in public space starts with an initiative. Most of the time is this on initiative from the municipality. If there is money to start with the initiative, the start of a project will be the integral plan team. This team will exist of different experts involved in this project. For example from 'Stadsontwikkeling' there will be an architect of urban designer, there is one expert from 'Stadsbeheer' about maintenance of the design, and

local stakeholders from the 'winkeliersvereniging'. Then in the project start-up, the plan team will together set the goal for the project. Then a program of requirements will be made and test with policies. Then the first opinion of other involved parties will be asked (like health organizations of fireman), then with this comments, the first draft design will be made and test with a discussion evening where local citizens can come by to give their opinion about the project. After this, the comments will be processed by the plan team and from a draft design will come a final design.

INVOLVEMENT OF LOCAL CITIZENS
The process described before shows that there is only a small part of the whole planning process where citizens can participate and react on plans made by the municipality. It is really rare that local citizens start own initiatives and also join the plan team for specific initiatives.

ENGAGING BOTTOM-UP AND TOP-DOWN
Combining water management and urban regeneration strength each other. Water can be an opportunity to change public space and tackle social issues at the same time.

In the top-down planning process of the municipality of Rotterdam, local citizens can be involved in an earlier stage of the regeneration process and in a more frequent way. Currently, local citizens are asked about their opinion every ones in a while. And often they do not want to answer anymore, since they have the feeling that nothing will change anyway. There is a gap between the municipality and local inhabitants, which is all about communication. Having a better structure in involving local citizens, it will work more efficient for both sites. Informing local citizens with

what is going on, and why, will keep citizens up to date and in this way they can help the municipality with thinking about solutions.

The current top-down urban regeneration plan for the public space of Beverwaard is described in one really short document. This is more a vision for the neighborhood instead of concrete plans. The vision for the public space is proposing very good changes. But since there is no timeframe or no detailed plan how and when this vision will turn into a real plan, there is a chance that these proposed changes never happen. To implement the proposed changes, a more detailed plan is necessary, taking the overview into account and zoom in to street level to propose specific solutions for local problems. These local problems can be reviled by local citizens, since they use the public space and know what is going on in the neighborhood.

To reach the local citizens, online platforms are used by most people and is an accessible way of answering question and giving comments. Discussion meetings or street interviews are not attractive to all of the citizens. In Beverwaard, not everyone is speaking Dutch, so this can make group discussions too challenging and often the cultural barrier with communicating can make a difference as well. Experts from the municipality are experiencing online platforms as the best way to reach as many local citizens as possible. Going by every single home to interview works as well, but costs a lot of time and is not doable for all projects. A new experiment was to do test-cases. By test a certain change in public space by actual make this change temporary.

Concluding from this, a more structural contact with local citizens and the municipality is desirable.

7.2 REFLECTION

This chapter reflects on the graduation project focusing on four subjects. Firstly, the relation between research and design, secondly, the chosen studio and the research subject, thirdly, the chosen method and the methodical line of the research group and finally, the relation of the project with the wider social context.

RELATION BETWEEN RESEARCH AND DESIGN
The research carried out was essential for the design process, because it was the foundation for the design. It started with analyzing the physical and social context of area, and the planning system of the municipality by literature review, mapping, and interviewing experts in the field.
The research question was focused on designing a new urban regeneration plan for the public space of Beverwaard. This new urban regeneration plan involved the whole process of planning and the design and implementation as well. After researching the existing planning process, I applied the improvements recommended by me for designing a new masterplan for Beverwaard.

Phases of research and design process:
Phase 1. Background research of the context, physical and social, and the system: planning process and current plans.
Phase 2. After revealing the current situation, the question was how to involve local citizens: by linking current plan and current process to citizens a new theme was introduced: water. The water challenges for Rotterdam formed a chance for Beverwaard to improve public space by addressing the water issue, in this way the municipality invest into.
Phase 3. What do local citizens want? Using findings from analysis, testing this with locals to reveal their opinion. By sketching different solutions for the (water) problems in public space, local citizens could react.
Phase 4. Using all the input and comments from local citizens and turn this into a spatial design for Beverwaard.
For each design intervention, I have implemented the

findings from three different perspectives.
In this case, a link is made between the water, the demands of local residents and the vision from the municipality in a new research based design for the public space of Beverwaard:
1. Vision of the municipality of Rotterdam, for the city as a whole and specific for the neighborhood Beverwaard.
2. Water vision of Rotterdam: adapting water, clean water, retain water, store water.
3. Demands of local citizens. Out of the online survey and focus group, the main discussed themes were used for the design: singels need to change (more green, room for water), a new recreational area along the river (including bike and pedestrian paths), improving the center of the neighborhood (lowering waterside, more green, add special function).

Without researching the current planning system and physical and social context of the project, I would not have been able to start with designing new proposals. Therefore, I waited to start with the design until I had processed all the input. Looking back at this approach, I could have started designing (in phase 2) while still gaining new input. Since local inhabitants gave really helpful input, I should have executed the focus group with them in an earlier phase of the research process. But if so, I would not have been able to focus on the water topic and to reflect with them on this issue. However, knowing the vision of the municipality and the water vision, I could have started with design solutions before I got the input from the local residents.
On the other side, with these clearly defined problems and proposed solutions regarding the demands of the residents and knowledge about the municipality vision and the water issue, I could implement this obviously into the design.

I have developed a new design plan with input from local residents. The method of practical research and using the input from local inhabitants for the design is really valuable. Alongside the whole design process, I tested the new proposal for a new planning approach,

while involving local citizens, at the same time. This research process is an example of how current processes can change.

THE RELATION BETWEEN THE THEME OF GRADUATION LAB COMPLEX CITIES AND THE CASE STUDY CHOSEN

The Graduation Lab Complex Cities is focusing on the complexity managing the urban spaces and urban life. From my personal perspective the mai¬n goal of the discipline urbanism is the regeneration of underdeveloped areas. Several third world countries have huge underdeveloped areas and we should improve them to reduce the gap between the developed and the underdeveloped world.

In case of informal areas, such as slums in Africa or South America, there is a complexity of various aspects, such as cultural diversity, deprivation and poverty, social structure and lack of knowledge. All these elements are parts of the complexity of informal areas and most of them are part of everyday life in diverse cities all over the world. Therefore, in case of urban regeneration acknowledging the current diversity of actors, it is important to take into account all these aspects. Spatial planning and strategy making can contribute to tackle these problems and diminishing poverty.

For my research I focused towards problem areas of the Netherlands. I expected that in such a well-developed country the development of problem areas would go well. But after doing further research, I discovered that the problem was even more complex. Due to the strict laws and policies, change goes really slow.

In first place I wanted to make an integrated plan for the urban regeneration of a problem neighborhood, including themes as housing, education and job opportunities for example. Since this was too broad, I specified my research only towards public space, which was already very complex. I learned about the many things involved in planning public space, for example policies, different actors, water boards or maintenance of the space.

The Complex Cities Graduation Lab combines planning and design to regenerate the urban environment that will improve city life. My goal with the new urban regeneration plan for the public space of Beverwaard was to propose a change in the planning system to make a design with input from local residents. By involving the many different local actors, the final design created an improved living environment for all different local citizens. In this plan I focused on social improvement of a problem neighborhood, designing spatial and systematic changes to realize this goal. This links to the description of the Graduation Lab, which says that this combination of planning, process and design resolve spatial problems.

In this research social problems will be solved by proposing a new planning process for the municipality of Rotterdam and designing public space of Beverwaard which involve water solutions prepared for climate change, "extreme environmental threats".

THE RELATION BETWEEN THE METHODICAL LINE OF APPROACH OF THE GRADUATION LAB AND USED METHOD

The Complex Cities Graduation Lab is focusing to specific aspects:
- Internationalisation:
As described above, my focus for this research is towards Rotterdam, the Netherlands. The outcome of my research is focused on Rotterdam and Beverwaard. But the main principles of involving local residents into the planning process can be interesting for national use. To realize this, a lot more research needs to be done. Because there is a lot of information about this topic, and many changes are going on, like the implementation of the new law "Nieuwe Omgevingswet". Hopefully this can be a start for a systematic approach to involve citizens into the planning process. Since the main goal of the project was to improve the living environment of local residents by systematic approach including all actors into the process.
- Transdisciplinary approaches:
The research of how bottom-up demands can be engaged with top-down planning strategies is

approached from two different perspectives. Top-down perspective I researched the planning structure and plans of the municipality of Rotterdam and bottom-up I reviled the demands of local citizens of Beverwaard.

- Involve the interests, responsibilities and resources of actors in research and design:

By my bottom-up approach, I involved local actors into the planning and design process by talking to them, asking for their opinion in an online survey and in group discussion. Besides researching reports and policies about the current regeneration plans, I talked to experts working for the municipality of Rotterdam, to know what their opinion is about involvement of local residents and the planning structure of the municipality. This shows my ability to position myself in "societal and political debate".

- Imagine changes in the built environment and manage such change:

To regenerate a problem neighborhood, I focused in the first place on how the process of regeneration was working for this neighborhood, focusing to what could change in the process. In the end, a new regeneration plan is created including how the process can change further development. By my suggestion for a new planning process, local citizens are better involved and new developments will better integrate with the local actors. I could have start in an earlier stage with designing new changes for Beverwaard because then I would have more time to reflect the changes with local citizens itself. In this case the implementation and management of the planned changes would work better.

RELATION BETWEEN PROJECT AND THE WIDER SOCIAL CONTEXT

My goal was to design a new urban regeneration plan for the public space of Beverwaard. To reach this goal, I started by research the current situation from top-down perspective and bottom-up perspective. After this I defined the problems and then I proposed a solution. The outcome addressed all different

solutions together in one urban regeneration plan.

What did my research add to solving the problem described?

This research is a new addition to improve the current planning system for urban regeneration of Rotterdam. For my research the goal is to improve regeneration strategies by involving local actors. I made a proposal for the involvement in the planning process and I involved local citizens into my own planning and design process. To make it really work for all the projects in Rotterdam, the research needs to be done in all different neighborhoods to check if it will work the same for all different places.

I developed a new urban regeneration plan for the public space of Beverwaard. Here I used Beverwaard and Rotterdam as a case study, to improve the city's planning process and show in Beverwaard how this plan will work. Since the planning process can use the same basis for every city part, the whole city can use similar processes, when tested for the specific area. The proposal for involving citizens can be applied within each project for changing the public space, on local neighborhood scale to city scale.

Besides focusing on the urban regeneration plans of the municipality of Rotterdam, I integrate multiple aspects into one plan. By this I address the water issue for the neighborhood Beverwaard, according the city water vision. This is a contribution to the water vision to make Rotterdam climate proof and resilient for extreme floods or rainfall. This research was an interesting change in the project. This shows that everything is connected within the city, and that you can never just solve one problem by one project. But it also shows that you can address parts of different problems into one project.

7.3 RECOMMENDATIONS

This chapter shows the limitations of this research followed by the recommendations for further research to develop and implement the new proposed regeneration plan.

LIMITATIONS
Looking back at the process of this graduation research, local citizens could have been involved in an earlier stage to get more feedback on my personal ideas. Due to the practical way of researching in the field, certain methods to gain information often costs a lot of time before reaching the right people with the right information.

Online survey
Sharing a Dutch online survey via Dutch local websites and Facebook pages had the limitation that mostly Dutch citizens replied. Statistics show that Beverwaard is a very mixed cultural neighborhood. This did not show in the outcome of the online survey. To reach a broader set of local residents, other methods should be used. Translate the online survey in other main languages represented in the neighborhood can make a change. Also a personal approach would help local citizens to understand better what the research is about which makes people more flexible to help.

Focus group
The focus group which is done for this research was a discussion with a selected group of five Dutch people, all with the age above 40. To reach a broader set of residents who are willing to join a group discussion, a more personal approach would help by using the social network within the neighborhood and cross cultural and language barriers.
The five local citizens of Beverwaard who joined the focus group are active involved within the neighborhood and had a lot of information to share. But these people do not represent the weakest group of the neighborhood.

Interviews
The experts who are interviewed are chosen because of their expertise in participation of local citizens. These people cannot refer to all the employees working for the municipality of Rotterdam. To get to know what employees think about the working structure and processes, a survey will help to reach more people which will give a broader perspective.

FURTHER RESEARCH
Extra validation on design and process
To get a better validation of the outcome, more local citizens and experts should be interviewed.
To improve the design outcome, the ideas should be test and discussed at least one more time with the local citizens of Beverwaard in the form of a focus group with a divers group of people as well as a group of experts from the municipality of Rotterdam. To validate the proposed new process, input from local citizens can be helpful.

Communication
The outcome of the research shows that communication between different actors is important to let the plan work. In what way the municipality and local citizens communicate should be researched further to make a proposal for a more systematic approach.
Involving different actors into one project ask for good communication. To make a real change in the processes, an expert in communication skills should research the different ways of communication between the different groups. Important questions are how to exchange knowledge between the different groups in a frequent way, or how to make experts working for the municipality aware of the new opportunities?

Bring different systems together
In this research water management is used to strengthen the improvement of the urban

regeneration plans. To get a better grip on how these two can work together, more research is needed in water management systems.

To have a better understanding of the possibilities, more can be explored in how different parties can cooperate within the municipality. This thesis shows the beginning of how positive cooperation between different actors can work out.

IMPLEMENTATION

What needs to change to let plan work?

For both the proposed new process and the regeneration plan, a good way of communication between the municipality and the inhabitants is very important. This initiative for a better communication should start with the municipality. They are responsible to exchange knowledge with the local inhabitants.

To create a better involvement from local citizens into the planning processes of the municipality, a good start is made by the new lay 'Omgevingswet' which gives more insight in all the different policies. Making this new system work, a good implementation is necessary, as well with local citizens as within the municipality. An expert should guide new implementations within the municipality so all different employees will communicate better and help each other out.

For example in Beverwaard, a local citizen started a new initiative "doet effe mee cafe". This new café in the center of Beverwaard is for everyone in the neighborhood to come together and share knowledge, have discussions etc. After this initiative, Toos Landman, working for the department maintenance of the municipality of Rotterdam decided to use this café as a place to talk to local citizens once a week. This can be a start of a structured way of sharing knowledge, gathering the right input from all different citizens and being able to transform these into plans.

8. REFERENCES

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