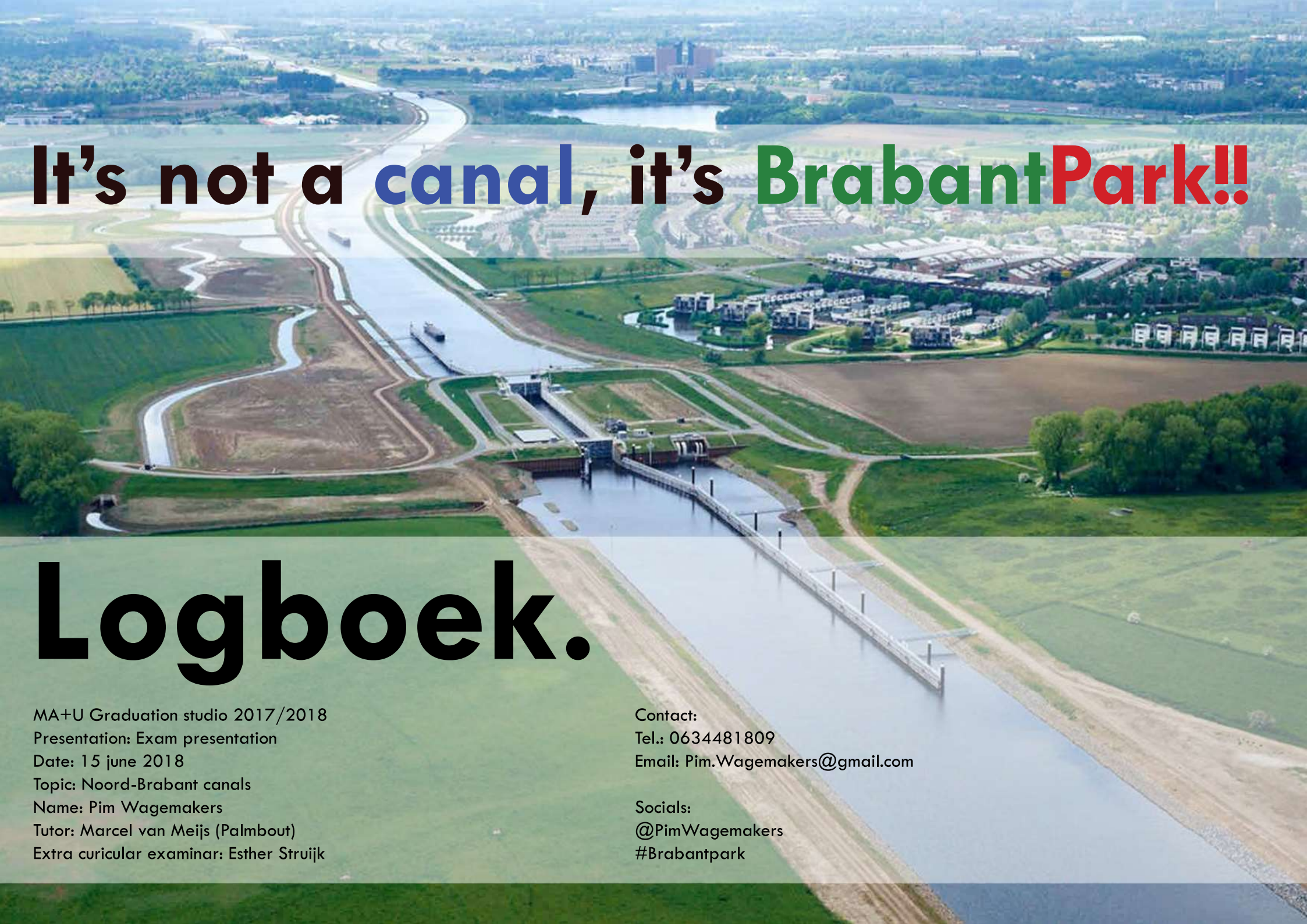


An aerial photograph of a canal system in a rural landscape. A large lock structure is visible in the center, with a canal winding through green fields and some residential buildings in the background. The text 'It's not a canal, it's BrabantPark!!' is overlaid on the top half of the image.

It's not a canal, it's BrabantPark!!

Logboek.

MA+U Graduation studio 2017/2018

Presentation: Exam presentation

Date: 15 june 2018

Topic: Noord-Brabant canals

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[#Brabantpark](#)

The Brabant canal network is a park, the longest blue-green park in the Netherlands. In 1928 the Belgian surrealist painter René Magritte painted a realistic image of a pipe with the text below it “This is not a pipe”. With this he pulled the visitor away from the subject and to the materials of the work, oil on canvas (Magritte Surrealisme, 2018). The same applies to the Brabant canals. By disassembling the canals, you discover the ingredients for a diverse and exciting park that extends all over Brabant, from now on I call this discovery Brabantpark!

By applying René Magritte's way of looking (Magritte Surrealisme, 2018) at the canals, these canals are presented in a different light; they are now not a port-to-port connection, like a subway system, but an exciting green-blue park with ingredients such as water, rivers, routes, bushes, avenues and a diverse collection of landscape and urban spaces. This park is a new recreational main structure for Brabant and Brabant City (the five largest cities of Brabant). Cities that are linked by Brabantpark with a shortage of recreational routes gain opportunities to areas such as the Biesbosch, Loonse and Drunense dunes and De Peel. The Province of North Brabant invests in the canals as an economic connector and recognizes these as having recreational potential, but has no concrete recreational plans. (Vastenhoven, 2018) (Provincie Noord-Brabant, 2014)

Transport system (Sailing the canals)

Organic banks along the canals create new ecological connections for flora and fauna uniformly along the entire canal, linking forest areas and river valleys along Brabantpark. For the visitor of Brabantpark, the water is now approaching in a friendly manner. These banks, but mainly the canals, can also be experienced from the water by means of the hop on / off possibility of cargo ships. These ships must wait for every lock and low bridge. This waiting time will be used economically for Brabantpark visitors. This creates a transport system that is complementary to the existing infrastructure. As a result, fewer parking spaces are needed, remote parts are accessible and not damaged by new infrastructure. By using disused sluiswachtershuisjes (lockguard houses, the locks are remotely controlled nowadays) (Verkade, 2017) (Brabant, Erfgoed, 2014) as waiting room and bicycle storage the recreationalists can comfortably wait for the next ship and store their bicycle for the next weekend. This is in line with the trend that recreational users find accessibility and reachability more and more important.

Route network

The route network that stretches from the Brabantpark intersections mostly uses existing roads and paths, but adds paths that are crucial for a complete experience of the landscape. The system is built up in laps that concentrate on the scenic spaces along Brabantpark. Each lap connects to the next one, so that each lap can always be expanded. A lap consists of 5 kilometers for walkers and 20 kilometers for cyclists, which is about one hour of recreation time. This embraces a part along the canal and then turns into the core of the landscape room. This can include a river, forest area, city center or avenue structure. The possibility to further extend or shorten the route length itself is in line with the trend towards individualization among recreationists. (Stichting wandelplatform, 2010)

City walk Veghel (route example 1)

From Sluis 4 in Veghel we start our first city walk. From the lock we walk along the Zuid-Willemsvaart towards the crossroad, where the harbor channel of Veghel begins. Brabantpark has provided a viewpoint that is suspended from the viaduct to allow the visitor to see the length of the canals. Here we also find our first Brabantpark “frame” that we scan with the app, that shows us what it used to look like. We continue our route along the harbor channel, Heilighardplein, Hoogstraat and then we arrive at the river Aa and the Markt van Veghel. We have now walked from industrial Veghel to the historic core of Veghel. The city has grown to the canal but originated around the Aa. This is explained in the second Brabantpark “frame” along the route. The route continues downhill, where we also encounter the Brabantpark kayak route and use the new path that meanders along with the river and thus forms a contrast with the straight lines that follow the canals.

The route takes the visitor through the western valley of the river and illustrates how the canal has taken over the valley and its importance for the city of Veghel. Just like the other routes that we will encounter outside Veghel and around Haghorst, there is a low-threshold and visual story in the frames along the canal and a more thorough and conceptual story along the route. This is in line with the trend that recreation seekers are looking for depth of knowledge and experience. (Stichting wandelplatform, 2010)

Exploration of the Aa valley (route example 2)

After the city we enter the countryside area. We start again along the Zuid-Willemsvaart on the spot where the Germans crossed the canal in May 1940, that is the content of the first frame. Through the open production landscape we walk down through the closed forest. Here a new paved path is provided so that this part of the route is also available for cyclists. After the forest we go further down through a small-scale coulisse landscape towards the river Aa, where the route connects to the new path that meanders along with the river and the Brabantpark kayak route. The relation channel and the Aa are explained in the second Brabantpark “frame” that we encounter.

The route emphasizes the scenic qualities that the area shows between the Zuid-Willemsvaart and Aa river stretches.

Near Haghorst (route example 3)

To the west of Haghorst we are going to start our next route from the Wilhelmina canal, where we get to know a canal in a Brabantpark-frame that has never been built towards the south (Wenting, 2011). We descend the canal dike and go through the open production landscape towards the river Reusel. Cross this at the petting zoo and then, following a new walking path, we follow the meandering river back towards the canal. Towards the canal, we can see how much higher the canal is in relation to the landscape and that the river Reusel passes underneath the canal. (Kerkhof, 2018) The “frame” that we encountered at the river bridge has informed us about this before.

From the canal, which forms the constant in Brabantpark, the route runs to the special feature of the landscape room. In this case the room is a river valley and the special feature is the river that formed the room.

Tilburg, small Brabantpark

In Tilburg the canal cuts through the city, but it also connects the city. It is not a channel, but like the rest of the canal system it is a park and part of Brabantpark. Here consisting of two river valleys, a forest area and the zones where the city has withdrawn from the canal in various ways. When we walk the park completely we recognize the canal industrial ports, that form an interruption in the new Brabantpark organic watersides with adjacent street profiles and public spaces that introduce a new openness and separation between public and private, so that residents now live in the park instead of the street that happens to be along the canal.

Brabantpark connects itself with the urban zones perpendicular to the canal by making existing routes recognizable, breaking through barriers and softening with a reduction in planting and the introduction of gradual differences in height. In the length, Brabantpark contributes to the unity of the city by forming a recognizable continuous park connection the various urban zones.

Brabantpark facilitates the citizens' initiative Sportkanaal Tilburg, which links the sports facilities to the Kanaalzone and respects the rebuilding and widening of the locks 2 and 3 to the economic value of the canal. (Straaten, 2017) (Greef, 2015)

Living on a green canal

From the center of Tilburg we walk towards the Wilhelminakanaal, accompanied by the recognizable materials such as metal, cobblestones and ship boulders that run into Brabantpark. Arriving at the canal we are on a Brabantpark industrial waterfront jetty and we look out over an urban Brabantpark landscape and recreation trails with pastures, wetlands and Sportkanaal routes.

The Brabantpark green structure will be continued on this part of Brabantpark in the form of an ecological park with wadi's linked to the canal through which the original paths run on their original height level. By cutting into wadis and Brabantpark places, subtle differences in elevation arise with wet and dry proportions, making the public space more diverse and larger in perception. The example zone “Living on a green channel” is built up in three design layers. The basis is laid by the landscape of wadis and the organic Brabantpark banks. The landscape is made accessible by a route network that in the south focuses on continuity, direct connection to the sports facilities and the relationship with residential areas. Materialization is industrially related. In the north, the relationship between Brabantpark and the residential area is by the introduction of a fine-meshed informal stray network between and through the wadis. The places give function to the routes and the landscape. The south is sport related with space for,

for example, running, cycling or Nordic walking on the trails and fishing, viewpoint and recreational mooring on the places. In the north there is space on and between the paths for walking and playing. The places are arranged as relax and picnic spots along the canal.

Financing and phased introduction

Brabantpark is not a park for Brabant, but from the Brabanders. Along, in and around Brabantpark we encounter agricultural recreational and tourist functions that partly finance the Brabantpark routes and in this way finance and maintain their own connection to Brabantpark. With this, these local participants create Brabantpark.

Local entrepreneurs, residents and municipalities build Brabantpark, coordinated and co-subsidized by the province and the government as a stimulation fund. As a result, Brabantpark is growing at the pace of the local Brabant recreational economic pace.

Concluding, Brabantpark in layers

The ambitions, opportunities and consequent objectives that form Brabantpark can be summed up in three layers, landscaping (the base layer is approached from the water and channel perspective), route layer (channel and landscape leave their autonomous state and connect with the local environment) and functional places (goals and destinations with Brabantpark secondary use).

Landscape layer (ecological mechanism)

The canal system of Noord-Brabant is not a channel system, but it is the longest park in Brabant that connects urban centers. The introduction of organic banks also creates a robust ecological connection between river valleys and wooded sand ridges.

Route layer (transport and accessibility mechanism)

This newly defined park will accompany a Brabantpark route structure. This consists of a transport system that uses the cargo ships and has hop on/hop off places, where the ships have to wait for bridges and locks. From these intersections there are expandable routes that circle for an hour each by bicycle or on foot along the canal and emphasize to the subject of the landscape room in which they are located.

Functional places layer (use mechanism)

Nevertheless, the park is not only functionally a route structure, but also forms a new recreational vehicle for the Province of Noord-Brabant. This park function creates unity in Brabant and its cities. It brings accessibility and recreational value to quiet Brabant landscapes while it introduces rest and space in the Brabant cities in the form of a ribbon park.

Brabantpark is using existing qualities for a new recreational main structure in North-Brabant.

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All pictures made by auteur, if references are used the sources are listed.

Brabantpark, definition

A new recreative green/bleu main structure for North-Brabant

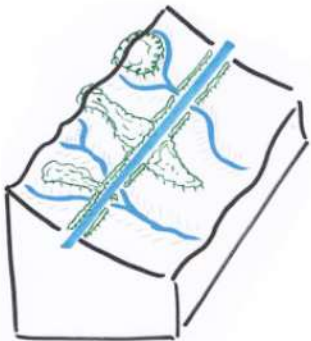


Two types of canals

East-West and North-South

Wilhelminakanaal

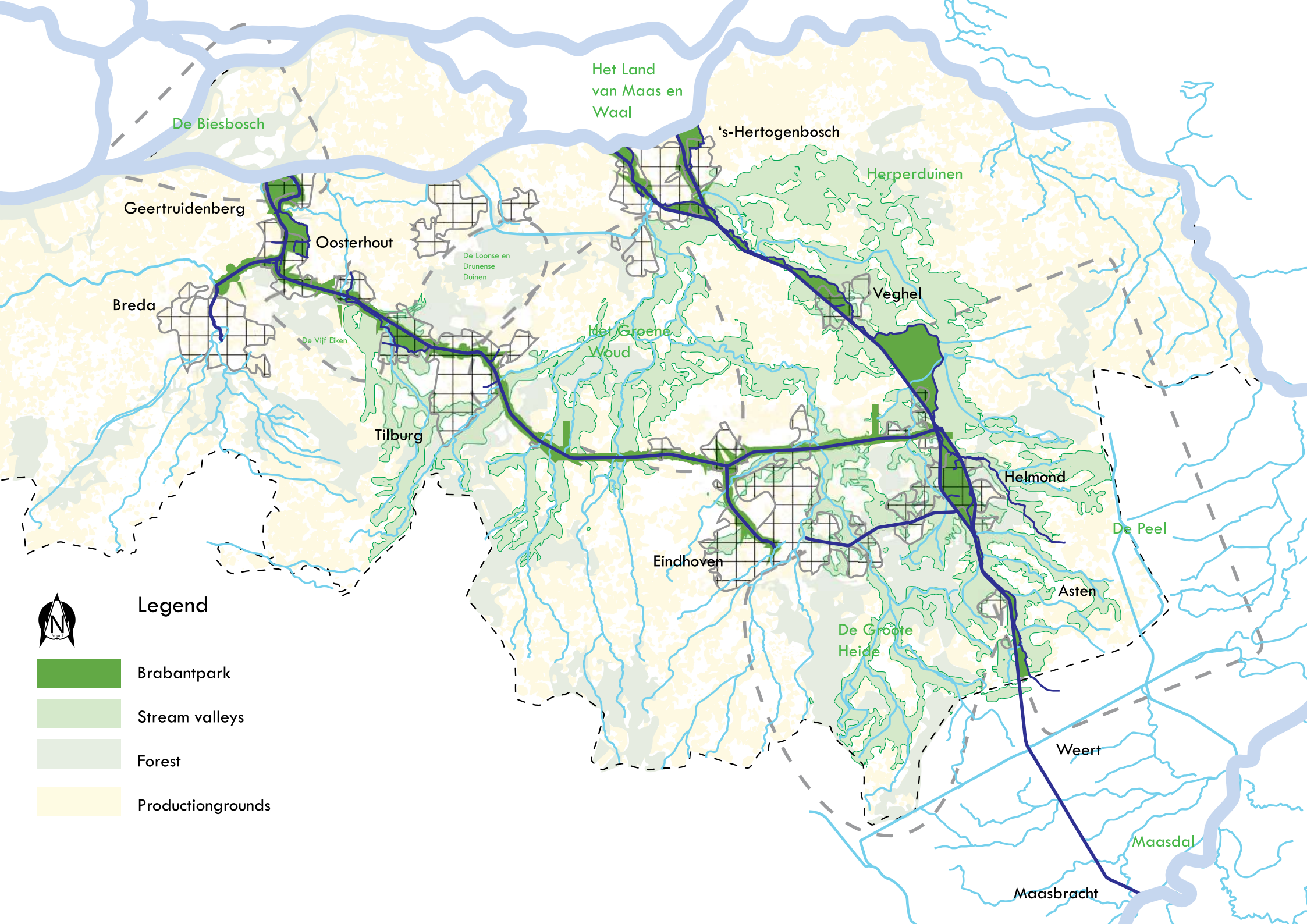
Along the elevationlines



Zuid-Willemsvaart

Following the stream valley





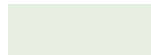
Legend



Brabantpark



Stream valleys



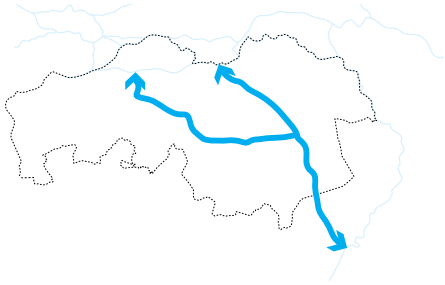
Forest



Productiongrounds

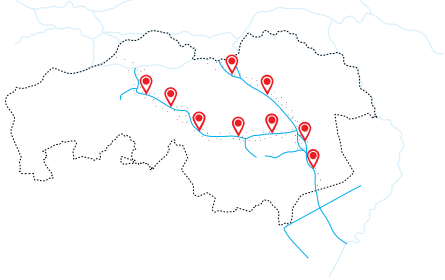
Four ambitions of Brabantpark

Acting as one structure combining landscape, routing and places



Continuity

One recognisable and uninterrupted parc



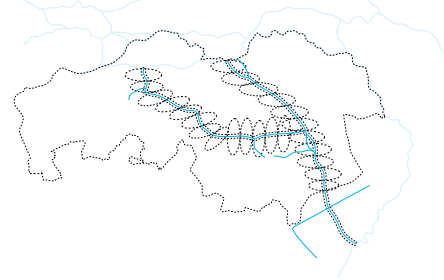
Places

Low bridges and locks are intersections in the parc used for a hop on/of transport system.



Ecological parc

Organic watersides and a relation to parallel water streams

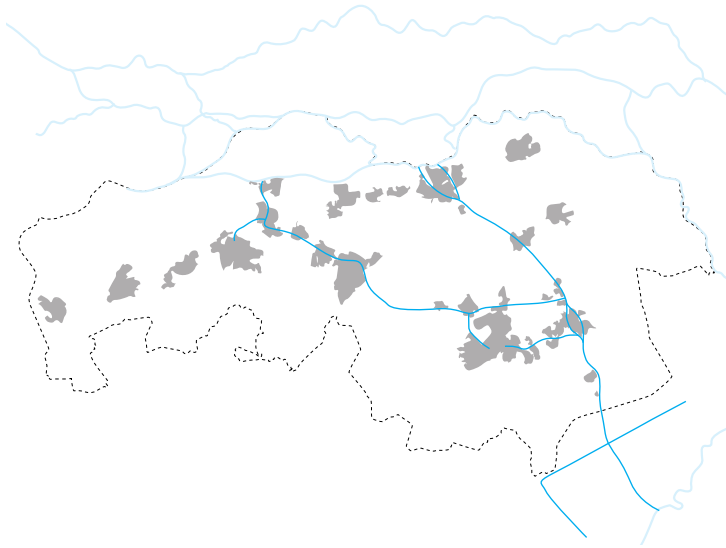


Routes

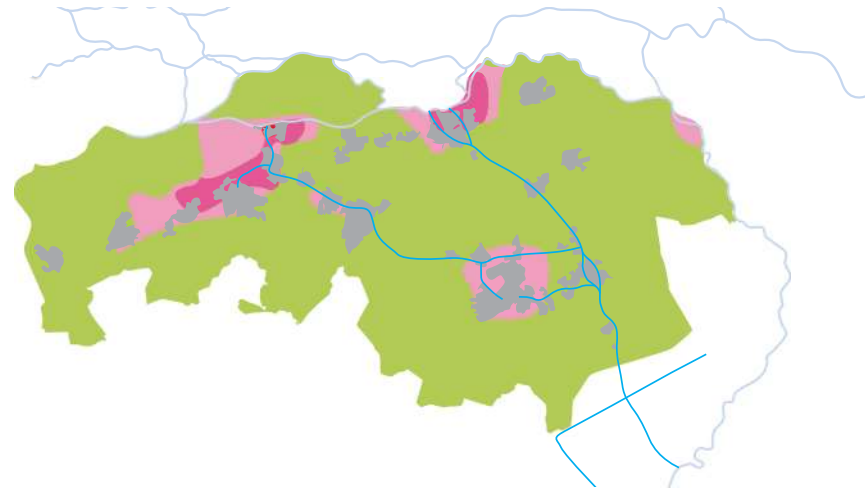
Including recreative functions in connecting routes focussing on local landscape characteristics



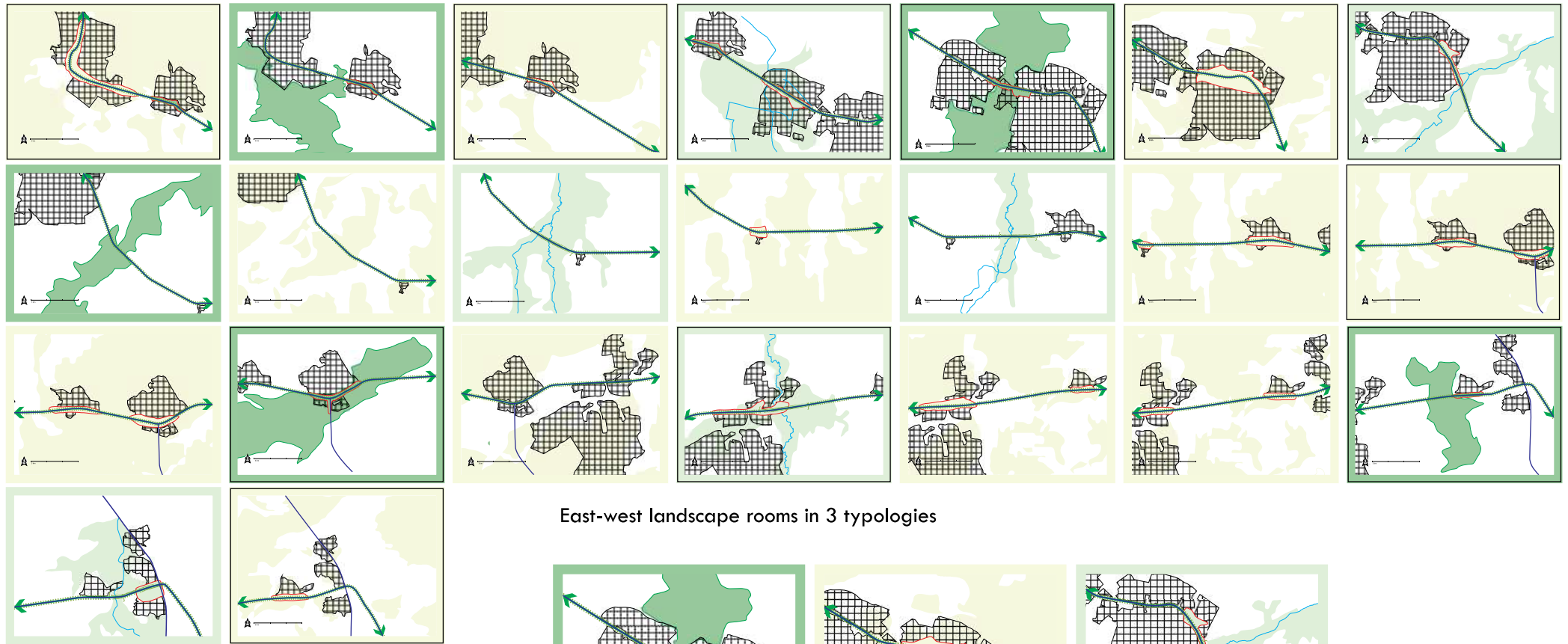
Canals touch Brabantstad



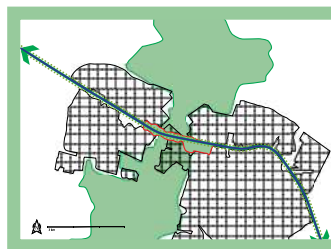
Canals touch areas with less recreational route options.



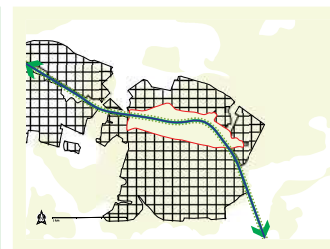
East-west landscape rooms of Brabantpark



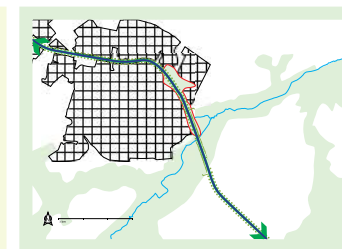
East-west landscape rooms in 3 typologies



Forest room, high sand ground between stream valleys.

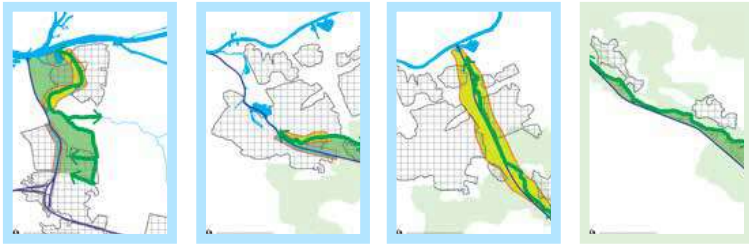


Production grounds, fertile grounds between stream valleys and the less fertile higher sand grounds. Coulisce landscapes are found in these zones. Settlements were erected in these zones as well but close to the stream valleys.

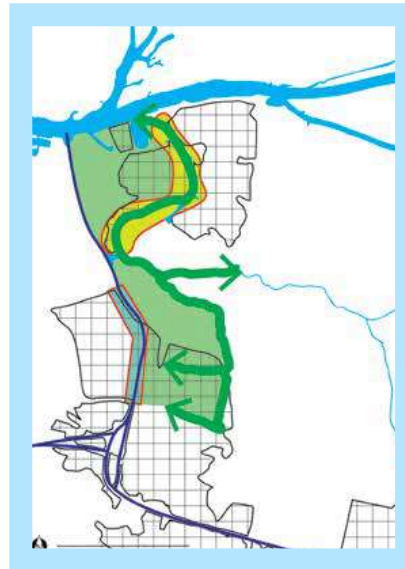
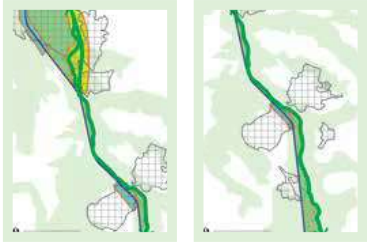


Stream valley, very open and fertile grounds but also vulnerable for overflows.

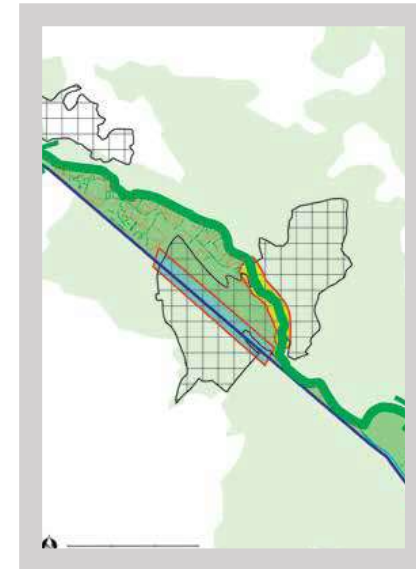
North-south landscape rooms of Brabantpark



North-south landscape rooms in 3 typologies



Big river valley, open polder landscape.



River valley clouisse production landscape in a urban setting.



River valley clouisse production landscape in a non-urban setting.

Brabantpark, the system

The Brabantpark experience



Legend



Hop on/off location ship



Restaurant



Cafe



Shelter



Bike storage



Information location (related to the Brabantpark app)



Shops



Sleeping accommodation (Hotel)



Primair interesting point (related to the app)



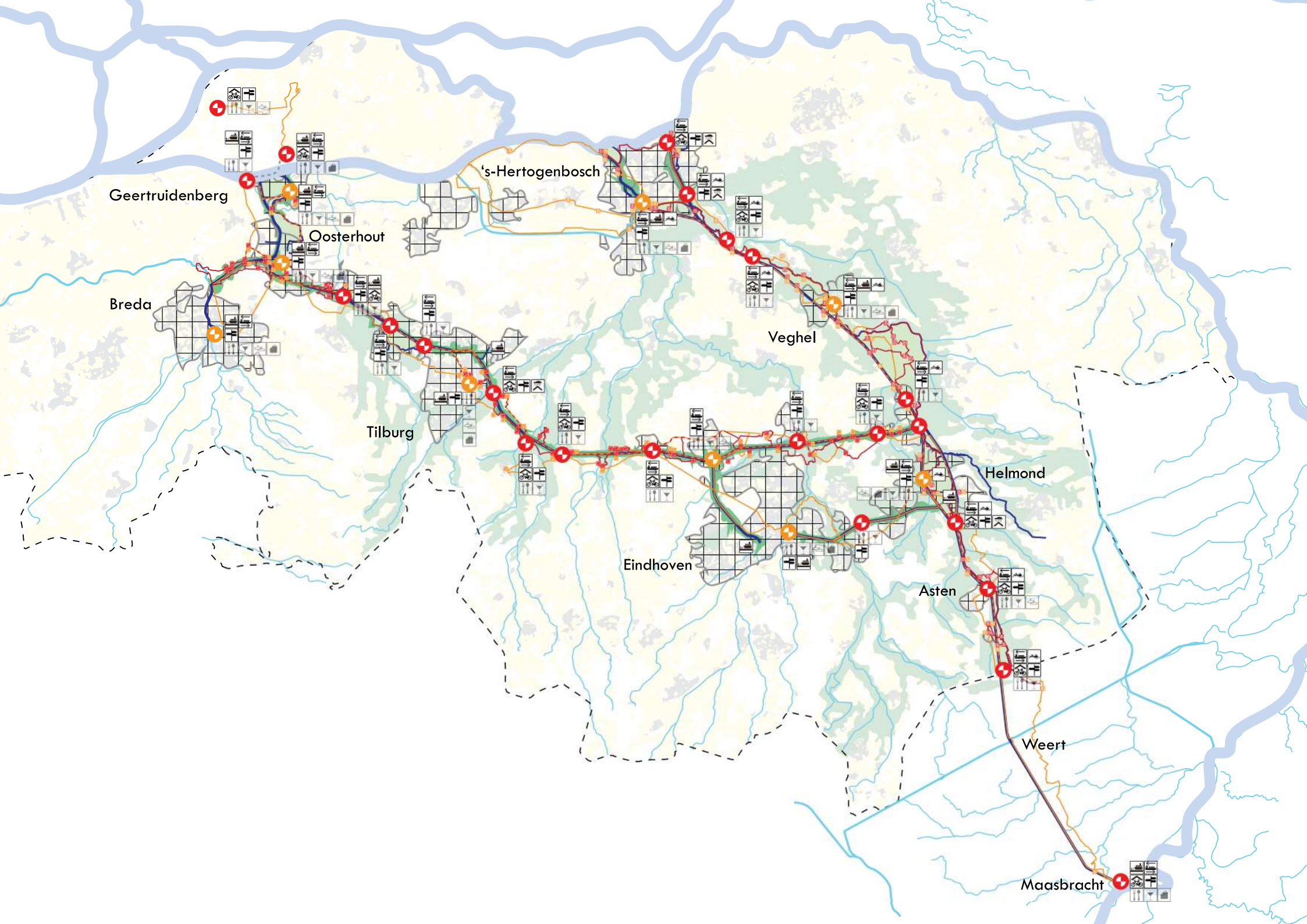
Secundair interesting point (related to the app)



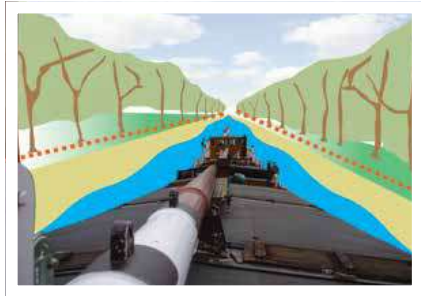
Recreational mooring facility



Kayak in/out and resting spot



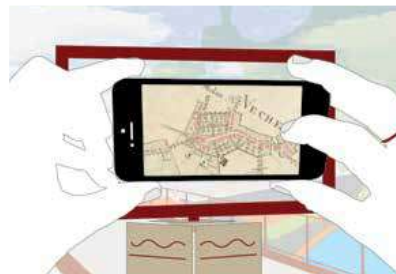
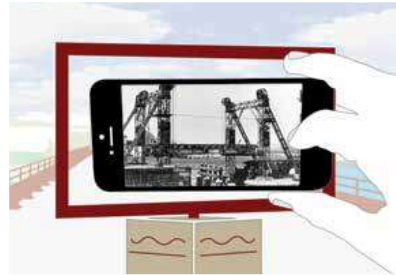
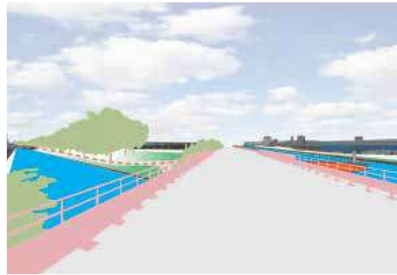
Sailing the canal



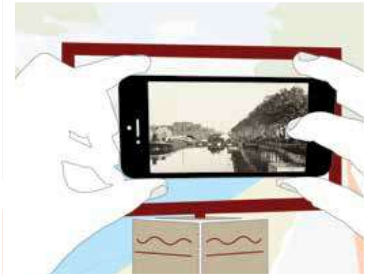
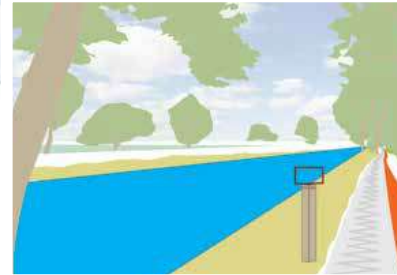
Hop on/off at lock



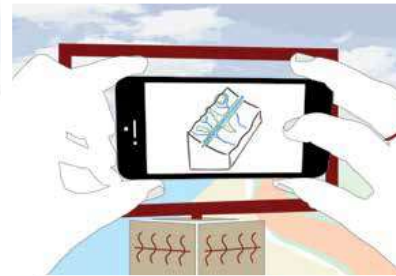
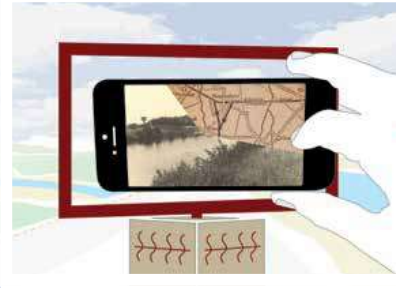
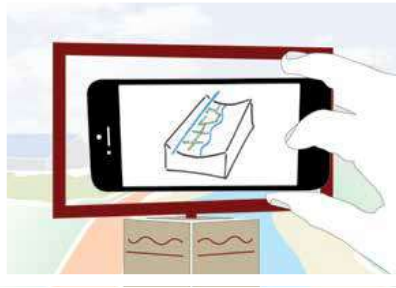
Route example 1



Route example 2



Route example 3



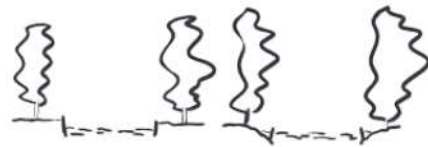
Brabantpark, Tilburg, small

Brabantpark

Translating Brabantpark to urban benefits



Basic principals of Brabantpark in Tilburg



- 1, respecting the local identities.
- 2, introducing the organic continues watersides of Brabantpark.
- 3, Include streets into brabantpark. By including streets the houses and businesses are situated allong Brabantpark instead of allong a street next to the canal.

Case 1

Case 2

Case 1. North stream Valley (stream valley)

Current situation: The Canal is a forgotten area behind the back of the neighborhood.

1. Between sand and stream Valley (stream valley)

Current situation: The Canal is a forgotten area behind the back of the neighborhood.

2. Sand forest (forest)

Current situation: Canal and lock are distanced from the neighborhood by fences and a dike acting as a wall. The green is unpenetrable and non-see through.

3. Harbor 1 (forest)

Current situation: Wide, not used and non-functional green space.

Case 2. Harbor 2

Current situation: City has turned its back to the canal by forming a no green and unwelcoming industrial zone.

4. Harbor 3

Current situation: City has turned its back to the canal by forming a not green and unwelcoming industrial zone.

5. South stream Valley (stream valley)

Current situation: Street is not included in the main local spatial quality.

Legend

- General trees
- Connecting routes trees
- Place marking trees
- Canal line trees
- sports fields
- Light forest
- Dense forest
- Fields
- Canal
- Rivers and lakes
- Natural wandering path
- Industrial sports path and ongoing Brabant-park route.
- Organic waterside
- Hop on/off locations

Brabantpark, in the city

The three landscape typologies under the urban environment



Case 1, Harbor 2 - former production fields

Wetlands relating to fields



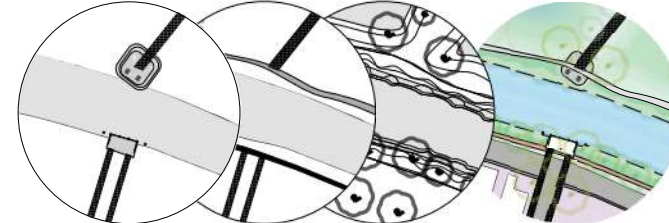
Routing

Connecting sports facilities along the red industrial sport paths, wandering around along the natural green pathways.



Place

Industrial sports jetty on the harbor side, natural lounge and picnic place in the rough Brabantpark wetlands. The contrast creates the contact to both canal sides.



Industrial sports jetty in contrast with the natural park place on the north side.

South the ongoing industrial path related to the harbor. North the wandering natural path.

Situated in the Brabantpark inspired organic landscaping.

Total image of the park places related to each other by contrast situated in the organic landscape.

Case 2, North stream vally - stream vally

Clearing out the vally



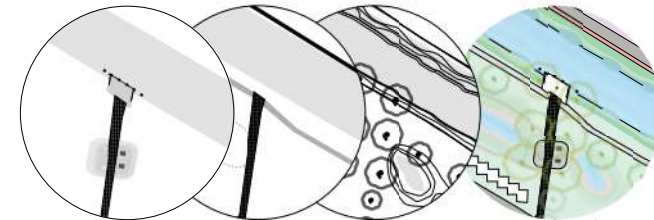
Routing

Connecting sports facilities along the red industrial sport paths, wandering around along the natural green pathways.



Place

Industrial sports jetty at the canal side, natural lounge and picnic place between the rivers. The contrast creates the contact to both canal sides.



Industrial sports jetty along the canal, picnic relax park place between the riversides.

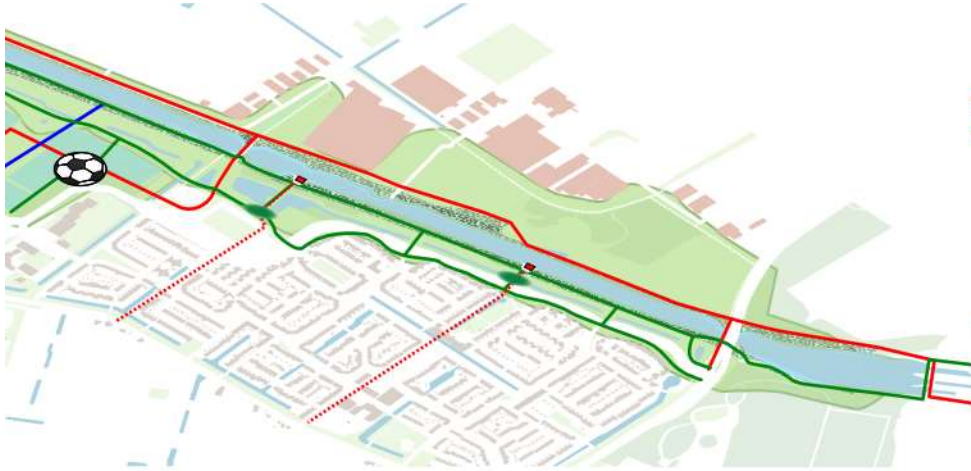
Ongoing industrial Brabantpark fast route on the harbor side of the canal. Park routes in nature.

Organic landscape with organic watersides, rivers and treestructures.

Total image of the park places related to each other by contrast situated in the organic landscape.

1. Between sand and stream Valley (stream valley)

Creating places with a direct relation in the neighboring neighborhood combined with clearing dense shubbery green under the forest trees.



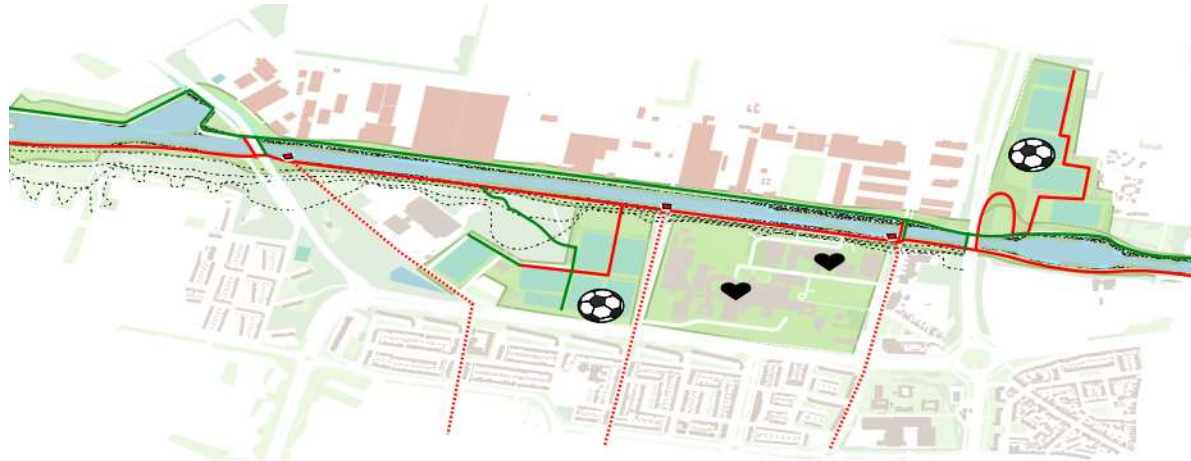
2. Sand forest (forest)

Respecting the forest but clearing the overgrowing shubbery. The current dike is made wider so the park becomes a slope upwards towards the canal.



3. Harbor 1 (forest)

The current dike is made wider so the park becomes a slope upwards towards the canal. By respecting the forest, including the sports fields and the hospitals in Brabantpark added value is created for patients and sporters.



4. Harbor 3

Creating places with a direct relation in the neighboring neighborhoods combining and including all space between the buildings and the canal to create a “living along Brabant-park” situation.



5. South stream Valley (stream valley)

Including all space between the buildings and the canal to create a “living along Brabantpark” situation.



Legend

- Industrial road
- Wandering roads
- Sports facilities to be included in Brabantpark
- Hospital to be included in Brabantpark
- Water
- Housing
- Compagnies
- Forest

Description

- Graduation assey
- Thesis waterbodies
- First essay draft
- Disrupted spaces
- Vergeten kanalen

The Brabant canal network is a park, the longest blue-green park in the Netherlands. In 1928 the Belgian surrealist painter René Magritte painted a realistic image of a pipe with the text below it “This is not a pipe”. With this he pulled the visitor away from the subject and to the materials of the work, oil on canvas (Magritte Surrealisme, 2018). The same applies to the Brabant canals. By disassembling the canals, you discover the ingredients for a diverse and exciting park that extends all over Brabant, from now on I call this discovery Brabantpark!

By applying René Magritte's way of looking (Magritte Surrealisme, 2018) at the canals, these canals are presented in a different light; they are now not a port-to-port connection, like a subway system, but an exciting green-blue park with ingredients such as water, rivers, routes, bushes, avenues and a diverse collection of landscape and urban spaces. This park is a new recreational main structure for Brabant and Brabant City (the five largest cities of Brabant). Cities that are linked by Brabantpark with a shortage of recreational routes gain opportunities to areas such as the Biesbosch, Loonse and Drunense dunes and De Peel. The Province of North Brabant invests in the canals as an economic connector and recognizes these as having recreational potential, but has no concrete recreational plans. (Vastenhoven, 2018) (Provincie Noord-Brabant, 2014)

Transport system (Sailing the canals)

Organic banks along the canals create new ecological connections for flora and fauna uniformly along the entire canal, linking forest areas and river valleys along Brabantpark. For the visitor of Brabantpark, the water is now approaching in a friendly manner. These banks, but mainly the canals, can also be experienced from the water by means of the hop on / off possibility of cargo ships. These ships must wait for every lock and low bridge. This waiting time will be used economically for Brabantpark visitors. This creates a transport system that is complementary to the existing infrastructure. As a result, fewer parking spaces are needed, remote parts are accessible and not damaged by new infrastructure. By using disused sluiswachtershuisjes (lockguard houses, the locks are remotely controlled nowadays) (Verkade, 2017) (Brabant, Erfgoed, 2014) as waiting room and bicycle storage the recreationalists can comfortably wait for the next ship and store their bicycle for the next weekend. This is in line with the trend that recreational users find accessibility and reachability more and more important.

Route network

The route network that stretches from the Brabantpark intersections mostly uses existing roads and paths, but adds paths that are crucial for a complete experience of the landscape. The system is built up in laps that concentrate on the scenic spaces along Brabantpark. Each lap connects to the next one, so that each lap can always be expanded. A lap consists of 5 kilometers for walkers and 20 kilometers for cyclists, which is about one hour of recreation time. This embraces a part along the canal and then turns into the core of the landscape room. This can include a river, forest area, city center or avenue structure. The possibility to further extend or shorten the route length itself is in line with the trend towards individualization among recreationists. (Stichting wandelplatform, 2010)

City walk Veghel (route example 1)

From Sluis 4 in Veghel we start our first city walk. From the lock we walk along the Zuid-Willemsvaart towards the crossroad, where the harbor channel of Veghel begins. Brabantpark has provided a viewpoint that is suspended from the viaduct to allow the visitor to see the length of the canals. Here we also find our first Brabantpark “frame” that we scan with the app, that shows us what it used to look like. We continue our route along the harbor channel, Heilighardplein, Hoogstraat and then we arrive at the river Aa and the Markt van Veghel. We have now walked from industrial Veghel to the historic core of Veghel. The city has grown to the canal but originated around the Aa. This is explained in the second Brabantpark “frame” along the route. The route continues downhill, where we also encounter the Brabantpark kayak route and use the new path that meanders along with the river and thus forms a contrast with the straight lines that follow the canals.

The route takes the visitor through the western valley of the river and illustrates how the canal has taken over the valley and its importance for the city of Veghel. Just like the other routes that we will encounter outside Veghel and around Haghorst, there is a low-threshold and visual story in the frames along the canal and a more thorough and conceptual story along the route. This is in line with the trend that recreation seekers are looking for depth of knowledge and experience. (Stichting wandelplatform, 2010)

Exploration of the Aa valley (route example 2)

After the city we enter the countryside area. We start again along the Zuid-Willemsvaart on the spot where the Germans crossed the canal in May 1940, that is the content of the first frame. Through the open production landscape we walk down through the closed forest. Here a new paved path is provided so that this part of the route is also available for cyclists. After the forest we go further down through a small-scale coulisse landscape towards the river Aa, where the route connects to the new path that meanders along with the river and the Brabantpark kayak route. The relation channel and the Aa are explained in the second Brabantpark “frame” that we encounter.

The route emphasizes the scenic qualities that the area shows between the Zuid-Willemsvaart and Aa river stretches.

Near Haghorst (route example 3)

To the west of Haghorst we are going to start our next route from the Wilhelmina canal, where we get to know a canal in a Brabantpark-frame that has never been built towards the south (Wenting, 2011). We descend the canal dike and go through the open production landscape towards the river Reusel. Cross this at the petting zoo and then, following a new walking path, we follow the meandering river back towards the canal. Towards the canal, we can see how much higher the canal is in relation to the landscape and that the river Reusel passes underneath the canal. (Kerkhof, 2018) The “frame” that we encountered at the river bridge has informed us about this before.

From the canal, which forms the constant in Brabantpark, the route runs to the special feature of the landscape room. In this case the room is a river valley and the special feature is the river that formed the room.

Tilburg, small Brabantpark

In Tilburg the canal cuts through the city, but it also connects the city. It is not a channel, but like the rest of the canal system it is a park and part of Brabantpark. Here consisting of two river valleys, a forest area and the zones where the city has withdrawn from the canal in various ways. When we walk the park completely we recognize the canal industrial ports, that form an interruption in the new Brabantpark organic watersides with adjacent street profiles and public spaces that introduce a new openness and separation between public and private, so that residents now live in the park instead of the street that happens to be along the canal.

Brabantpark connects itself with the urban zones perpendicular to the canal by making existing routes recognizable, breaking through barriers and softening with a reduction in planting and the introduction of gradual differences in height. In the length, Brabantpark contributes to the unity of the city by forming a recognizable continuous park connection the various urban zones.

Brabantpark facilitates the citizens' initiative Sportkanaal Tilburg, which links the sports facilities to the Kanaalzone and respects the rebuilding and widening of the locks 2 and 3 to the economic value of the canal. (Straaten, 2017) (Greef, 2015)

Living on a green canal

From the center of Tilburg we walk towards the Wilhelminakanaal, accompanied by the recognizable materials such as metal, cobblestones and ship boulders that run into Brabantpark. Arriving at the canal we are on a Brabantpark industrial waterfront jetty and we look out over an urban Brabantpark landscape and recreation trails with pastures, wetlands and Sportkanaal routes.

The Brabantpark green structure will be continued on this part of Brabantpark in the form of an ecological park with wadi's linked to the canal through which the original paths run on their original height level. By cutting into wadis and Brabantpark places, subtle differences in elevation arise with wet and dry proportions, making the public space more diverse and larger in perception. The example zone “Living on a green channel” is built up in three design layers. The basis is laid by the landscape of wadis and the organic Brabantpark banks. The landscape is made accessible by a route network that in the south focuses on continuity, direct connection to the sports facilities and the relationship with residential areas. Materialization is industrially related. In the north, the relationship between Brabantpark and the residential area is by the introduction of a fine-meshed informal stray network between and through the wadis. The places give function to the routes and the landscape. The south is sport related with space for,

for example, running, cycling or Nordic walking on the trails and fishing, viewpoint and recreational mooring on the places. In the north there is space on and between the paths for walking and playing. The places are arranged as relax and picnic spots along the canal.

Financing and phased introduction

Brabantpark is not a park for Brabant, but from the Brabanders. Along, in and around Brabantpark we encounter agricultural recreational and tourist functions that partly finance the Brabantpark routes and in this way finance and maintain their own connection to Brabantpark. With this, these local participants create Brabantpark.

Local entrepreneurs, residents and municipalities build Brabantpark, coordinated and co-subsidized by the province and the government as a stimulation fund. As a result, Brabantpark is growing at the pace of the local Brabant recreational economic pace.

Concluding, Brabantpark in layers

The ambitions, opportunities and consequent objectives that form Brabantpark can be summed up in three layers, landscaping (the base layer is approached from the water and channel perspective), route layer (channel and landscape leave their autonomous state and connect with the local environment) and functional places (goals and destinations with Brabantpark secondary use).

Landscape layer (ecological mechanism)

The canal system of Noord-Brabant is not a channel system, but it is the longest park in Brabant that connects urban centers. The introduction of organic banks also creates a robust ecological connection between river valleys and wooded sand ridges.

Route layer (transport and accessibility mechanism)

This newly defined park will accompany a Brabantpark route structure. This consists of a transport system that uses the cargo ships and has hop on/hop off places, where the ships have to wait for bridges and locks. From these intersections there are expandable routes that circle for an hour each by bicycle or on foot along the canal and emphasize to the subject of the landscape room in which they are located.

Functional places layer (use mechanism)

Nevertheless, the park is not only functionally a route structure, but also forms a new recreational vehicle for the Province of Noord-Brabant. This park function creates unity in Brabant and its cities. It brings accessibility and recreational value to quiet Brabant landscapes while it introduces rest and space in the Brabant cities in the form of a ribbon park.

Brabantpark is using existing qualities for a new recreational main structure in North-Brabant.

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Introduction

Themes like the resilient and sustainable city are currently attracting a deserved amount of attention in media and urbanism related literature. Within this scope the relation to heritage is what tricked my interest and curiosity. The reintroduction of neglected or muted urban harbors and canals in the city, combined with the motivation to use them as a modern version of themselves, is what I define as nostalgic motivated developments. A historical experience is introduced at a location that has lost and forgotten this part of itself.

In 2009 STOWA (Stichting Toegepast Onderzoek Waterbeheer) published the report “Water terug in de stad” (Water back into the city) (STOWA (Stichting Toegepast Onderzoek Waterbeheer), 2009). In this report STOWA made an analysis of urban water projects. Part of the analysis was an assessment of motivations concerning the development of these water bodies. Furthermore, STOWA mentions 15 inner city water projects, including singles, canals and ports, that are reintroduced in a way that I define as nostalgic. Out of the 15 projects there are 10 that state their main motivation as nostalgic while climatological motivations come second. There are only 5 projects that push a climatological motivation forward as most significant (STOWA (Stichting Toegepast Onderzoek Waterbeheer), 2009).

The current issue concerning water storage in Dutch inner cities occurs in dozens of Dutch cities with a potential damage of 71 billion euros in 2050 (Meier-Boschaart, 2017). This is not only an economic or technical issue, but also an assignment towards urban design. By first mentioning the nostalgic motivations for returning water space into the city center, a historical memory is linked to climate adaptation in experience, but this connection is not communicated with the final design.

As said before, reintroduced ports are aimed towards historical and economic goals and experiences. Therefore they are in line with the nostalgic motivation of development. In Drachten, for example, the canal functions firstly as a shipping lane and secondly as a water-storing facility. The canal and harbor in Hoozevee is an example of urban water fully focused on the climatical aspect of rainwater drainage (STOWA (Stichting Toegepast Onderzoek Waterbeheer), 2009). The combination between nostalgia and climate adaptation has been discovered in both Drachten and Hoozevee. Although combining functionalities is a well-known practice in cities, the principal is not yet very common in the trend of reintroducing urban harbors and canals. This thesis is aimed towards the connection between nostalgia as a spatial design principal

and the solutions we seek within the creation of a climate-proof city center.

Main question

This thesis consists of two research directions in which the motivation of reintroduction of inner-city harbors is approached by interviews and factual research. The main question is situated in the connection between the climatic necessity of space for water and the nostalgia that exists around a potential development location. On the one hand, the meaning of nostalgia around the restored ports and on the other hand the climatically relevant challenges.

Nostalgia

General history

Around 1165 the first, illegal dam was raised in Rijnland (Rhineland) by the Graaf van Holland (Count of Holland) to keep the city of Leiden dry. However, as this embankment caused water issues in the city of Utrecht a discharge channel was dug in 1200 to drain the overflow of water in Leiden, and the original dam was removed. This climatologically motivated excavated canal is the Zijl and it is still draining the excess water around Leiden today. (Schevehoven, 2015)

King Willem the first (king of the Netherlands from 1813 until 1843) received the nickname Canal-king (Graaf, 2010). He earned his nickname because of the canal and land creating projects he undertook. His main motivation for these projects were economic and aimed at mobility. King Willem the first is seen as the first capitalist of Europe (Ahlers, 2015). The canal network was mainly based on military canals initiated by Napoleon and the Spanish for military reasons.

Around the Industrial Revolution, the canals and therefore the inner-city ports experienced its heyday in the transportation for the textile industry. After the war, industrialization and car ownership increased thus increasing the amount of spatial pressure on harbors (source 6). Besides spatial pressure, the new industrialization worsened the environmental situation of the harbors. The inner-city harbors were becoming more and more of a problem.

Starting in 1965, governmental institution began to look differently at the pollution of the surface water and started actively acting on water quality management. Around this time surface water smelled bad and oxygen levels in the water were low. Initially municipalities started with the purification of water themselves, but from 1967 the Water

Board (waterschap) took over this task. By 1970 the law on pollution of surface water (WVO, Wet Verontreiniging Oppervlaktewater) was adopted. The treatment of surface water created a new interest for watersides and the water itself as a place to live or to enjoy as a recreational space (Schevehoven, 2015).

The concept of nostalgia

In the general history a 360 degree turn can be observed. Initially there was a strong economic and mobility connection to water. After the Industrial Revolution the harbors became a problem in city centers. Then in 1970 inhabitants and municipalities started to turn their back towards the water.

The reintroduction of old harbors is an integral part of the location's readability, Thomas Jansen (landscape architect) states. With this statement he makes the connection between the history and the current shape of the urban environment.

The location tells its story with the ingredients that can be seen and found. For all visitors this story is individually definable and connected by associations and memories. These memories can be nostalgia, the feeling of having lost something dear. Exactly how dear the memories of a harbor are, taking the history combined with possible association in account, remains unclear.

Adriaan van Mierlo (former member of Dutch parliament) is critical about the likability of heritage and its value. He states that most of heritage or reintroduced heritage is in fact false nostalgia. The harbors were, similar to the stinking factories from the Industrial Revolution, unpleasant places. Working conditions and the places themselves were unpleasant. So there is nothing to think back to, we have learned and evolved.

Naturally we don't need to keep or restore everything old, but there is quality in nostalgia that should find its way into design.

Besides Thomas Jansen, Marco Visser (chairman Coöporatie Vertrouwen) is also convinced of the quality in nostalgia. In the case of Marco Visser, this concerns a sailing ship that contributes to the location. For example, the art piece representing a ship in the former harbor of Sommelsdijk is a hint to the nostalgia of the location.

Erfgoed en erfgenamen (Provincial heritage program) connects to the idea of hinting to the nostalgia of the location, but only if it contributes to the new use. Erfgoed

en erfgenamen defined the value of heritage is in its heirs, with heirs being its new users. (Brabant, Erfgoed, 2014)

In conclusion, it can be stated that in this case form follows function, in which the form is inspired by the nostalgia of the place. Here, the conversation or memories of visitors form the definition for nostalgia or false nostalgia.

Climatological influences

Overview of urgencies

Urban environments have to apply to new climatological standards. More rain and drought are predicted, for longer periods and with more intensity. Dutch weather institution KNMI makes it prediction for the increase of rain in two directions, a worst case scenario and a best case scenario. The predictions for 2050 range between +5% and +27%, for 2100 the predictions go between +10% and +54%. (KNMI The Netherlands).

Since the Middle Ages the ground levels in the western part of the Netherlands have been declining. The creation of new agricultural fields, peat digging and the creation of new land in water has lowered the grounds. Moreover, there is the climatic change prognosis the sea level will rise (maximum) 85 centimeters with heavier and longer rainfall. Climate change and the effects of ground altering has water nowadays reclaiming the space that it was deprived of in the last century. (Brinke, Deen, & Groen, 2008)

The disappearance of visual water bodies in urban environments has supported alienation by people. This alienation leads to unconscious behavior and the waste of clean water, and the loss of appreciation for potential qualities and natural values. (Pötz & Bleuzé, 2010)

In four centuries we as humans went from worshipping water and connecting it with spiritual powers to seeing the water as a tool, a transportation and recreational medium. Technical and economical thinking composes our interaction and the attached values given to water. Rethinking our connection to water can lead to a different and more conscious relation to water. By giving the status of water room to emerge in public space, the conscious connection to water returns and water is once again able to communicate and connect to humans in a visual manner. (Pötz & Bleuzé, 2010)

The main assignment for urban water management is the protection of urban areas against overflow damage and dehydration. Storage, buffering and slow export of water have to be included in design of the public space

and can be combined with other functions like playing fields, squares, park areas and other recreational and functional uses like harbors. These designs can function as a rediscovered connected element between the inhabitants of an urban environment and water. (Pötz & Bleuzé, 2010) The strategies connected to this main assignment are formulated in the national water plan. This plan connects water management to the design of urban spaces. Every new design is accompanied with a water test, as an analysis showing the risks and solutions needs to make the newly designed development sustainable. (Slumpe, 2008)

The concept of Multifunctionality

A system, connection, place or element can carry multiple functions at the same time. This also came forward surrounding nostalgia in the STOWA report in the introduction (STOWA (Stichting Toegepast Onderzoek Waterbeheer), 2009). These combined functions can vary greatly by function or magnitude. In case of the reintroduction of harbors in the city center the spatial aspect, the experience of nostalgia, and the economic, social or climatological function can form the location in collaboration with each other. This is in line with the book Reinventing Multifunctionality (Netherlands Enterprise Agency, 2016), which indicates that different functions can reinforce each other leading to a final design.

Example case study

The Apeldoorn canal was dug in 1868 between Apeldoorn and the IJsselmeer for 52 kilometers parallel to the river IJssel. Between 1968 and 1961 the canal was in use for shipping, especially smaller ships preferred the channel above the river. Nowadays, the canal and its port are inactive as a shipping route. Instead, the canal is active for the discharge of water towards the IJssel. Multiple “sprengen” (rivers) flow from the Veluwe into the canal. It is an integral part of the water management and therefore, among other places, keeps Apeldoorn and Heerde dry. Because of this, the channel is respected and has not been closed or muted as happened with the Eindhovens canal. The foundation Apeldoorns Kanaal has the ambition to reopen the canal (Stichting apeldoornskanaal, 2017) in its current form for shipping. The ambition is not to dig or re-open a new harbor, but rather to embrace a historic inner-city water body by adding an economic and mobility layer of use on top of the current climatological use. The historical harbor is a form added on top of the existing water body. The original towpath besides the canal is used as a bicycle connection and the canal is maintained.

In the Apeldoorn channel, climatological functions, nostalgic functions, economical functions and recreational functions are combined in the multifunctional use of the heritage.

Conclusion

Climatological motivations are more than once the secondary point in communication and motivations for the redevelopment of inner-city ports. Then again, there are examples such as in Apeldoorn, where functions are added on top of the main climatological function. Documents like the STOWA report “Water in the city” show that this is not always the case.

The nostalgia with the historical readability of the place and the associated memories are part of the discussion. After all it is questionable whether a place with an industrial past is a place to remember. For all visitors the nostalgic story is individually definable by associations and memories, despite the question as to whether a place with an industrial past is a place worth remembering. Nostalgia and the historical forms of a location can be used as a design tool for the location filled with a contemporary program that answers to modern questions.

Climatological problems in the inner cities form, for a considerable part (source 2), the interpretation of the contemporary program concerning public space. New urban water such as the inner-city harbors are also part of this climatic program.

By setting the climatological motivations for the reintroduction of an urban port as a primary motivation before the wish of reintroduction the developer is not only honest with respect to the (potential) user, but also empowers the creation of awareness.

Awareness that gives an idea of the sizes in which municipalities and other authorities are working on the assignments concerning the creation of a resilient and sustainable city. Therefore, I propose to prioritize the climate as a necessity for the construction, the form in which the need is answered can then be nostalgic with an economic interpretation. Three layers for each port, 1, in the water, 2, on the water, 3, around the water.

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BrabantPark!!, introduction assey (first draft)

Brabant

For every human being the balance between “fastlife” and “slowlife” is important.

The social debate is the tension between “fastlife”, the busy and fast urban and economic world and “slowlife”, the way of living in nature and agricultural areas, where people recreate and pay attention to each other, the environment and the experience. The most interesting aspect of this discussion is the contrast between the two worlds in low threshold, individualization and the need for deepening.

The Brabant canals form a network between the biggest cities of North-Brabant that are collectively named Brabantstad (Helmond, Eindhoven, ‘s-Hertogenbosch, Tilburg and Breda). The channels form an autonomous man-made water structure, that is only used economically. In addition to economics, the channels offer cities space and a direct relationship with the environment around the city. “Slowlife” is guided inside the cities. Ships are slow moving and the water is nearly still. Unfortunately, the channels are not yet seen as a direct quality of peace and space (slowlife).

The Province of North Brabant seems to forget its channels in visions and ambitions, but it does develop them. Millions are being invested in the channels for the benefit of the network as an economically viable connection. The contrast in provincial documents is that the channels are recognized as recreational connectors, but nothing concrete is done with them. Great potential is lost here!

Walking and cycling are the most popular outdoor sports in the Netherlands. These in relation to the weather and the seasons are an integral part of the recreational experience of “slowlife”. According to hikers, North Brabant after South Holland is seen as the least attractive hiking province. Mainly the Brabantstad cities are having a shortage of possibilities. Brabantstad needs a Brabant park.

There are two types of channels in Brabant, river-related-channels (the Zuid-Willemsvaart follows the Aa) and elevation-related-channels (the Wilhelminakanaal). The two largest canals are mainly built with dikes on the landscape. The Wilhelmina Canal traverses the landscape over stream valleys. The Zuid-Willemsvaart has a strong relationship with the valley of the river Aa.

Brabantpark!!

By strengthening the existing ecological qualities with natural banks, the water is involved in an ecological connection. A connection that conforms to the principles of “slowlife” towards the cities in Brabant. An intervention in the length of the channels is significant for the width, because water, waterfront and city now develop an organic relationship.

The routing of Brabantpark is based on the possibility to be able to build laps of one hour to more than one day trips. Every bike and walking route makes a circle of about an hour, that is connected to the next circle (individualization, create your own route). Cross-roads arise on industrial relics including bridges, ports and locks. Each circle illustrates the relationship between the canal and its surroundings in the landscape spaces (deepening, learning and experiencing the landscape).

By developing in three phases support and creativity can be unlocked. In addition to the creation of natural banks, in the first phase, the knots and routes are recorded in signposting and road surfaces so that the routes are accessible to everyone. In the second phase, we will use the clean and widened water (because of the natural banks) for the city as space for recreation, climatological objectives and new forms of living. In the third phase, the canals and Brabantpark are available for spin-offs in the agricultural area where the relatively high water is extended and can be used for double land use and against drying out land.

Brabantpark, a new structure for Brabant that brings cities, nature and recreation closer together.

BrabantPark!!, Sources and experts.

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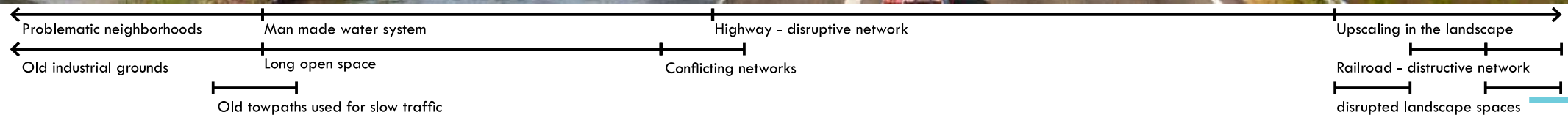
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Disrupted spaces

Introduction



Current situation



Introduction

A train passenger or a car passenger looks outside the window and sees the passing landscape, the spaces that his manner of transportation cuts in half or creates. The passenger is a witness of a different world in opposite of what the driver sees. The drivers view is along the upcoming route. Wat can be a passenger or what can travel along and benefit of human man mobility aimed systems in the landscape.

In this document named "Project specs" is a analyses of the relation between the networks connectivity and the landscape these systems pass through. The relations between the drivers view and the passengers view.

Motivation

Personally I have always been fascinated by contrasts in urban and rural environments. The big machine world, highway or train tracks beside the "vulnerable" landscape. Between these fast connections I discovered the water connections. The long spaces, the slow speeds and size of the ships that made them someone's slow traveling world.

Thesis (connects to the photo-collage)

In the landscape there are two types of networks. Disrupting networks like the train or a highway, noisy and fast. Non-disrupting networks like high voltage cables and water connections, quiet and constant in present like the cables of slow moving like ships on the water. The non-disrupting networks

are often misjudged ass networks to stay away from. We live close to rail-roads with the noise but we keep distance from canals for example.

The non-disrupting canal network in Brabant, is an underused open space. Other infrastructure is prioritized and conflicts with the potentials of the network. Cities have turned there back to the canals with old industrial zones or wide barriers between neighborhoods and the canal. But the canals are better than this, have more quality to offer then cities and the landscapes except at this moment. This non-disrupting network can be a transporter of qualitative connections (recreational, ecological, economical) in its width that benefits the spaces it travels through.

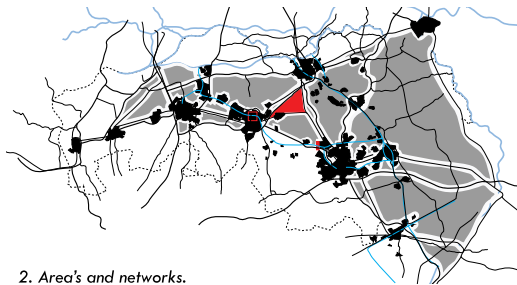
Disrupted spaces

Landscape versus mobility

Historical situation



1. Lintenlandscap Tilburg 1853.



2. Area's and networks.



3. Water and power cable networks in Eindhoven.



4. Soaces between networks. Between urbanisation (black) and natural forest (green).

Mosaic of rooms (area's)

Ribbons connected the villages and smaller settlements to each other forming spaces in the landscape here defined as rooms (picture 1). This texture of routes and rooms would develop itself between the rough areas that where unused because of the geological characteristics of the landscape. For example these area's would be to dry or have too much sand to use as agricultural grounds.

This landscape was small scale in spaces and urbanization.

Mosaic of rooms and spaces (area's and networks)

Scale enlargement has overtaken the landscape and introduced new layers. This had started around the industrial revolution and has become part of the landscape. The connections between cities and network nodes has introduced spaces in the mosaic of the landscape (picture 2). The smaller rooms can still be found inside these spaces as seen in picture 4.

Disrupting and non-disrupting networks (area's, networks and relations)

The reaction to networks (Disrupting and non-disrupting) can be summarised in the above 8 situations varying from the urban to rural environments.

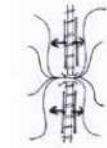
In the urban environment the canals are mostly treated as a disrupting network. In rural area's the canals are treated as non-disrupting. This can be seen in the example in picture number 3. The urban texture is kept at a distance of the canal where that the landscape connects directly to the waterside.

The scheme (picture 5-12) shows the occurring relations between networks and there context in principals.

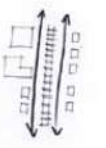
Landscape

Urban

disrupting



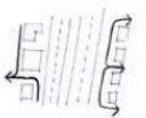
5. Traintracs form a barrier in the landscape.



6. Urban structure comes up close to the train tracs.



7. The width and noise of a highway makes the landscape turn away.



8. Cities present themselves towards the highway but there is no direct spatial connection.

non-disrupting



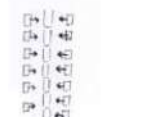
9. in spaces and texture the landscape continues around the canal.



10. Bigger canals make urbanisation turn away from it.



11. landscape continues uninterrupted underneath the high voltage lines.



12. urban environment continues underneath the high voltage lines in the form of a park.

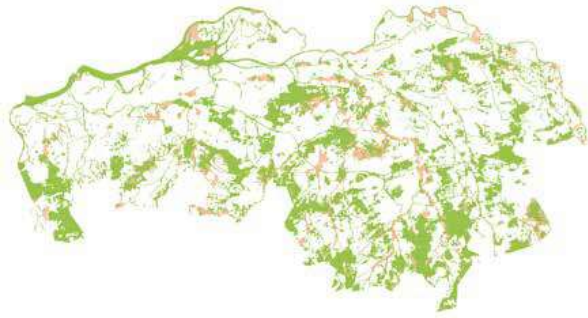
Disrupted spaces

Developments

Landscape environment issues

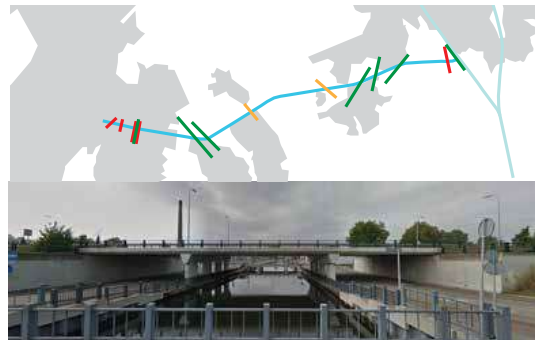
Regional scale developments

Area's 1, National Nature Network



The current NNN (National Natural Network) (green) is scattered around the province without a clear structure. Combined with the future ambitions (orange) The network becomes a more connected. Ecological quality for natural area's is valued by content and connections to other natural areas. Migration of animals is vital for the existence of the current livestock and its reproduction.

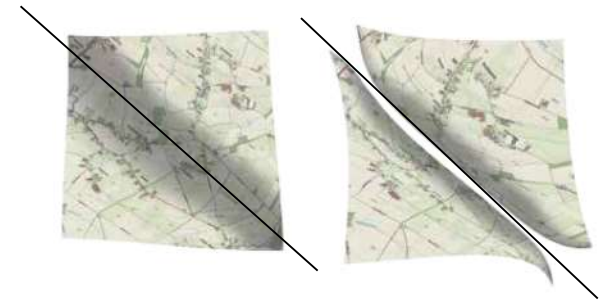
Networks 1, conflicting junctions



Networks connective capabilities are defined by the capacity of the connecting elements. In this example case the bridges spanning over the Eindhovens canal are lowering the capacity. A small inland cargo ship needs at least 4 meters of height clearance. Green is 4 meters, orange is 3 meters and red is 2 meters of clearance.

Local scale developments

Relations 1, hate or ignoring



This is connecting to the statements on page 2. because of the increasing pressure on existing networks more of these will become disrupting towards there context.

Urban environment issues

Area's 2, new space for living

Tot 2030 nog 120.000 woningen nodig in Brabant

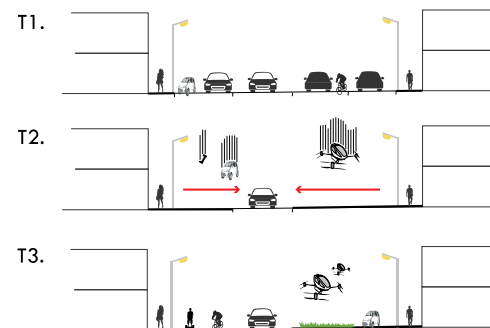
31-05-2017 | Bouwen en wonen | 5 reacties

Om de bevolkingsgroei te kunnen opvangen moet de Brabantse woningvoorraad tot 2030 nog met 120.000 woningen groeien. Daarbij komt dat de vraag naar woonruimte -door vergrijzing en een toename van het aantal eenpersoonshuishoudens- ingrijpend verandert.

The title is translated as: Until 2030 there are 120.000 new houses needed in Brabant.

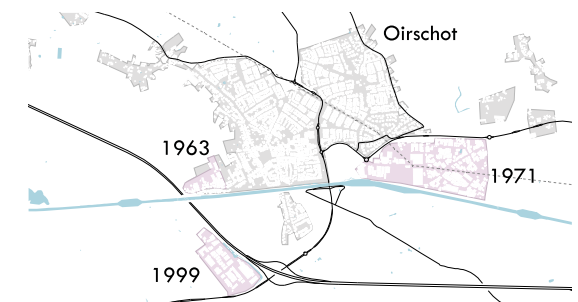
The text translated: To accommodate the population growth 120.000 new houses need to be added before 2030. Besides population growth there is an increasing need for small houses for one person households.

Networks 2, new types of mobility



Pressure on the existing streets and roads will increase. Besides an increase in existing manners of transportation there will also be the need for new types of transport. for example drone deliveries, fast electric scouters and hoverboards.

Relations 2, Old fashioned



This is connecting to the statements on page 2. because of the increasing pressure on existing networks more of these will become disrupting towards there context.

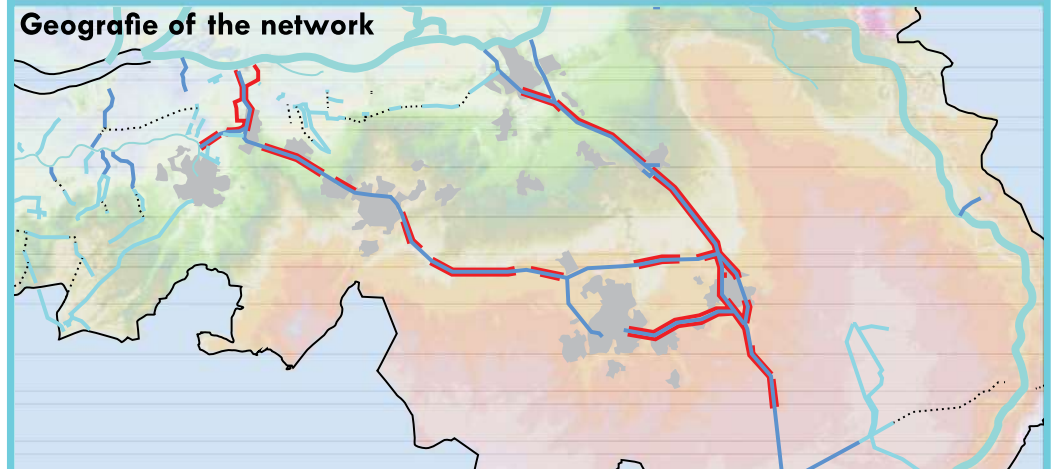
Disrupted spaces

Canal network

Components of the crosssection

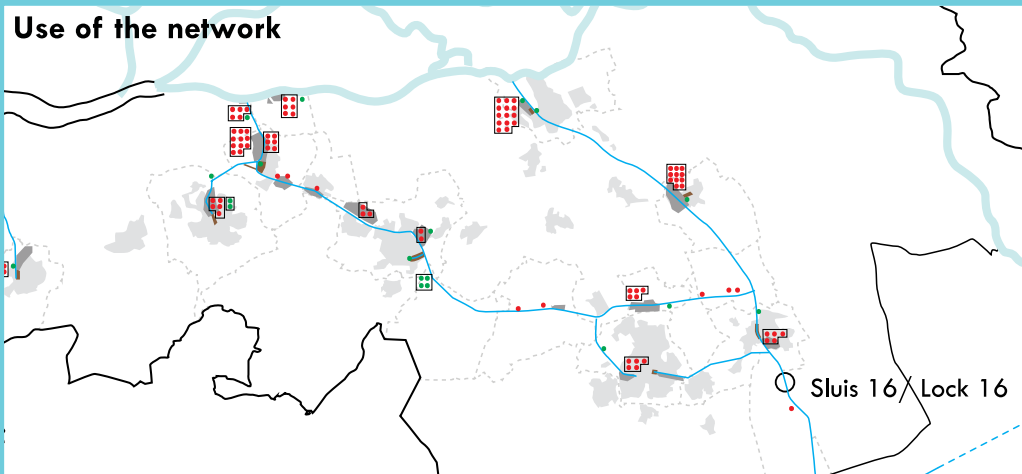


Geografie of the network



Red lines are representing dikes around the canals. This is a representation of how the canals are situated in the landscape. Most of the canals are situated higher than their contextual fields. This means that the canals are on top of the landscape instead of only dug in. Settlements are commonly built on higher ground so there are no dikes needed.

Use of the network



Compared to a relatively small river like the Maas (15613 commercial ships every year). The canal network in Brabant is relatively quiet. At the location of Lock 16 2728 commercial ships pass every year. 93 companies (red dots) are actively using the canal network.

Statistics of the network



436 km canal in North-Brabant total

Zuid-Willemsvaart: 123 km long
Wilhelminakanaal: 68 km long
101 km is in urban environment

Both these canals were initiated by King Willem I (1813) to benefit the local economy.

Generally 2,9 meters deep
(between 2 and 4 meters)

Total amount of water in canals:
30.520.000 m³ space
30.520.000.000 liter water

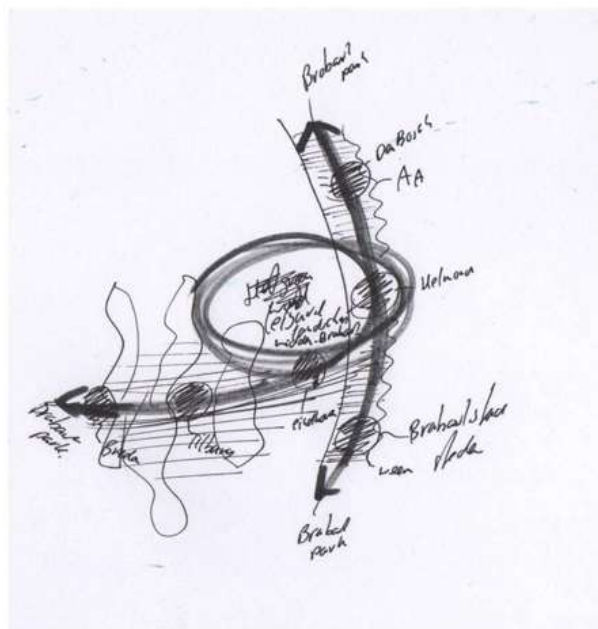
Vergeten kanalen

Provincie noord Brabant is haar kanalen vergeten in haar visies en ambities maar ontwikkeld deze wel. Er worden miljoenen in de kanalen geïnvesteerd ter baten van het netwerk als economisch rendabel poort-to-poort verbinding, vergelijkbaar met een metro-systeem. Op economisch en handelsvlak worden kanalen ingezet maar verder word het potentieel genegeerd.

Het contrast in de provinciale stukken is dat de kanalen worden herkent als recreatieve verbinder maar hier word vervolgens concreet niks mee gedaan. Er word wel gesproken over de ontwikkeling van "het groene woud" en de "Loonse en drunnen duinen" als Leisure gebied ter baten van het ontwikkelen van een aantrekkelijke vestigingsklimaat voor Brabantstad (de vijf grootste steden van Brabant).

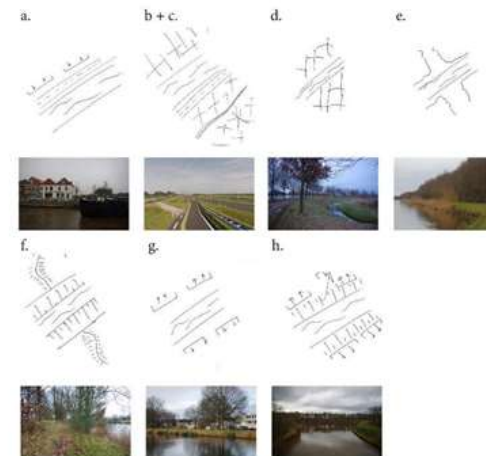
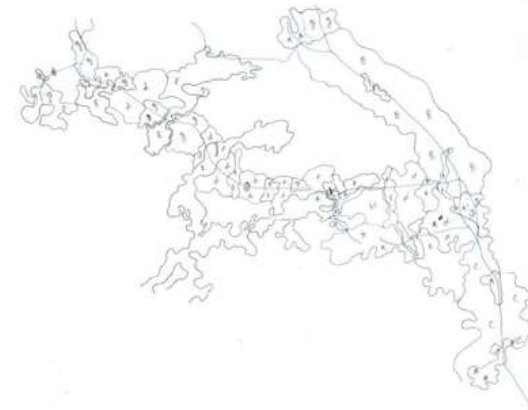


Al het bovenstaande word in twee lijnen met elkaar verbonden door de kanalen te betrekken. De kanalen vormen in mijn ogen de missende factor die de ontwikkelingsambities van midden-Brabant tot een Leisure landschap verbind aan de ambitie voor het creëren en versterken van een aantrekkelijk vestigingsklimaat in de steden van Brabantstad. Voor een prettig woonklimaat in wijken en buurten word er ruimte geboden aan parken en groenstructuren die integraal deel uitmaken van de ontwikkelde stedelijke weefsels. Brabantpark is het groene/recreatieve netwerk dat integraal deel uit moet maken van het vestigingsklimaat van Brabantstad en tussengelegen kernen.



Brabantpark

Door het langgerekte karakter van het kanalenetwerk (Brabantpark) is het een verbinder van gebieden. Onder meer "het groene woud", "loons en drunnen duinen" (ecologische en recreatief), "Brainport-oost" (economisch) en de steden van Brabantstad (wonen). Maar ook op kleinere schaal doorkruisen de langgerekte lijnen gebieden met een eigen identiteit en opgaven. Voornamelijk het Wilhelmina kanaal heeft een gesloten karakter en kent veel contrasten, de Zuid-Willemsvaart ligt open in het landschap gecombineerd met andere infrastructuur in het rivierdal van de Aa. In Brabant is het namelijk zo dat de rivieren door agrarisch landschap stromen en de non-cultivated gebieden op de ruggen tussen de rivieren in. Omdat de Zuid-Willemsvaart de Aa volgt is diversiteit in de context minder groot rond dit kanaal dan rond het Wilhelminakanaal dat voornamelijk de hoogtelijn volgt. De hogere gebieden in Brabant zijn zanderig en de lagere gebieden rivierklei (Brabant kan gezien worden als de zuidelijke stroomdal zijde van maas en rijn). Voor de kanalen betekent dit dat ze gegraven zijn in zand en gebouwd op klei.

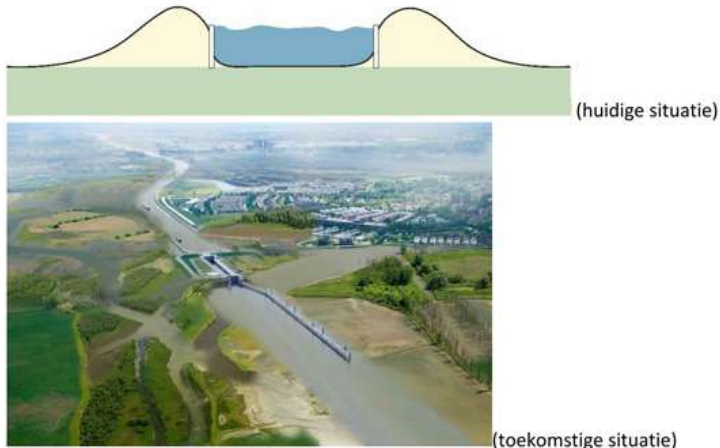


Brabantpark adresseert 4 typen uitdagingen

De parameters grondsoort, hoogte, water en ruimte omkaderen de 4 typen uitdagingen die Brabantpark adresseert. Deze uitdagingen laten zich het beste illustreren door een voorbeeldlocatie.

Type 1 (Haghorst) >aquaduct<

Kanaaldijken plaatsen het water hoger dan de omgeving waardoor er een aquaduct ontstaat en de kanaal ruimte (en het water) een man-made autonome network word.



Haghorst is een plek waar dat het kanaal boven haar context stroomt (een meter aan de zuidelijke zijde en 1,5 meter aan de noordelijke zijde) met dijken die de overgang van kanaal naar gebied blokkeren.

Type 2 (Tilburg) >autonome water transportation network<

Het kanaal is en was altijd een industriële verbinder met grote vaartuigen die er de dienst uit maken. Een machine space waar de stad in heden en verleden onterecht haar rug naartoe keert.



Tilburg is een stad gebouwd op zand waar dat de overgang van het water naar de stad relatief vlak is. Door het industriële verleden van de stad en de vervoersas, het kanaal, heeft de stad haar rug gekeerd naar het water en zich gedistantieerd van het kanaal. Door deze houding word er ook afstand gehouden van de kwaliteiten rust en ruimte die de kanalen vanuit het agrarische landschap mee de stad in nemen.

Type 3 (Veghel) >new rivier<

Het kanaal beconcurrereed de originele maker van het dal en claimend de ruimte met aanwezigheid maar zonder iets te bieden. In het gebied tussen de oorspronkelijke rivierloop en het kanaal ontstaat een spanningsveld dat in staat is een belevingsgebied van de vallei ervaring te worden.



Veghel is en stad tussen rivier en kanaal. Een doorsneden van het dal van de Aa toont het spanningsveld waar Veghel in ligt. De Zuid-Willemsvaart is op de westelijke rivierdal helling gebouwd. De spanning tussen deze twee waterlichamen komt in de stad naar boven in de vorm van een dubbel niet verbonden centrum. Aan het einde van de haven ligt een centrum en op de originele plek waar Veghel langs de rivier de Aa is ontstaan ligt een centrum. De Hoogstraat is de plek waar de karakteristieken van deze waterlichamen onzichtbaar samenkomen. Door dit spanningsveld zichtbaar te maken ontstaat er een verbinding tussen de centra. Een lang gekoesterde ambitie van gemeente Veghel.

Type 4 (Best) >diep dal<

In de hoger gelegen zandvlaktes van Brabant zijn de kanalen relatief diep ingegraven. Hier varen de schepen en stroomt water diep onder het stedelijke weefsel door. Het word door dichte bebossing omringt wat ervoor zorgt dat er een donkere onderwereld ontstaat met alle sociale veiligheidsuitdagingen samen.



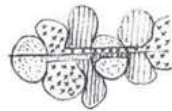
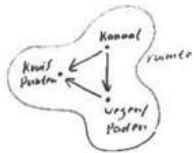
Huidige situatie

Best ligt op een relatief hoog zand plateau voor Brabantse begrippen. Dit betekent dat zowel het Wilhelminakanaal als het Eindhovens havenkanaal (Beatrix kanaal) diep uitgegraven zijn in dit gebied. Doordat het kanaal diep ligt en door dikke begroeiing omkadert is ontstaat er een nadrukkelijk aanwezige barrière in de vorm van een onbehagelijk zone rond het kanaal. Bewoners geven aan dit stuk kanaal te vermijden ondanks het recentelijk aan gelegde snel fietspad tussen de bomen.

Het perspectief

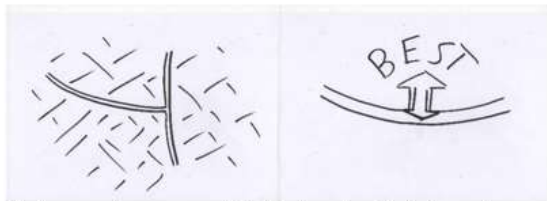
Denkend vanuit het perspectief van het water kijk ik de ruimte in die Brabantpark is. Daarbij maak ik gebruik van de wegen die gerelateerd zijn aan de kanalen en verbijzonder ik de plekken waar deze

samen komen. Dit biedt de mogelijkheid knooppunten als kruispunten te zien langs de kanalen als linten van het landschap die de verschillende kamers verbinden op ecologisch en recreatief gebied.



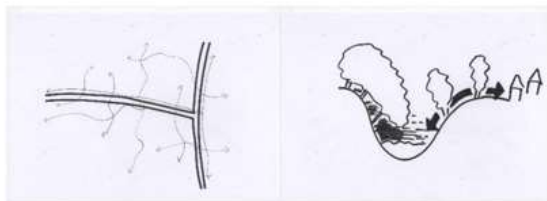
In dit perspectief komen drie lagen naar voren die belangrijk zijn in Brabantpark met hun concrete betekenis voor de situatie in Best, de meest prangende uitdaging omhelst door Brabantpark en centraal gelegen.

Brabantpark waterweg vormt de startpositie van het perspectief en de drager van Brabantpark. Gerelateerde gebieden worden direct verbonden aan de kwaliteiten (rust en ruimte) die deze landschappelijke drager met zich mee draagt.



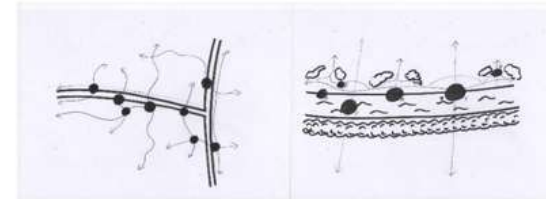
Nu is er sprake van een duidelijke barrière die de kanaal zone een onprettige plek maakt en het kanaal verstopt voor haar omgeving. Door de introductie van een open parkstructuur die de verbinding legt met het stedelijke weefsel van Best wordt het dorp en haar oorsprong opnieuw bij elkaar betrokken.

Brabantpark landroute is de ontsluiting en verbinder van Brabantpark met haar omliggende dorpen, steden en recreatieve attracties en ecologische structuren.



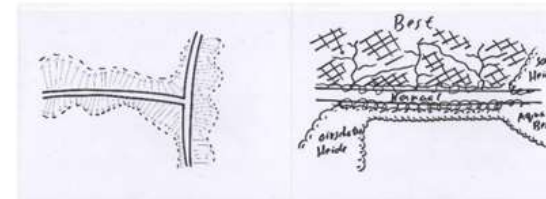
De barrière wordt doorbroken door zonering van de kanaal oevers waarbij de zuidelijke kant haar dichte begroeiing behoudt en dienst doet als ecologische verbinder. De noordelijke zijde wordt ingericht met een open park en paden structuur.

Brabantpark spots zijn de plekken waar de routes samenkomen met de kanalen en de verbijzonderingen langs het waterlint.



Op de plekken waar de routes en het waterlint elkaar ontmoeten door middel van uitzicht, klimaat, historie of direct contact bevinden zich plaatsen waar door middel van materialen en vormen het heden en verleden van Brabantpark en haar landschappelijke karakters en de kanalen beschreven worden.

Brabantpark space vormt de reikwijdte van het park. De ecologische, stedelijke en recreatieve gebieden die met elkaar verbonden worden of de beleavings gebieden van het Brabantse landschap.



In de situatie van Best vormt de ecologische verbinding en de park structuur de geografische gebieden van Brabantpark.

>plankaart<

8 verschillende plekken (2x2x2=8)

Thema tijdgeest, heden en verleden vertellende plekken.

Materialisatie: zand, stof, kiezels, ijzer en roest voor het verleden, zand, beton ijzer en kunststof voor heden

Thema afstand, zicht en aanraakplekken.

Materialisatie: Zand, water, steen, beplanting (hagen en bomenrijen)

Thema klimaat, warme en koude klimaat plekken.

Materialisatie: beschutting in de vorm

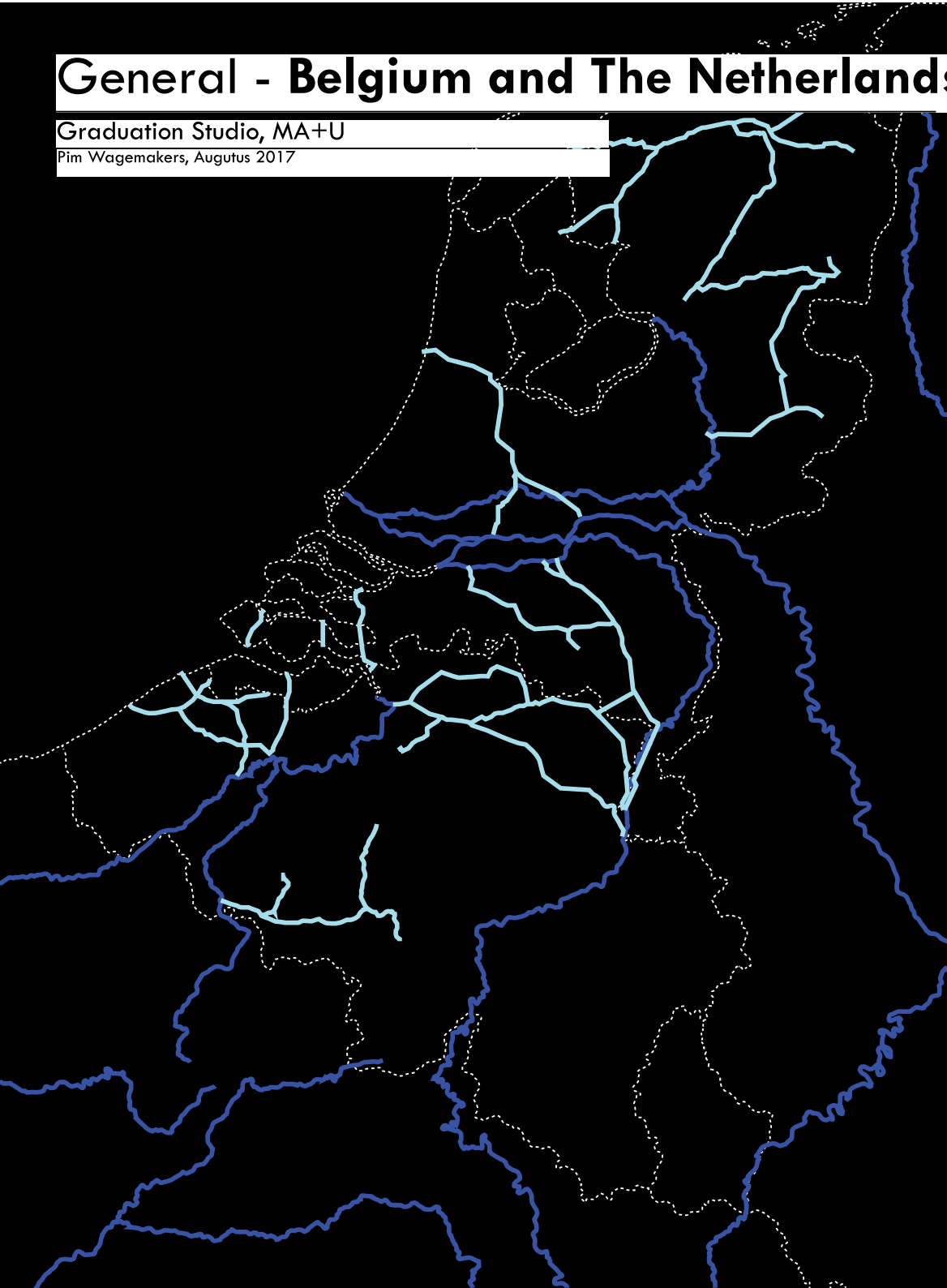
Facination

- Fast life/ slow life
- economie, city and nature
- Full rivers
- economical use

General - Belgium and The Netherlands

Graduation Studio, MA+U

Pim Wagemakers, Augustus 2017



Fascination:

Societal debate in fastlife and slowlife, the contrast.



The subject of societal debate is the tension between fastlife, the busy and fast urban and economic world, and the slowlife way of living in nature and agricultural areas where people recreate and pay attention to each other, the environment and the experience. The most interesting aspect of this discussion is the contrast between the two worlds in low threshold, individualization and the need for deepening.

Canals

Slow
Silent
Fresh air
Save
Not crowded

Roads

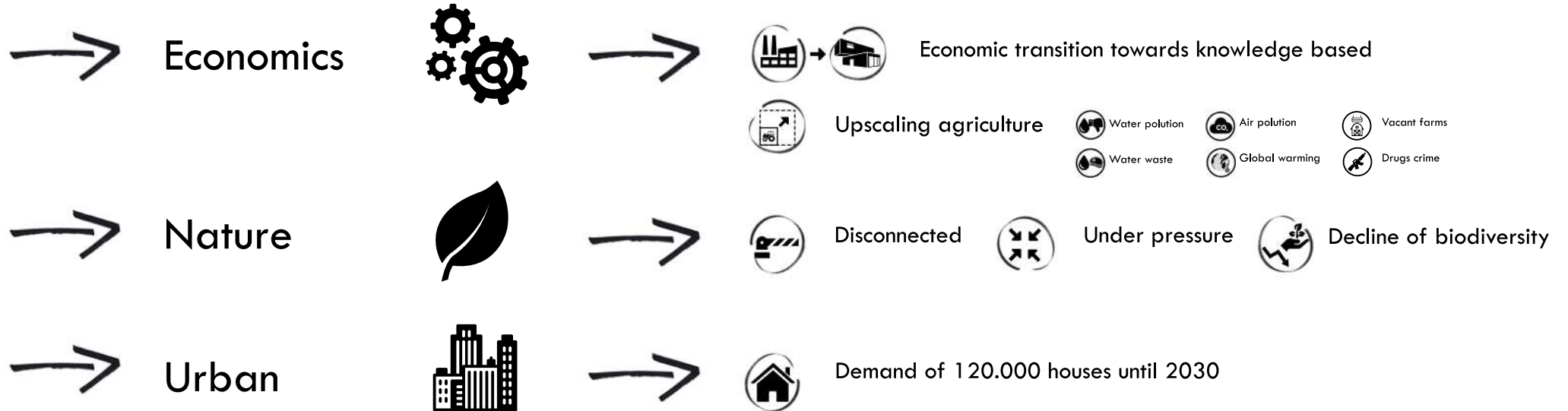
Fast
Loud
Dangerous
Polluted air
Crowded



The canal system is the only system that connects all spatial layers in North-Brabant.

Spatial layers

Challenges



Steeds meer water in de grote rivieren

23-11-2015, 06:23 BINNENLAND



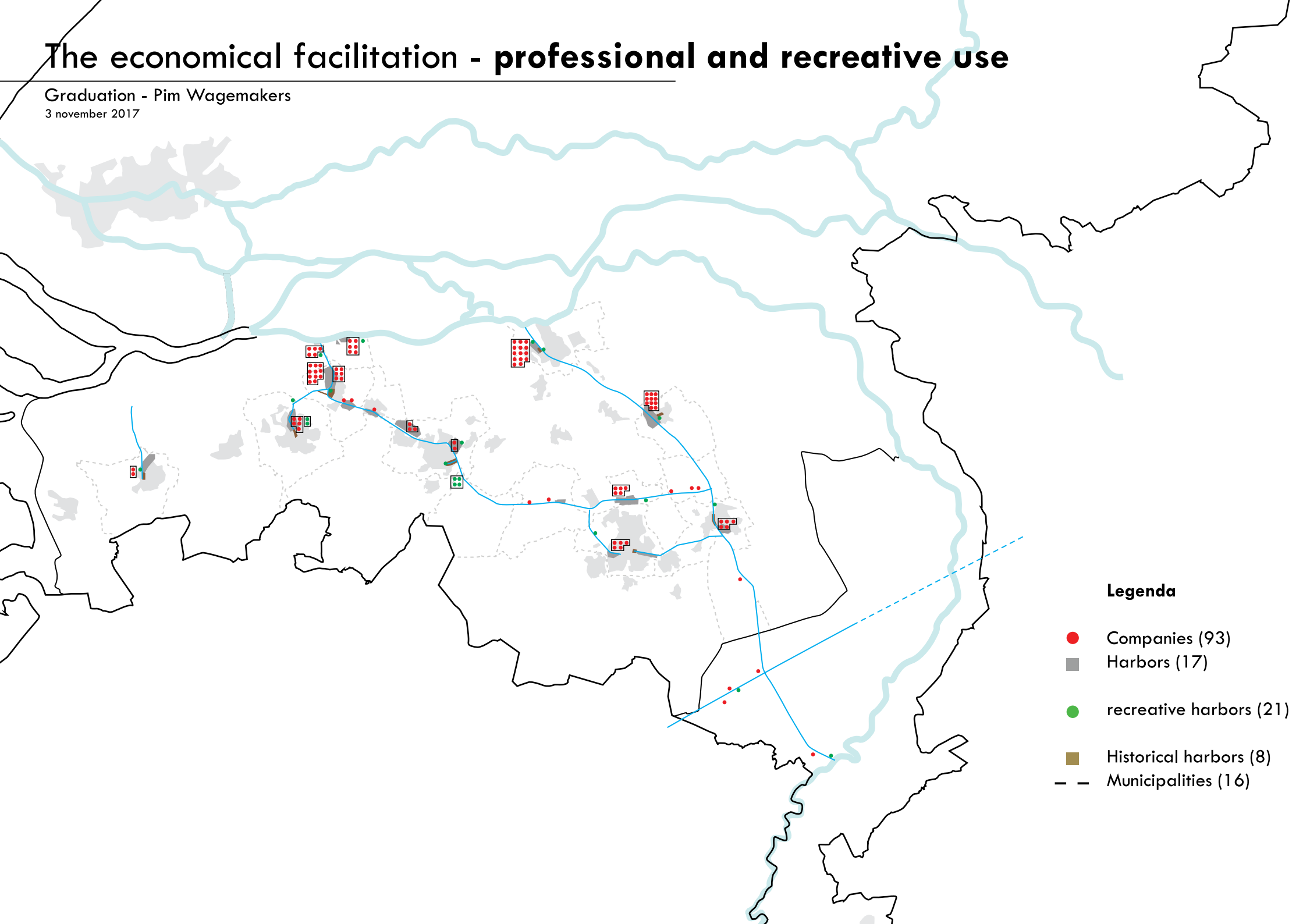
Hoog water bij Lobith ANP

Het waterpeil in de grote rivieren Rijn en Maas kan deze eeuw fors stijgen als gevolg van klimaatverandering. Dat blijkt uit nieuw onderzoek door het KNMI en Deltares.

The economical facilitation - professional and recreative use

Graduation - Pim Wagemakers

3 november 2017



Current use - canal system

On and inside the water, companies and recreative.

27 oktober 2017

Saint-Gobain Weber Beamix B.V.

ABZ Diervoeding

HKS Metals

Mebin

Rendac B.V.

Boerenbond

Voeders BV

Kalle en Bakker

Coppens diervoeding

ForFarmers Hendrix

Bavaria

BouwCenter Swinkels

Holland Malt

A. Jansen B.V.

Baetsen

Van Berkel Groep

Van Nieuwpoort Betonmortel (betoncentrale Veghel)

Mebin Veghel

thyssenkrupp Materials Nederland B.V. (tkMN)

MBI De Steenmeesters

Zuivelcoöperatie FrieslandCampina UA

Victoria Mengvoeders

De Heus Voeders B.V. Locatie Veghel

Inland Terminal Veghel BV

Agrifirm Feed BV - Fabriek Veghel

Heijmans Materieel Beheer

Mebin - Den Bosch Tesselschade

Papiergroothandel W. Box 's-Hertogenbosch B.V.

Beekmans Rvs BV

Asfaltcentrale Heijmans Den Bosch

Heineken Brouwerij 's-Hertogenbosch

Parastone BV

Machinefabriek De Dieze BV

Auto Verschrotings Industrie "A.V.I." Den Bosch B.V.

Van Nieuwpoort Betonmortel

BCTN Den Bosch B.V.

Moonen Shipyards B.V.

De Rietvelden

Bonda

Ferm O Feed

Van Nieuwpoort Groep

KWS Infra

Raaymakers Zand- en Grindhandel

Roozen van Hoppe Groep

Zoontjens

Barge Terminal Tilburg BV

Kemper Keerwanden BV

Eindhoven

Eindhoven

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Pressers Metaal BV

C-Infra bv grondwerk-riolerings-bestrating

Tata Steel Nederland Tubes B.V.

Döhler transport

Struyk Verwo Infra Oosterhout

Oosterhoutsche beton centrale

Lodewikus Voorgespannen Beton (L.V.B.)

Gelissen Beton B.V.

Struyk Verwo Infra B.V.

Martens beton b.v.

Calderys The Netherlands B.V.

Statendam Steel Plates B.V.

Dycore B.V.

Transportbedrijf Jac. Caron B.V.

Container Service C. Groenenboom

Teuben kraanverhuur

Rietveld B.V.

Oct B.V.

ForFarmers (locatie Oosterhout)

Staalstraal Brabant BV

Koninklijke HH Martens & Zoon bv

SIBELCO Jan de Poorter BV

VARO En. Term. Geertruidenberg

VARO Terminal Geertruidenberg

Eurocem B.V.

Anhydritec BV

bruil

Offshore Ruitenberg B.V.

Dekker BV

Nieuwenhuijsen Scheepsbouw BV

Mw Betonstap B.V.

Amercentrale (is closing down)

Drimmelen Yacht Center B.V.

Van de Reynt Meststoffen B.V.

Vermeulen & ZN Sloopwerken Breda

Sando Puinrecycling bouwstoffen en puinrecycling Breda

Mebin - Breda

Voeten en lepels

Agrifirm Plant BV - Servicepunt en Distributiecentrum

Synbra B.V.

Jansen Beton Bv

Agrifirm Plant BV

Mammoet Road Cargo BV

JMB

Holcim Betonmortel B.V.

Tilborghs

Heeren

Tilburg

Dongen

Oosterhout

Oosterhout

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De Roterij B.V.

Suiker Unie

Stevens Nautical

PLM Cranes B.V.

Czav

BST Dintelsas B.V.

Buyck Techniek b.v.

Houweling Filling Industries B.V.

ArcelorMittal Projects (HQ)

Wensen Handelsonderneming C van Steenberg

Van den Enden Afvalrecycling

Modiform Extrusion B.V.

Adria Natuursteen B.V.

Boerenbond Deurne Voeders Helmond

De Brabantse Asfaltcentrale V.O.F. (BAC)

ForFarmers (locatie Helmond)

Coppens Diervoeding

Den Ouden Regionaal Overslag Centrum B.V.

Betoncentrale Raijmakers Someren BV

Kalle en bakker Betoncentrales/Overslag/Opslag

WSM

Unicorn Grain Specialties B.V.

Visser Bouwstoffen

Tinnemans Jaree

Tinnemans Jaree

Tinnemans Jaree

Tinnemans Jaree

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Ambition

- inspirations (collages)

landscape - Current situation

Canal in landscape

27 oktober 2017



High contextual fields

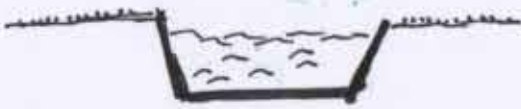
Low contextual fields

landscape - Current situation

Analyses - principals

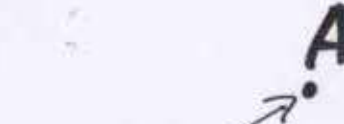
27 oktober 2017

1



Bak met water

3



B. gericht naar 100% op mobiliteit.

5



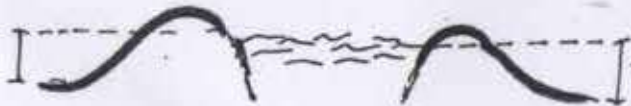
Kanaal gaat door de
water honden en doorlaagde
grondsoorten.

2



(lineare ruimte

4



omgeving lager dan de hoogte
van het water.

6



Kruelwater komt door
de dijken heen langs de
kanalen.

landscape - Ribbon Landscape

Canal in landscape

27 oktober 2017



Ribben landscape part of canal



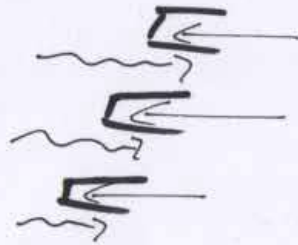
Ribbon landscape de-
tached from canal

landscape - Ribbon Landscape

Analyses - principals

27 oktober 2017

1



samenkomst water
en landschap.

3

②

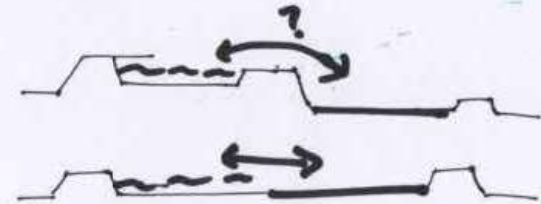


①



1. Direct of indirect
verbonden met kanaal.

5



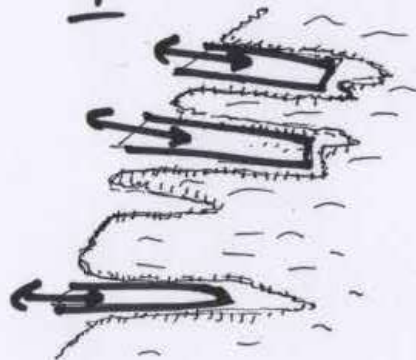
Bij directe verbinding
is er een optimale verkeer en
uitwisseling tussen kanaal en groen.

2



natuur ontwikkeling als
natuurlijke zuiveraar van
het water.

4



een vondig bereikbare
(landbouw kavel) in
zuiverings gebied.

landscape - Natural flow river landscape

Canal in landscape

27 oktober 2017

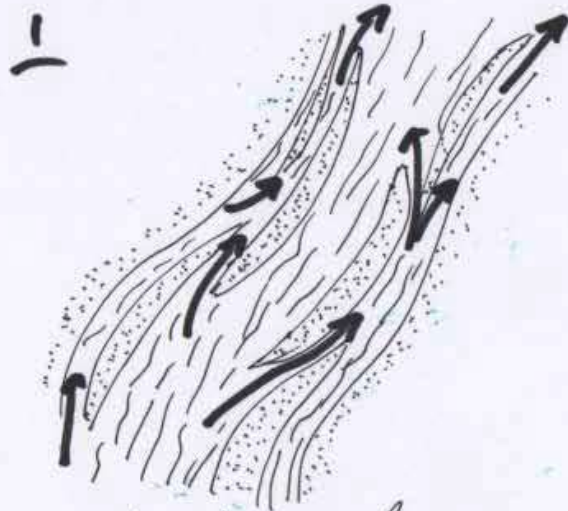


Natural water filtering landscape

landscape - Natural flow river landscape

Analyses - principals

27 oktober 2017



Natuurlijk doorstroming.
geen stille water plekken.



lange langstroom zijden
in al vegetatie die het water
schon maakt.



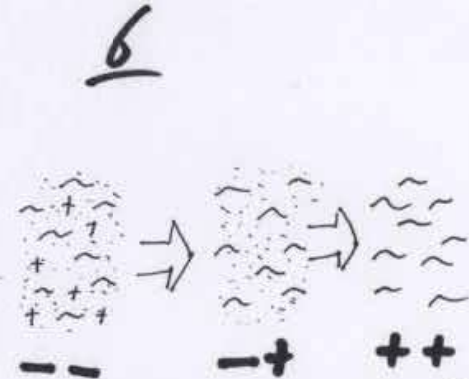
Ruimte voor landbouw
kanalen op de eilanden.



Diverse landschap beleving



Ruimte voor een
gezonde ecologische
structuur



geenveerd de hoogste
kwaliteit water.

Delta's - Delta citie in direct contact to the canel delta

Graduation - Pim Wagemakers

10 november 2017



Next assignment/ challenge - **Urbanisation in relation to the delta**

Graduation - Pim Wagemakers

3 november 2017



Delta's - Delta citie in direct contact to the canel delta

Graduation - Pim Wagemakers
10 november 2017



Delta's - **Canal cities become canal delta cities**

Graduation - Pim Wagemakers
10 november 2017



Delta's - Helmond canal delta city

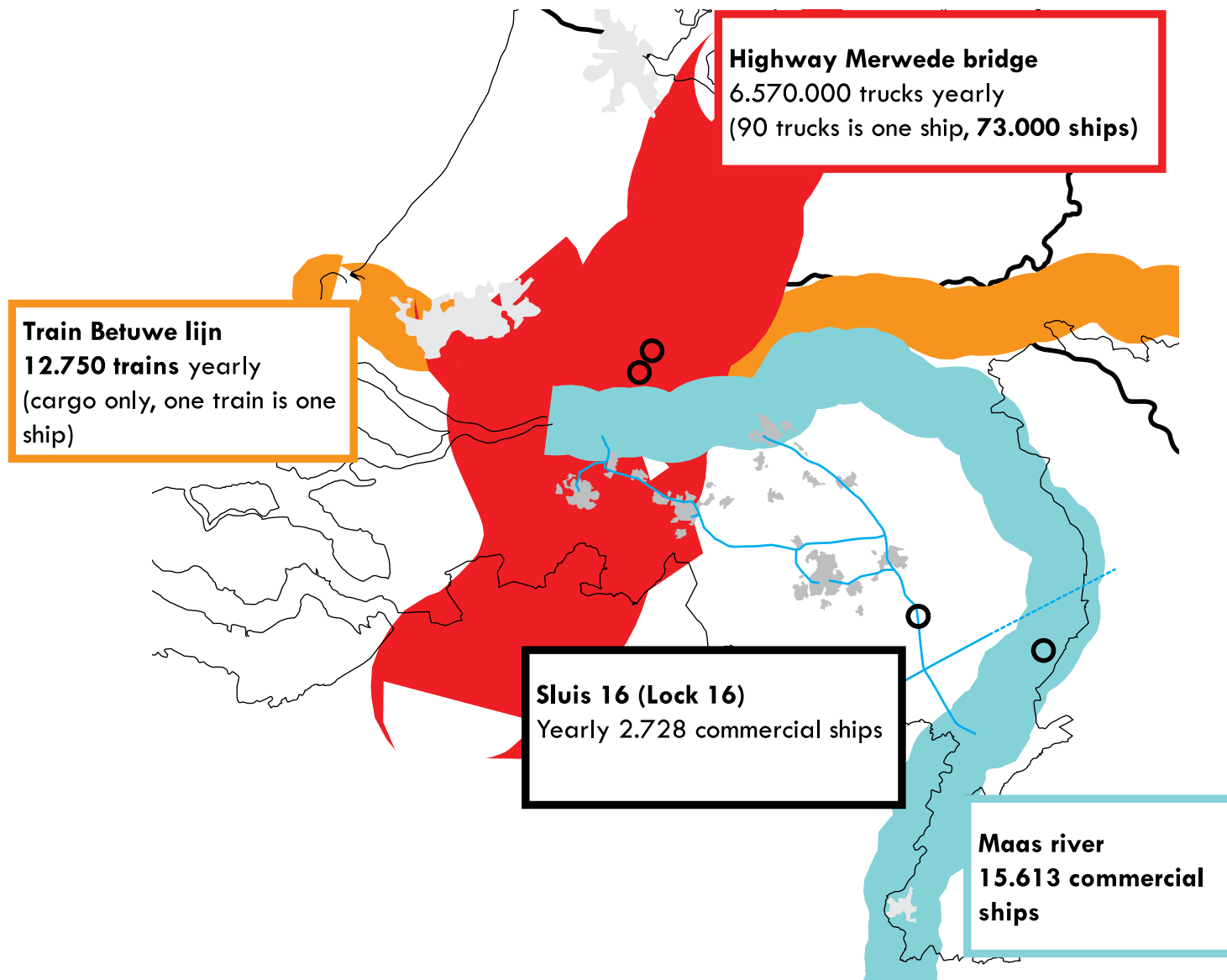
Graduation - Pim Wagemakers
10 november 2017



Inventarisatie

- Canal history
- Connected to the city
- Ground
- Watersides
- Walking possibilities
- Inventarisatie maps brabant
- Canals in numbers

Use



Canal history.

Canel in the city - Chronological history of use

Graduation Studio, MA+U
Pim Wagemakers, Augustus 2017

Middle ages and golden age, rivers and streams ass economic potential.

Industrial revolution, burying the water streams because they had developed themselves to stinking open sewers.



Muting harbors for public heath reassons.

Around the 60'/70' great pollution of the rivers, streams and canals.

Introduction of the water purification before exporting it to the surface water.

Slow increase of surface water quality.

Around the 80'/90' there's a new interest in water bodies like rivers and canals. Places that used to be unpleasant because of the filthy surface water become popular for living and recreation.

2000/2010 queen swimming in the Amsterdam canals.

High quality water has a new economic potential.

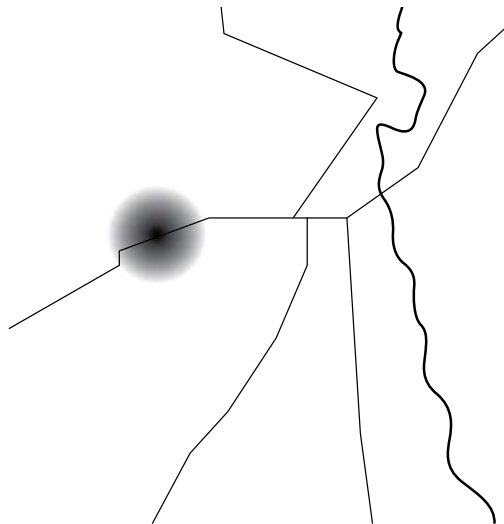
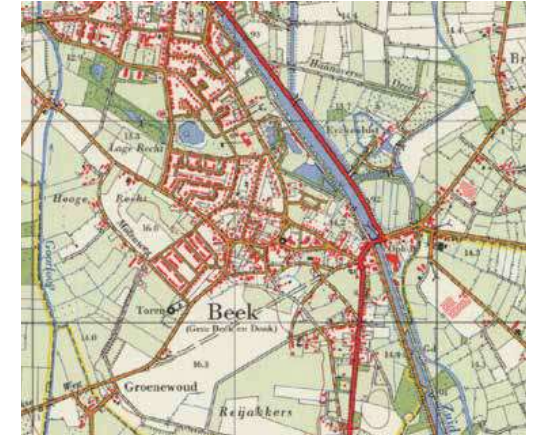
Human reaction

Graduation studio - Canals

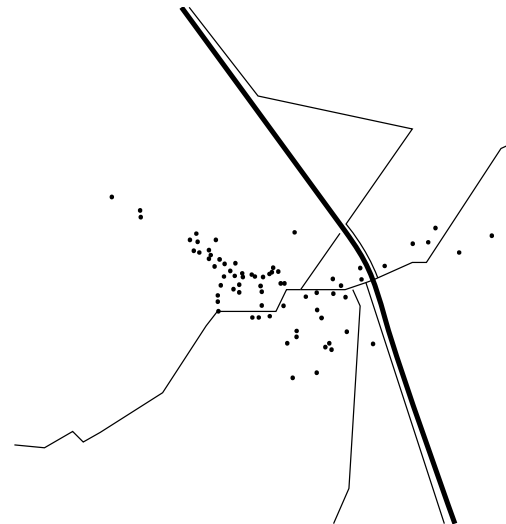
Pim wagemakers - 22 september 2017

Concept

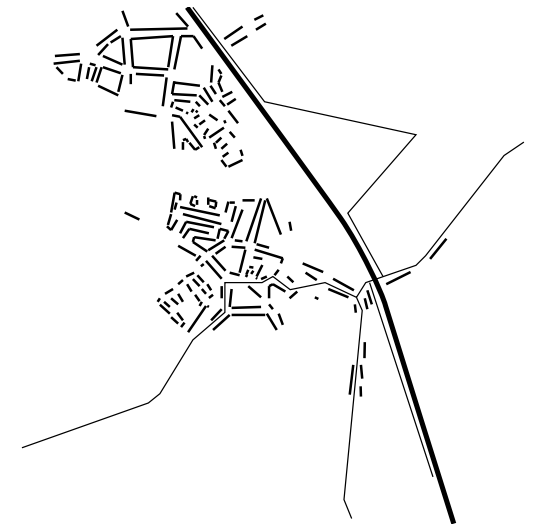
Machine system is based on the natural system but over-
rules it in scale and magnifies existing use. Its like it was
a river.



Beek - 1824
Natural landscape



Beek - 1883
Introduction Canal and bridge

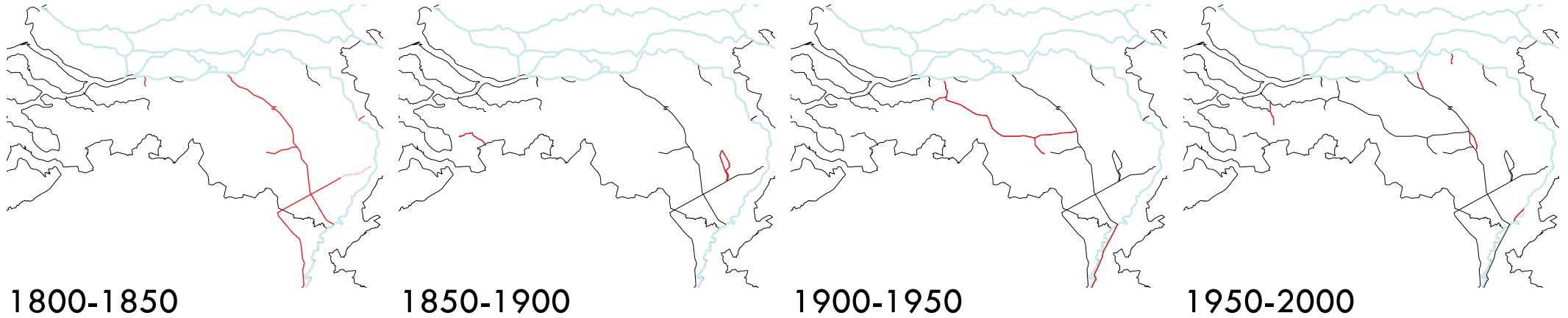


Beek - 1973
Canal bridge brings growing village

History - Building a system

Graduation - Pim Wagemakers

3 november 2017



1800-1850

1850-1900

1900-1950

1950-2000

Building reason:

- **Economical** impuls region
- Shortcut from Maas (-Military transport for Napoleon)

Building reason:

- **Peat**

Building reason:

- Textile **industrie** in Tilburg (Coal en Textile)

Building reason:

- **Economical**
- Efficiency

Challanges - Lost local and regional savety



Former harbor and kanal area's become the backside of the city with social challanges.

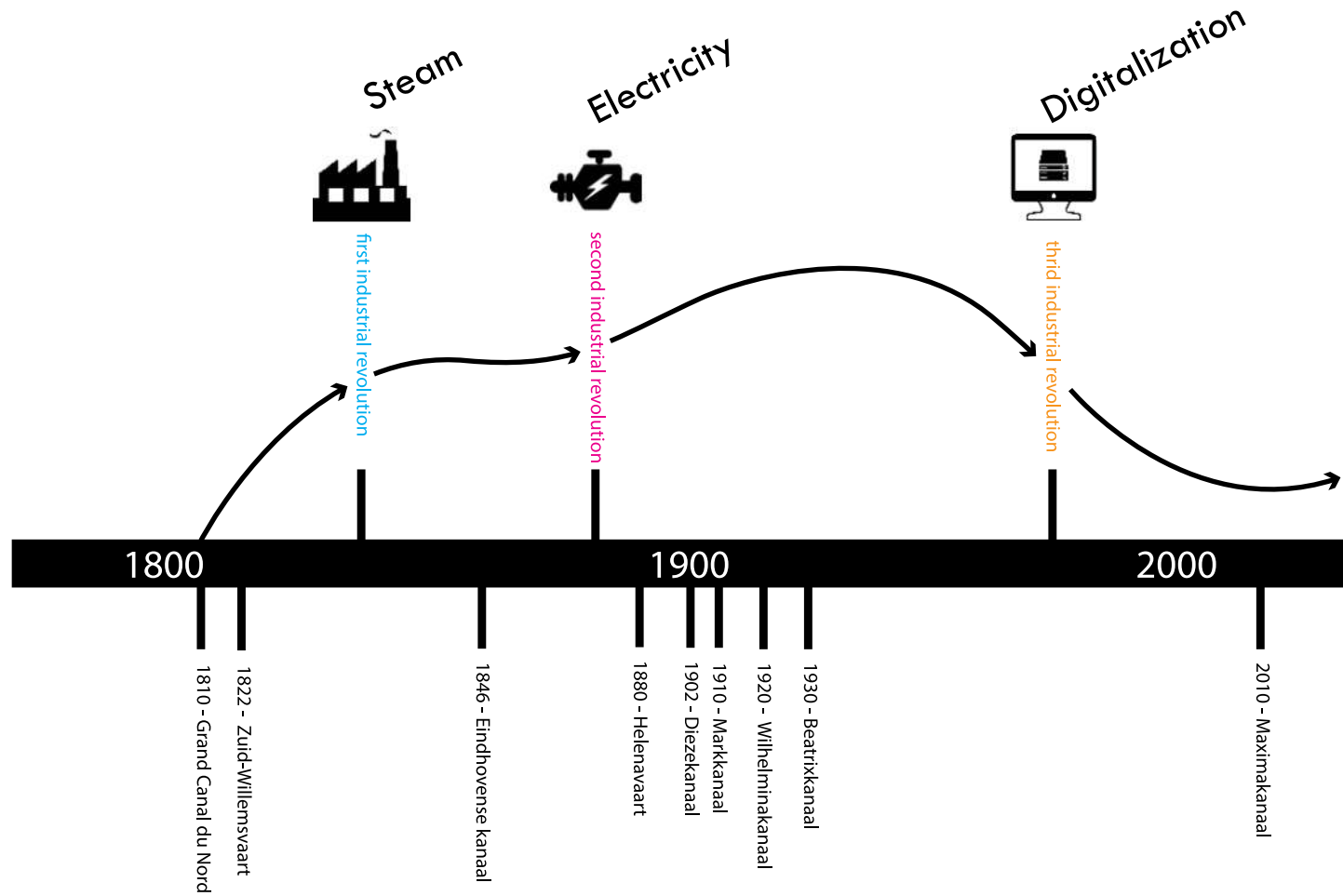


Lost of important heritage.



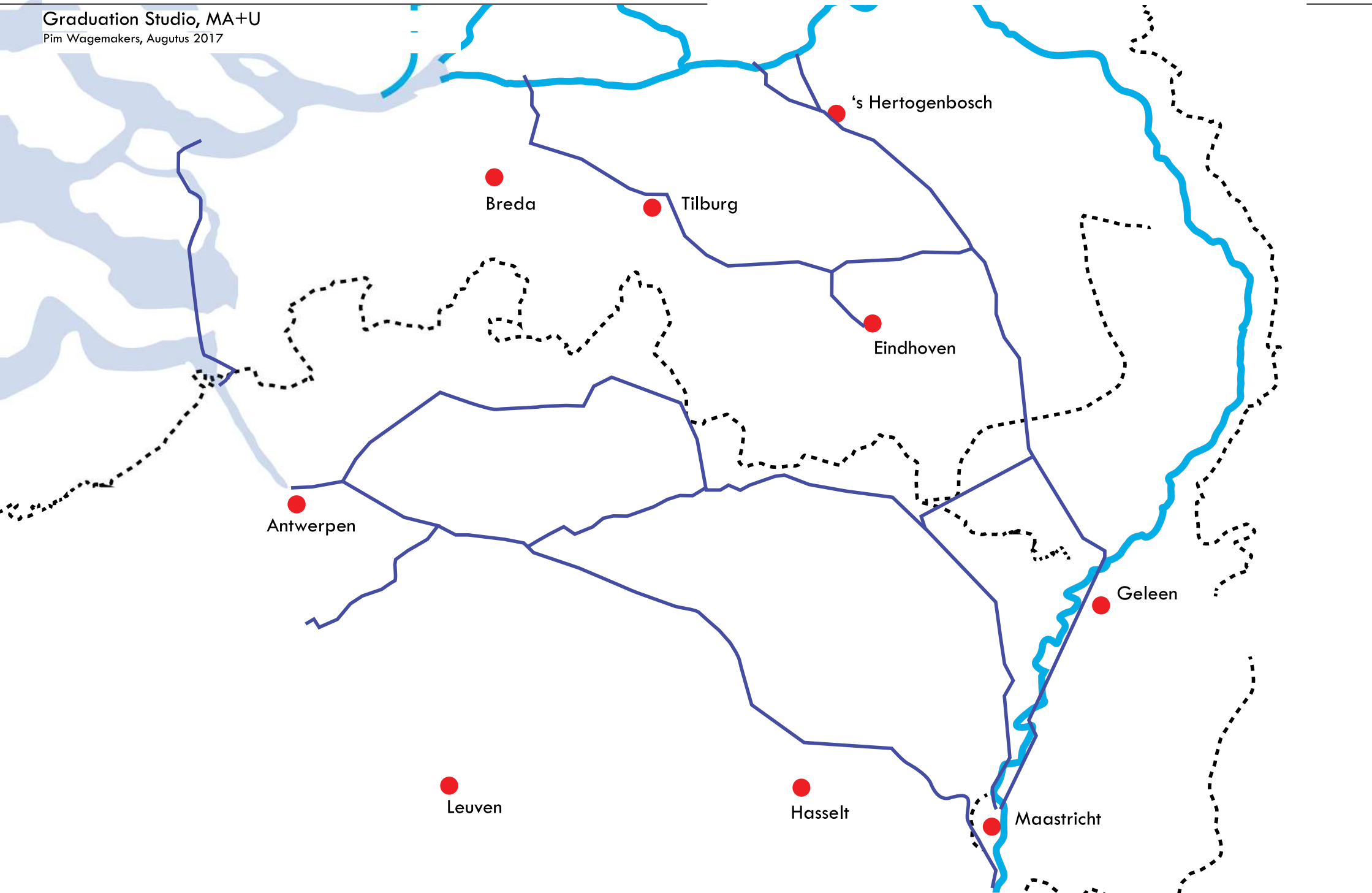
Dangerously high watersides for humans and animals

Industrial heritage



Canel cross country - Diversity in occurrence

Graduation Studio, MA+U
Pim Wagemakers, Augustus 2017

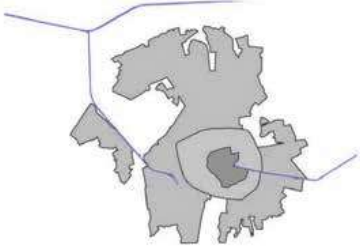


Canel to the city - Touching the cities

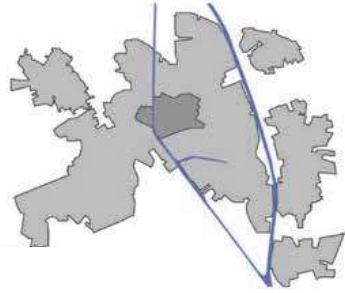
Graduation Studio, MA+U

Pim Wagemakers, Augustus 2017

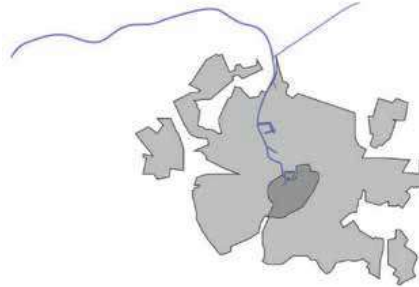
Eindhoven



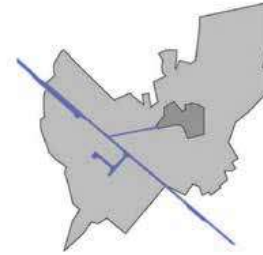
Helmond



Breda



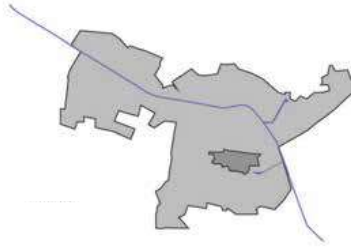
Veghel



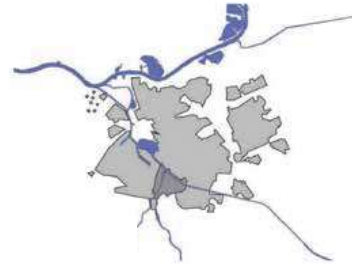
Roosendaal



Tilburg



's-Hertogenbosch



Bergen op Zoom



**Raamsdonkveer en
Geertruidenberg**



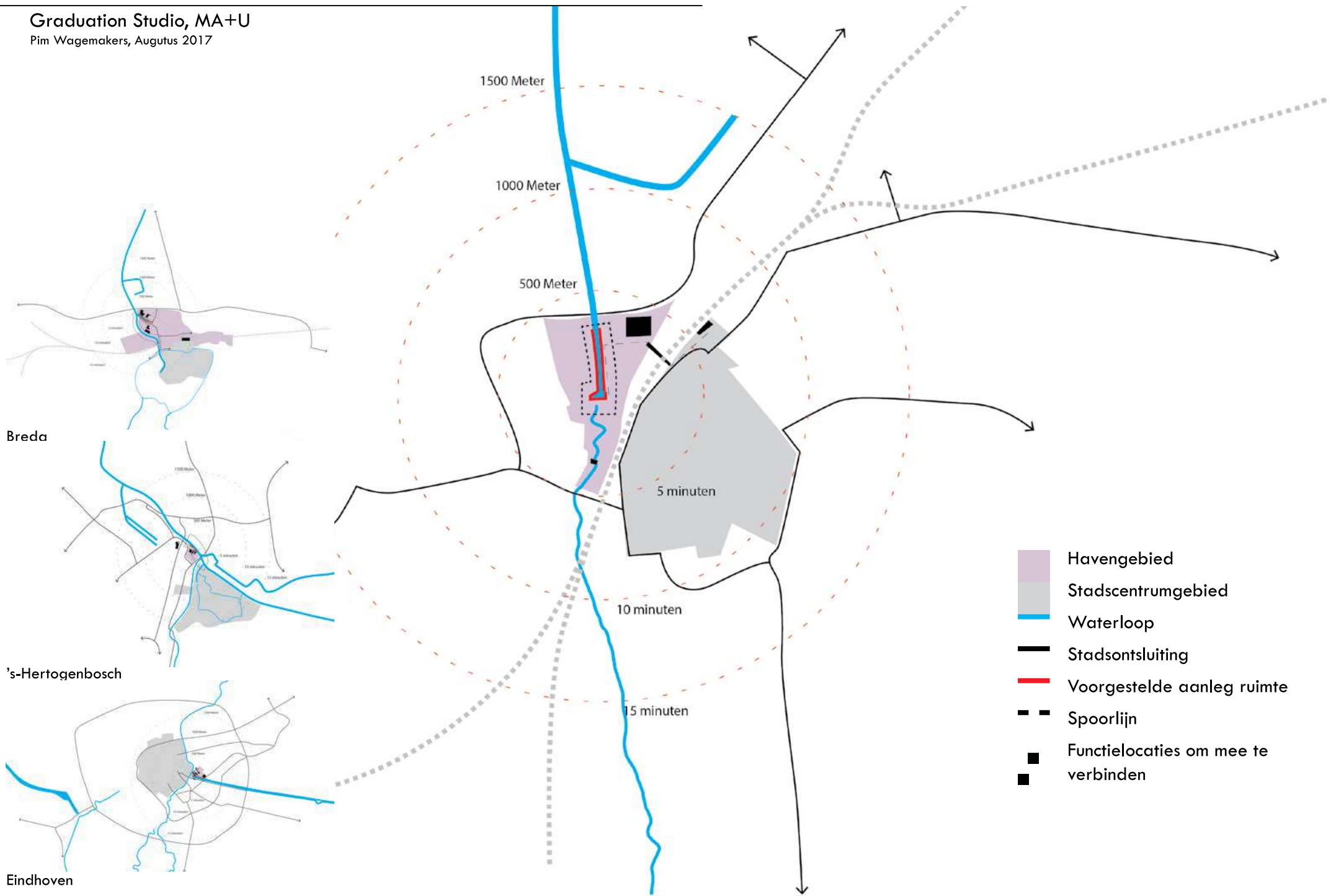
Oosterhout



Canel to the city - Example Roosendaal

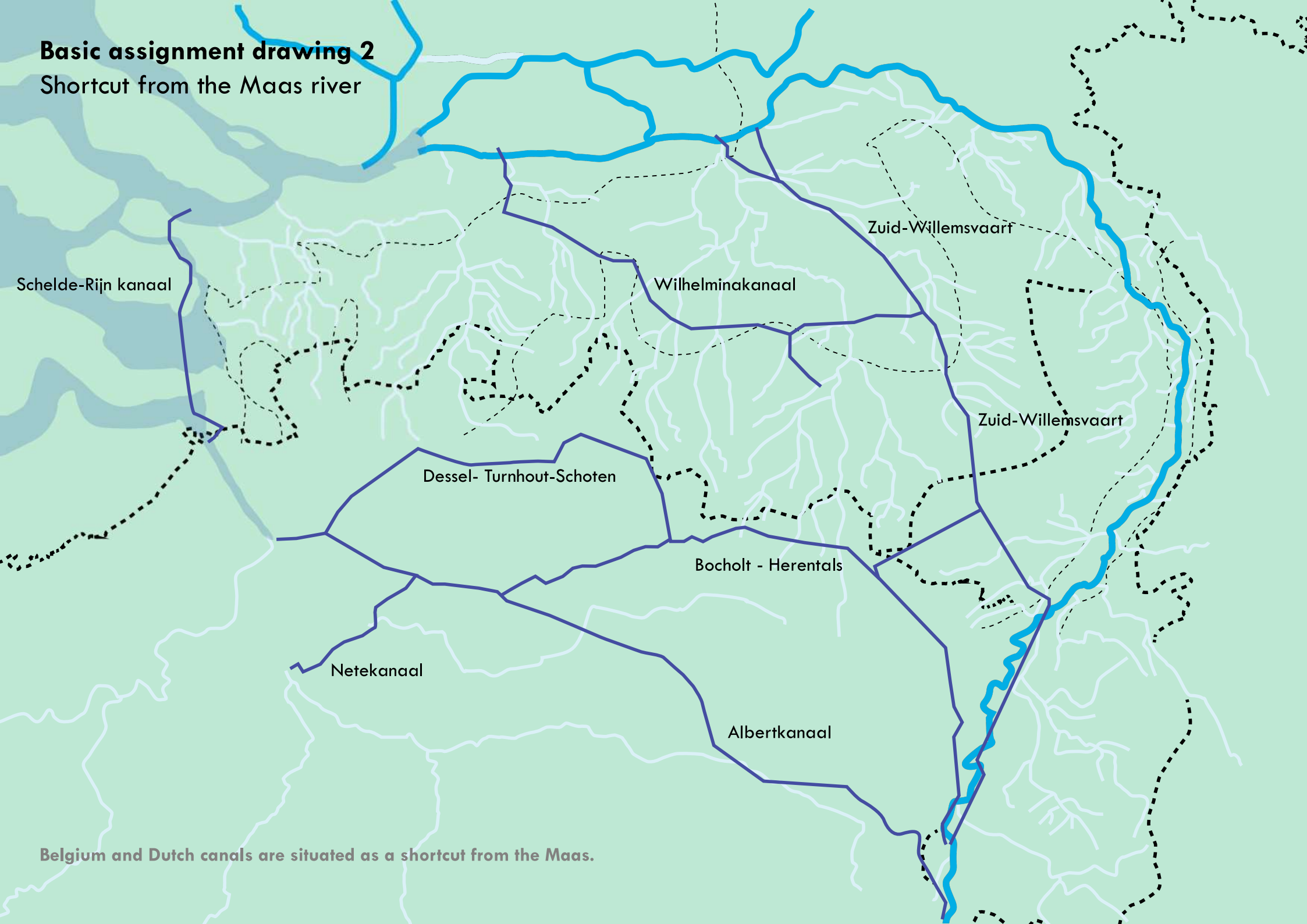
Graduation Studio, MA+U

Pim Wagemakers, Augustus 2017



Basic assignment drawing 2

Shortcut from the Maas river



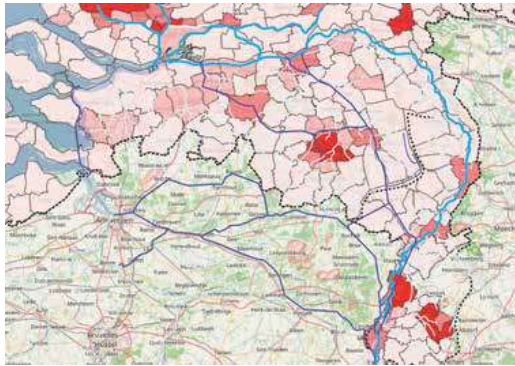
Belgium and Dutch canals are situated as a shortcut from the Maas.

Canal versus ground

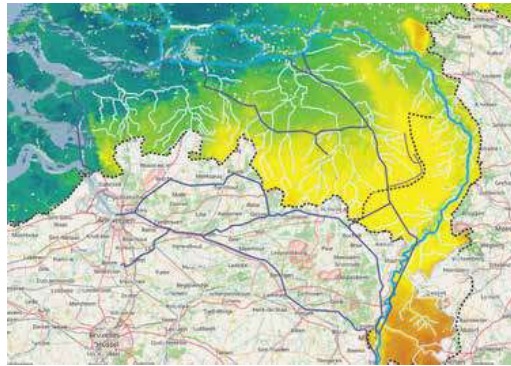
Canals and the geomorphology

2 types of canals

1.



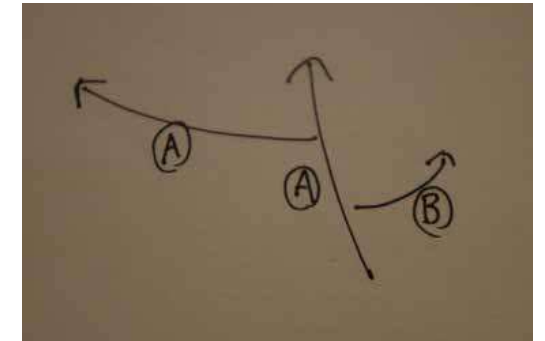
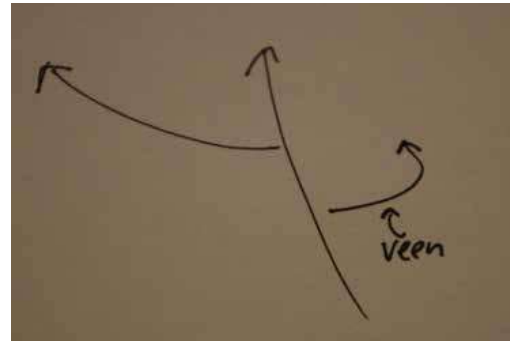
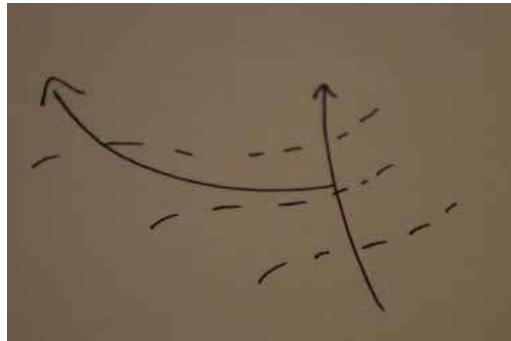
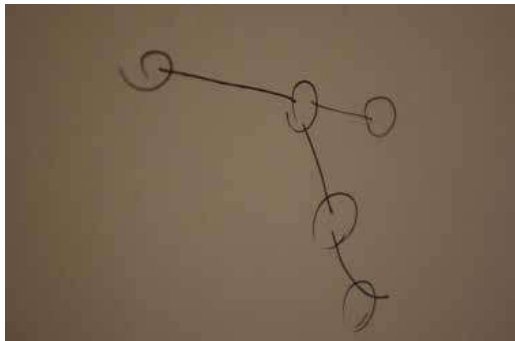
2.



3.A



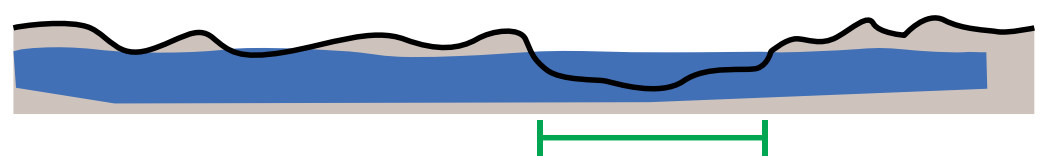
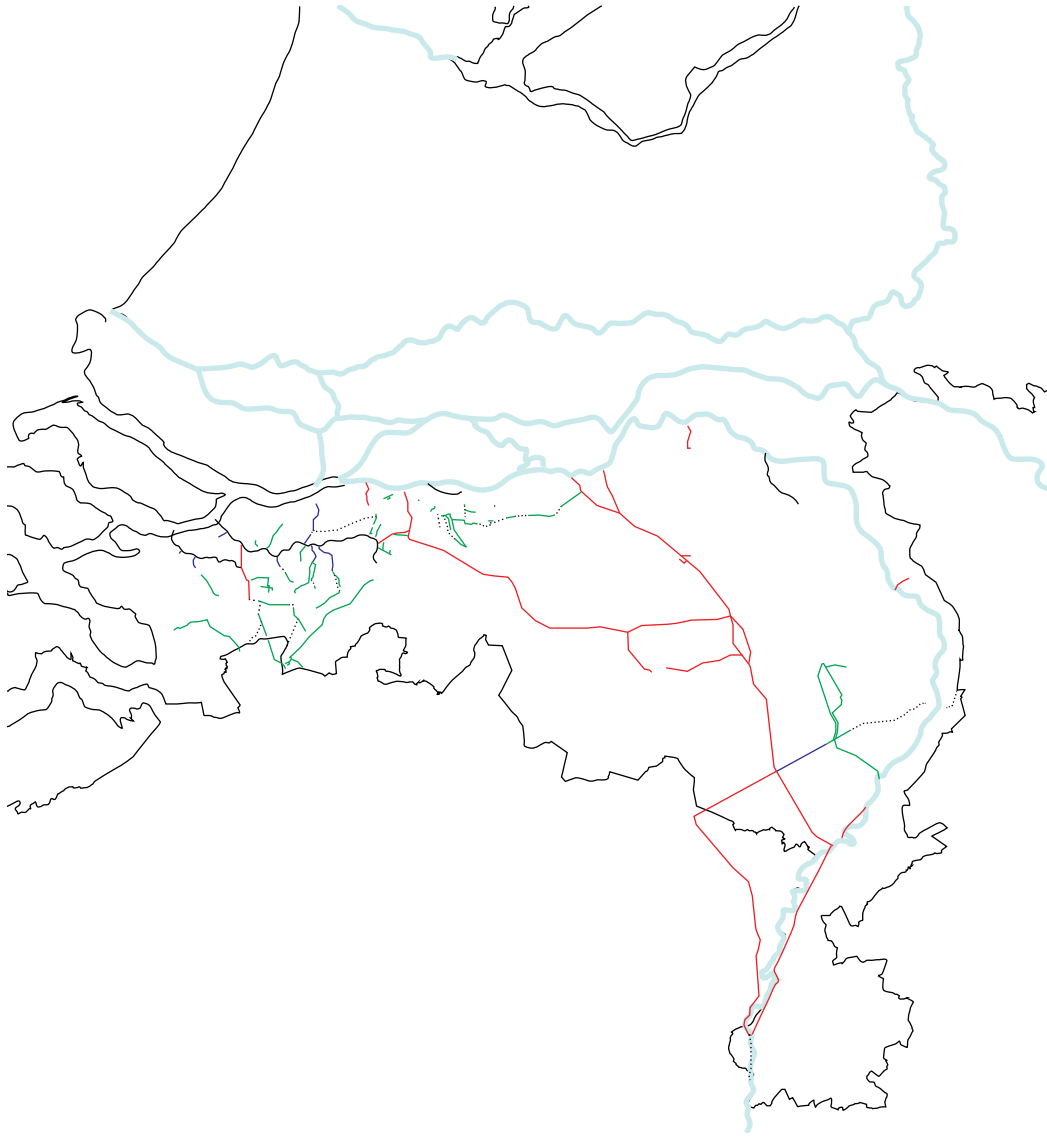
3.B



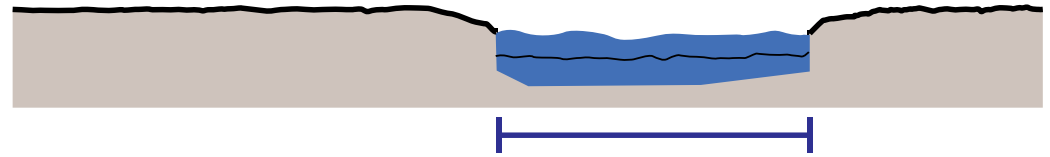
3 types of canal sides - designing for a connection?

Graduation studio - Canals

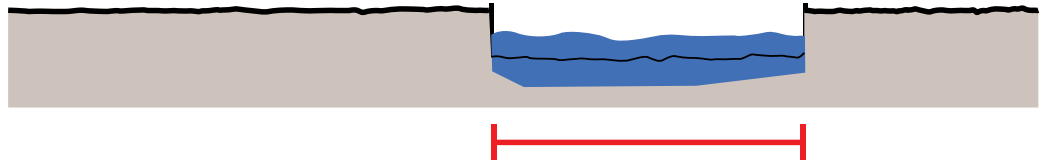
Pim wagemakers - 22 september 2017



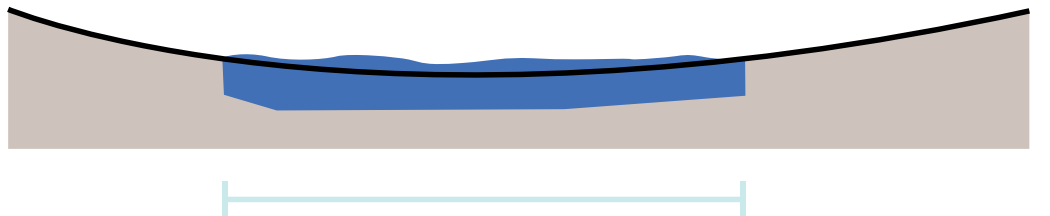
Canal in natural context. Connected with surrounding water ponds.



Canalised river and disused canal. Excessive from its context.



Economical valuable canal. efficiently designed, not connected.

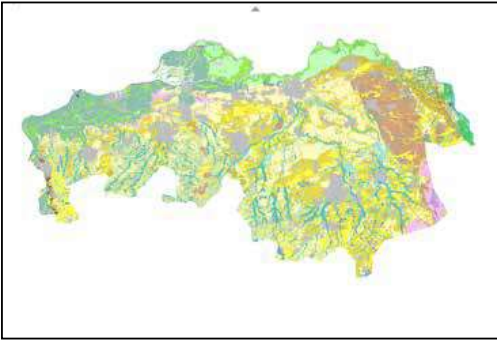


Natural river, connected and excessive for its context.

The opportunity:

Brabant canals the connecting element

A.

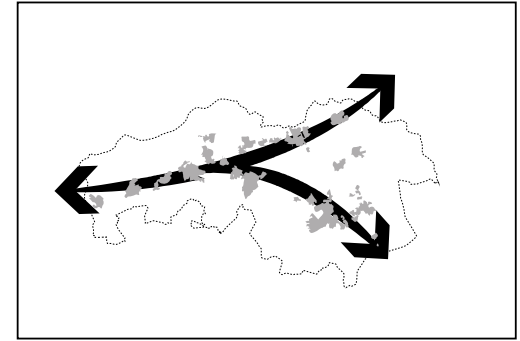


Geological situation Brabant



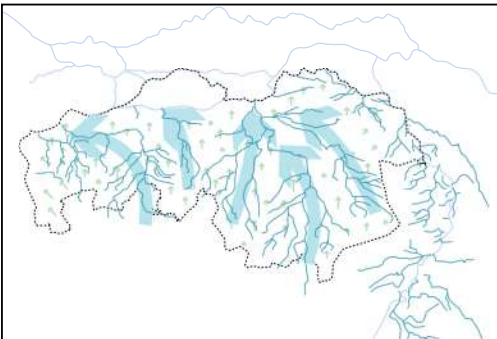
Elevation differences Brabant

A.

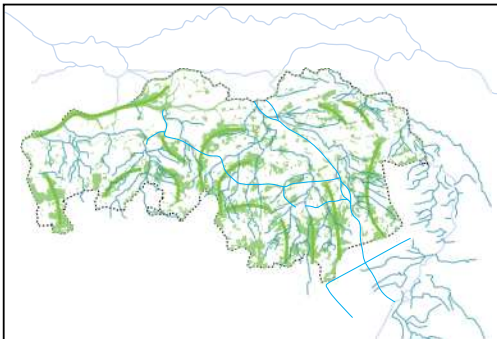


Brabant urban line from west to east.

C.



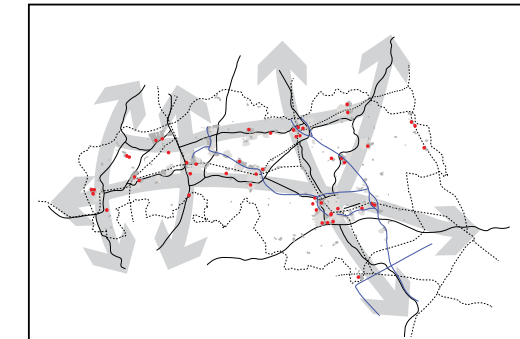
Groundwater and river flow direction.



Between the rivers are the (generally old) non-cultivated forest areas. (green)

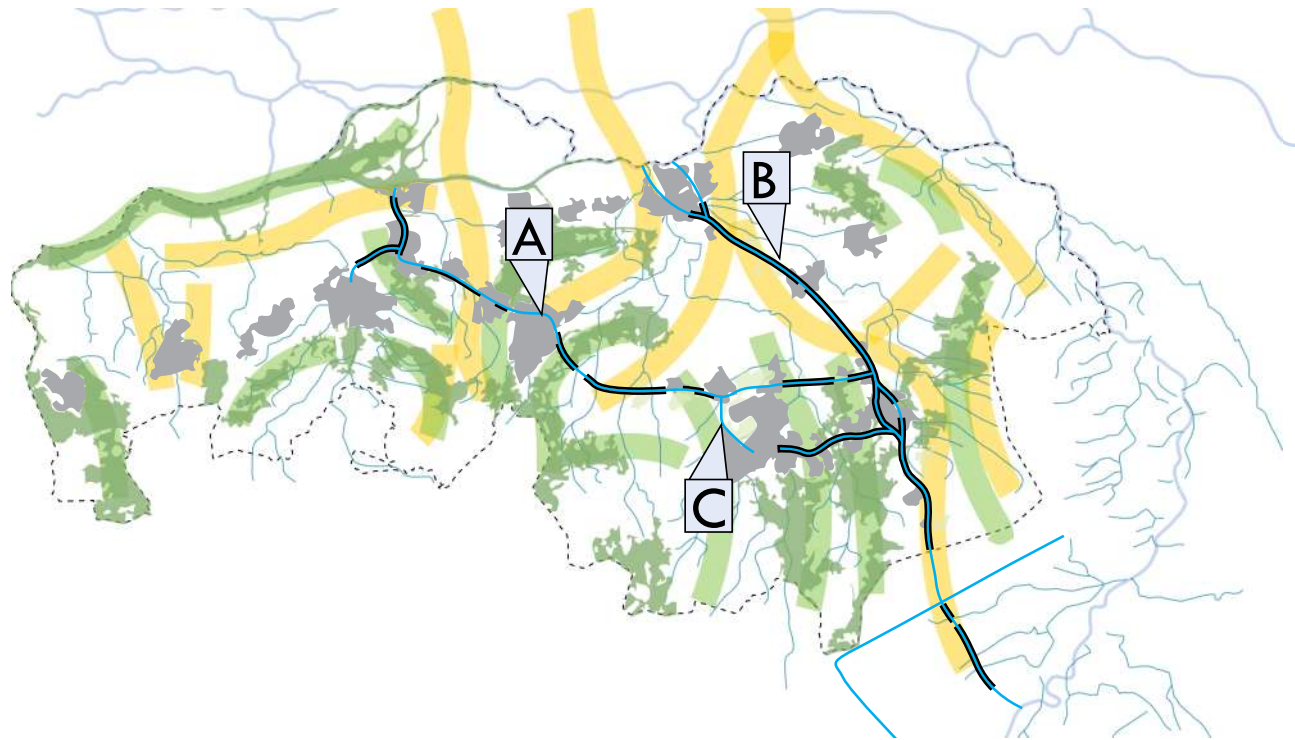
Following the rivers agricultural fields are situated on the most fertile grounds. (white)

B.



Highway network from north to south.

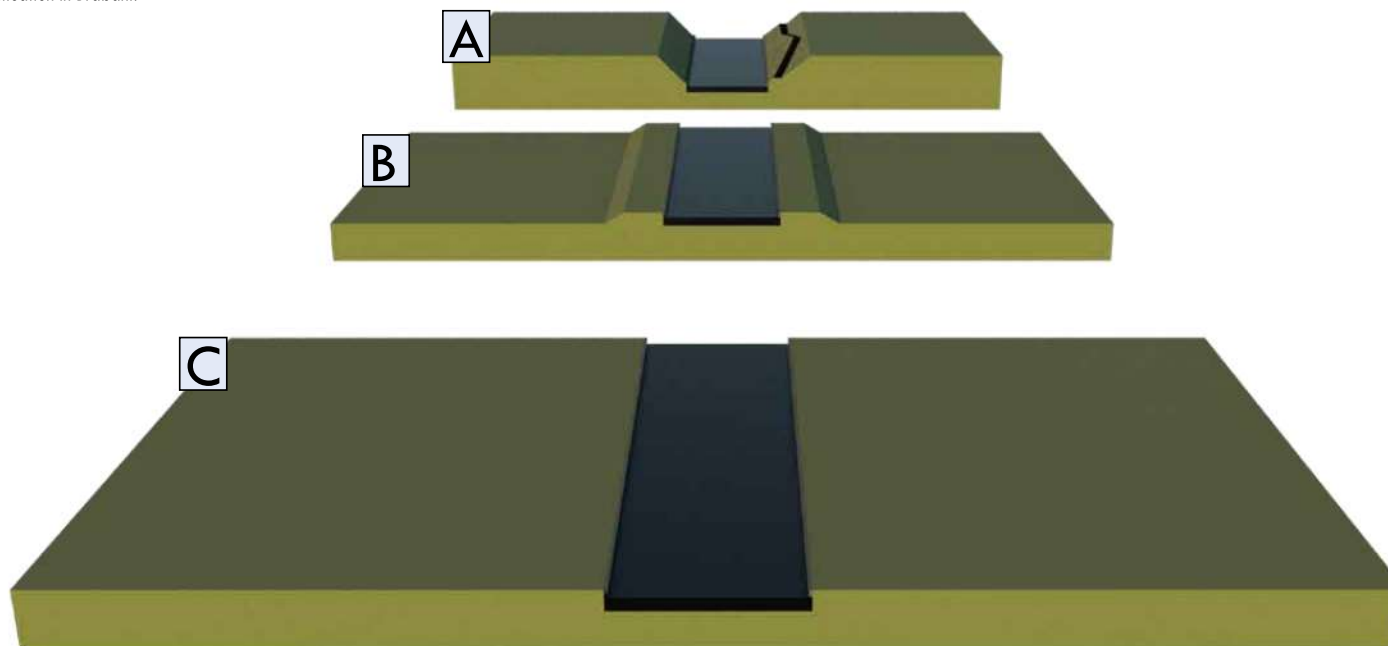
Conclusion:



Non-cultivated landscape and the open agricultural production landscape lock fingers following the Brabant rivers in north-south connection.

The Brabant canals are right across everything.

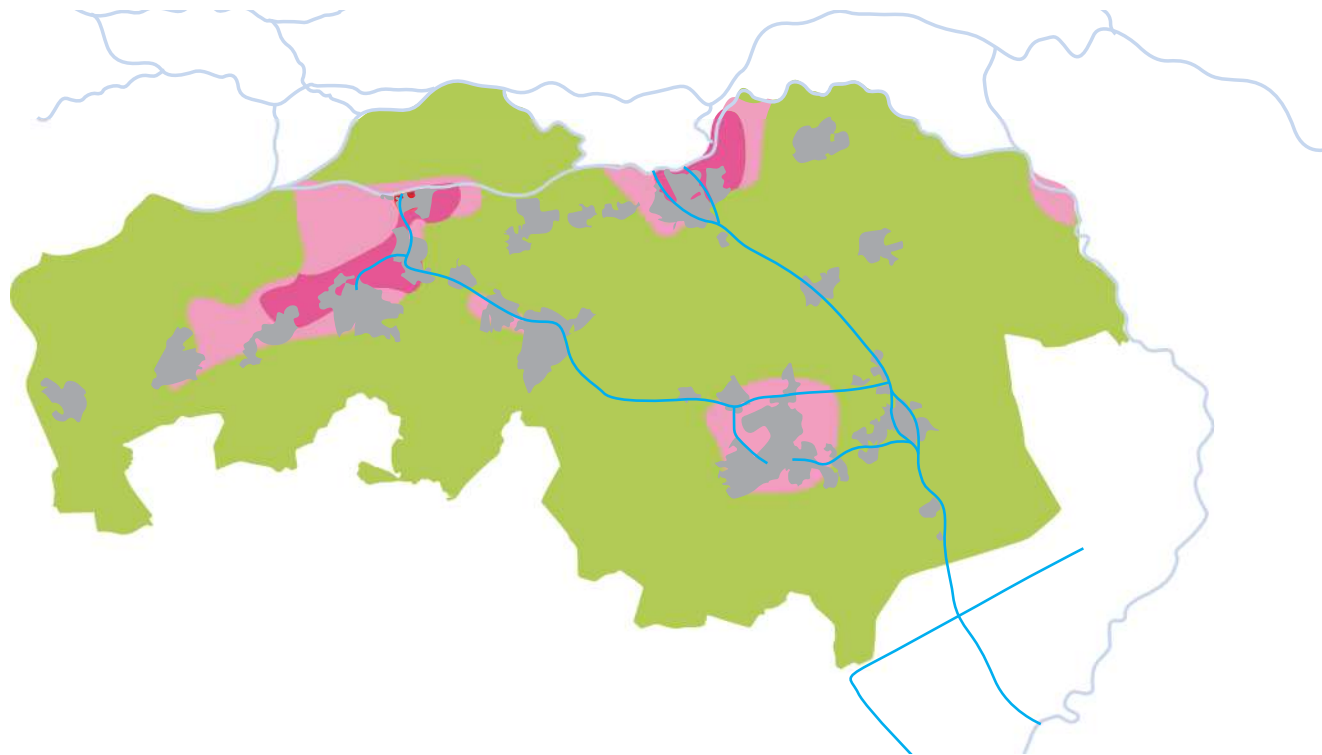
Three kanal situation in Brabant:



Three canal situations in Brabant. A, In most urban zones the canal, canal sides and context is the same height. Settlements where often build on higher ground. B, In most agricultural, forest and stream vallies the canal is situated above the contextual landscape. C, In the heigher parts of Brabant, in the sand ground area's around Eindhoven en Best the canal is lower then its contextual landscape.

Walking possibilities:

Brabant in relation to recreational walking possibilities



Walking and cycling are the most popular outdoor sports in the Netherlands. These in relation to the weather and the seasons are an integral part of the recreational experience of slowlife and the experience of it. According to hikers, North Brabant after South Holland is seen as the least attractive hiking province. Mainly in the big cities (Brabantstad) there is a shortage of possibilities. Brabantstad needs a Brabant park.

- No shortage of walking paths
- There is a shortage
- There is a big shortage

Economics

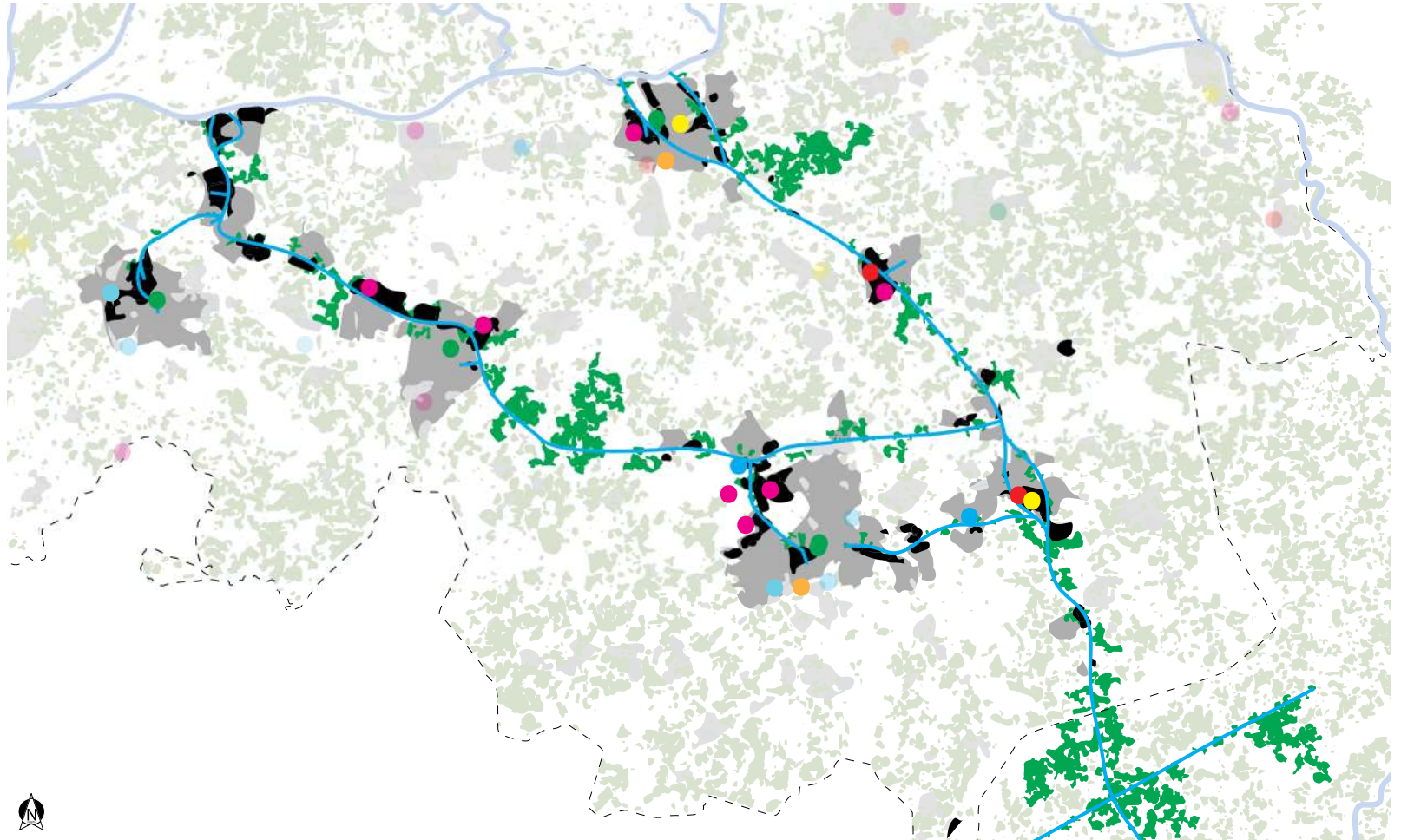
- Cluster - Life Science & Health
- Cluster - Maintenance
- Cluster - Logistiek
- Cluster - High Tech Sector
- Cluster - Creatieve Industrie (veelal versnipperd overal)
- Cluster - Biobased economy
- Cluster - Agrofood clusters

Agricultural farms

Urban

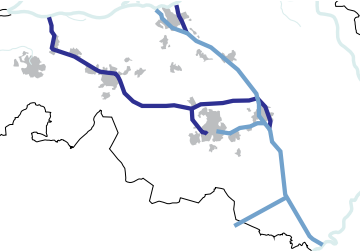
Industrial areas

There is a combination of main industrial locations and agricultural production fields that are related to the canals system.



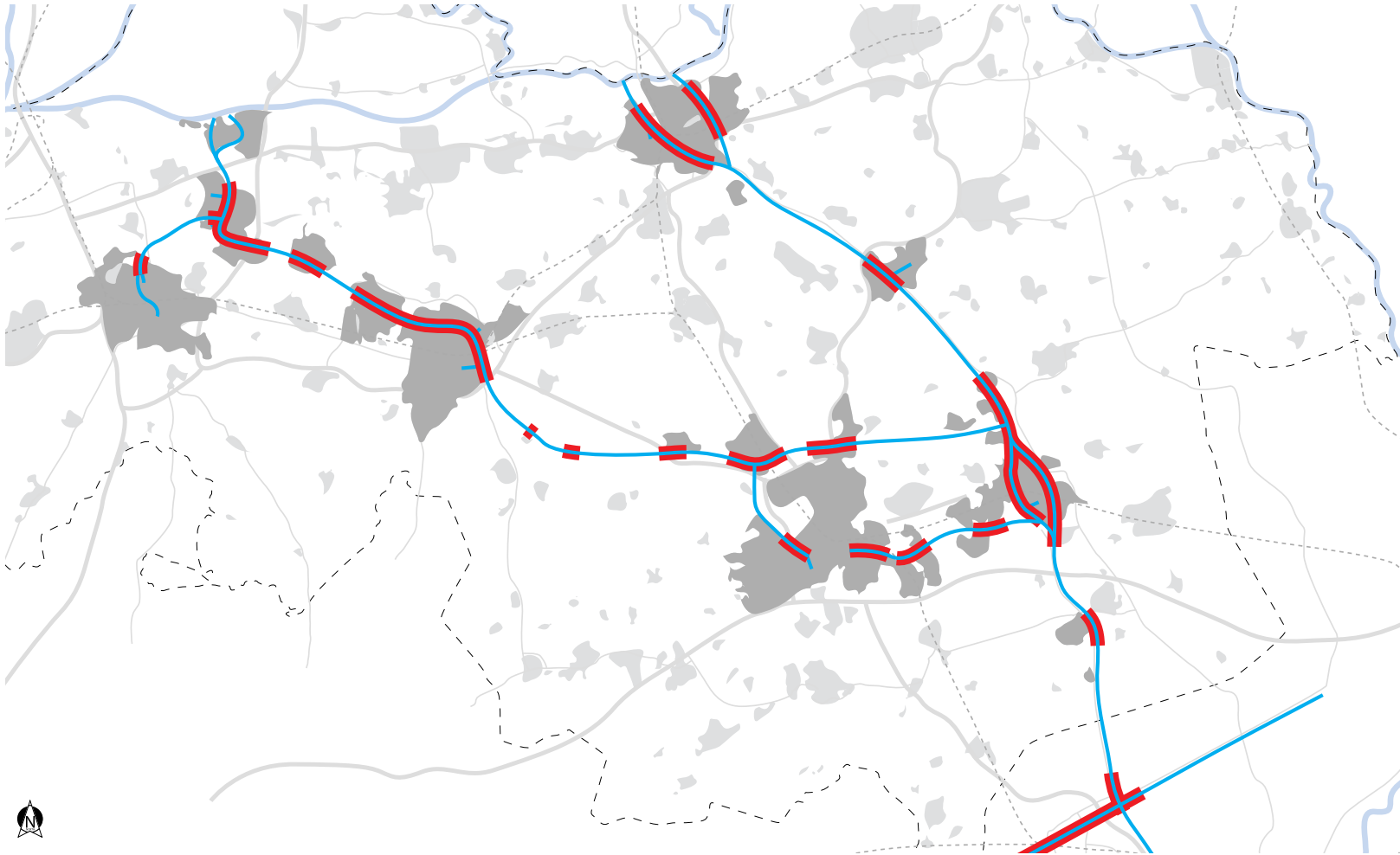
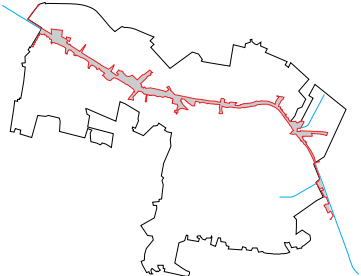
Open space

Two types of canal

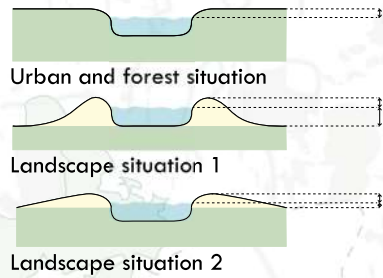


Space around canals can be seen in two typologies. Along the dark bleu line (Wilhelmina canal) there is land locked urabn space like shown in the Tilburg example below. Along the lite bleu line there is water space.

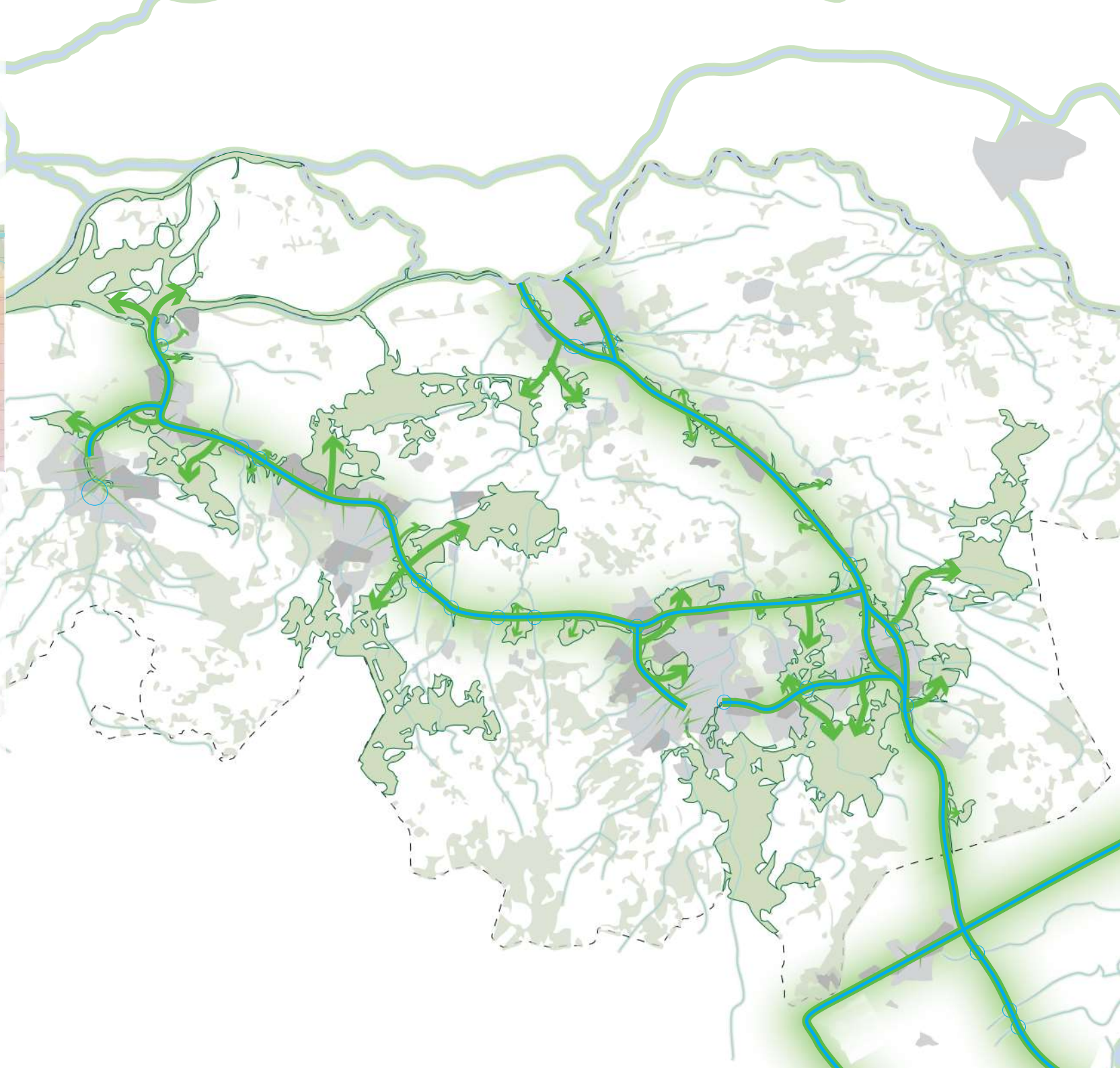
Empty urban space (Tilburg example)



Analyses Nature

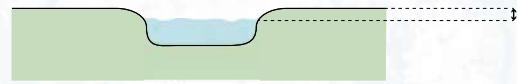


- Ehs scattered around
- Easily connectable
- Dikes form an obstacle



Analyses

Landscape



Urban situation

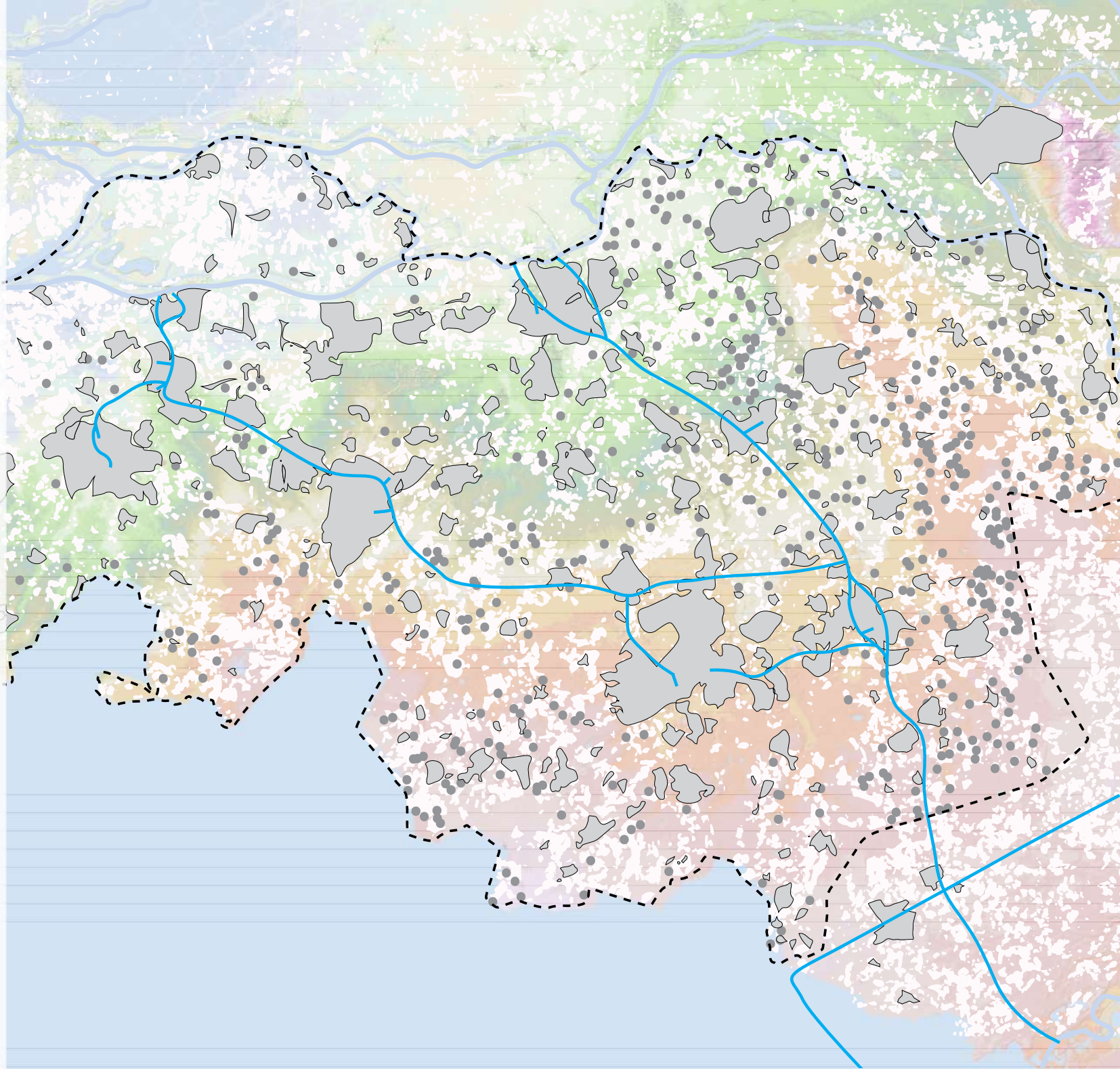


Landscape situation 1



Landscape situation 2

- Dikes are related to content height
- Canals are build
- Crossing al landscape scales
- Enetering avery major city



Analyses Urbanisation

Two types of canal

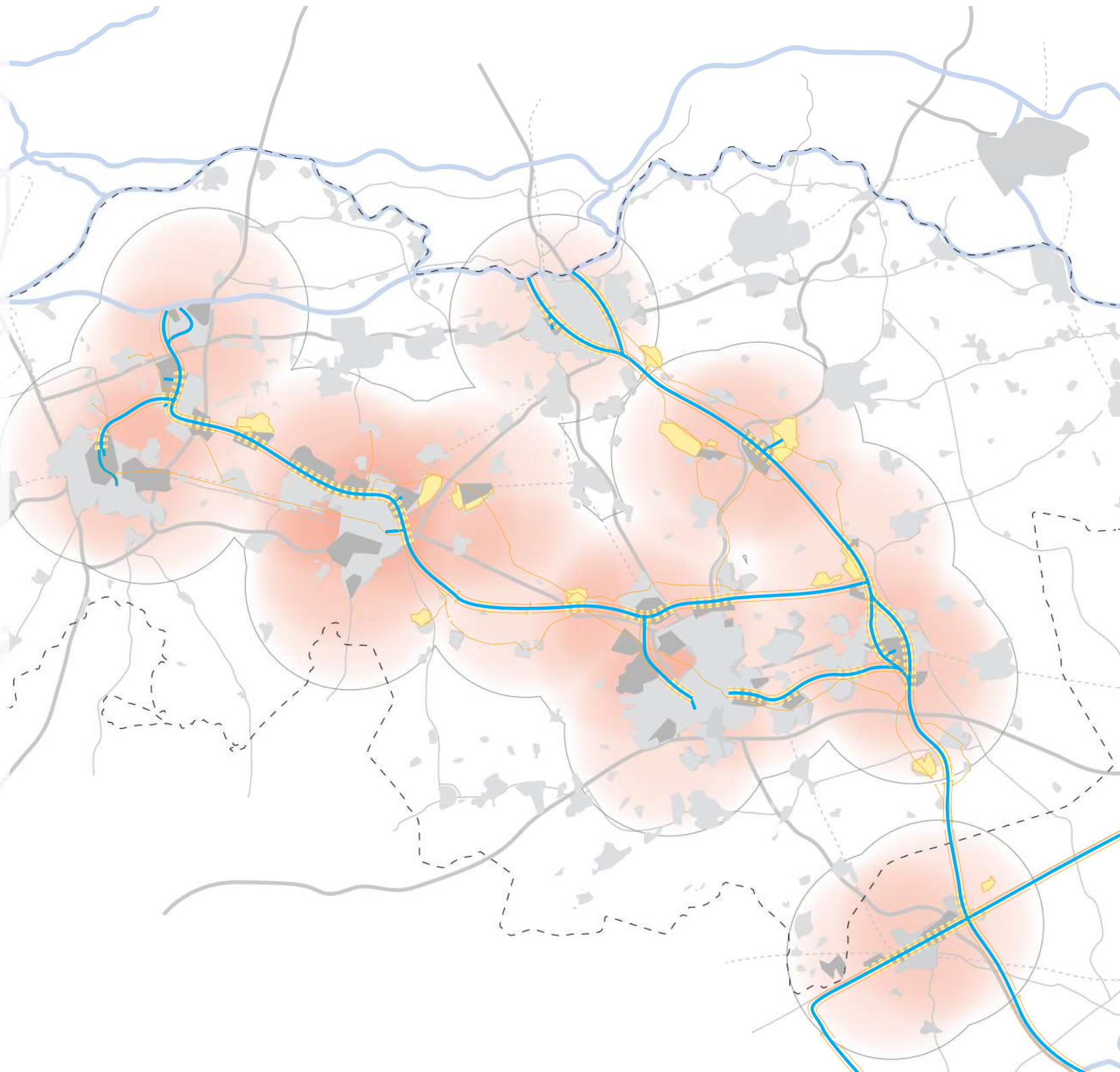


Empty urban space

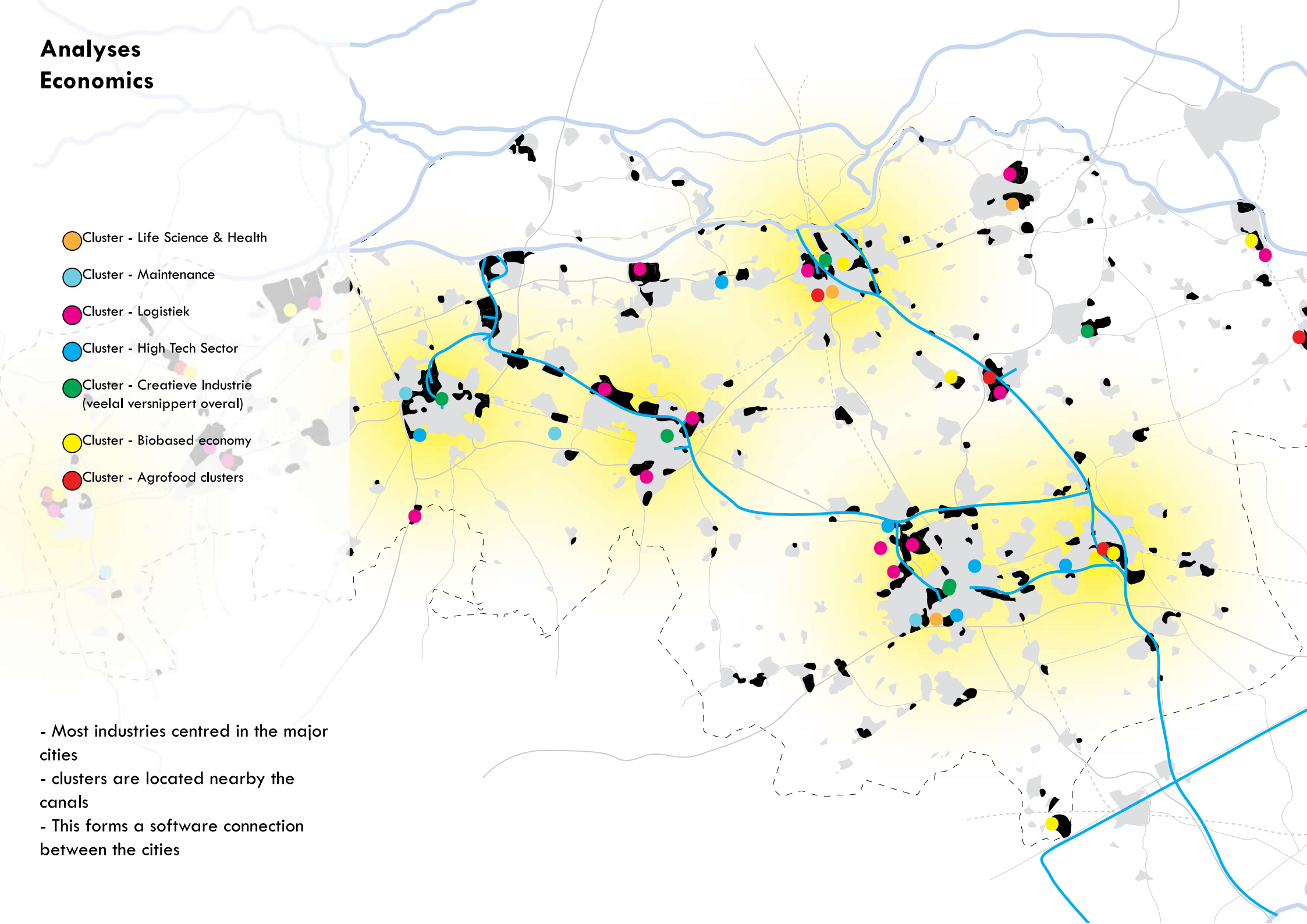


New space for living

Tot 2030 nog 120.000 woningen nodig in
Brabant



Analyses Economics

- 
- The map shows a region with a network of canals (blue lines) and urban areas (grey patches). A large yellow-shaded area covers the central and eastern parts of the map. Various colored dots represent different economic clusters. A blue line traces a path through the yellow area, connecting several clusters. The legend on the left identifies the clusters by color: orange for Life Science & Health, light blue for Maintenance, pink for Logistiek, blue for High Tech Sector, green for Creatieve Industrie, yellow for Biobased economy, and red for Agrofood clusters. The text at the bottom explains that industries are concentrated in major cities, clusters are near canals, and this forms a software connection between cities.
- Cluster - Life Science & Health
 - Cluster - Maintenance
 - Cluster - Logistiek
 - Cluster - High Tech Sector
 - Cluster - Creatieve Industrie
(veelal versnipperd overall)
 - Cluster - Biobased economy
 - Cluster - Agrofood clusters

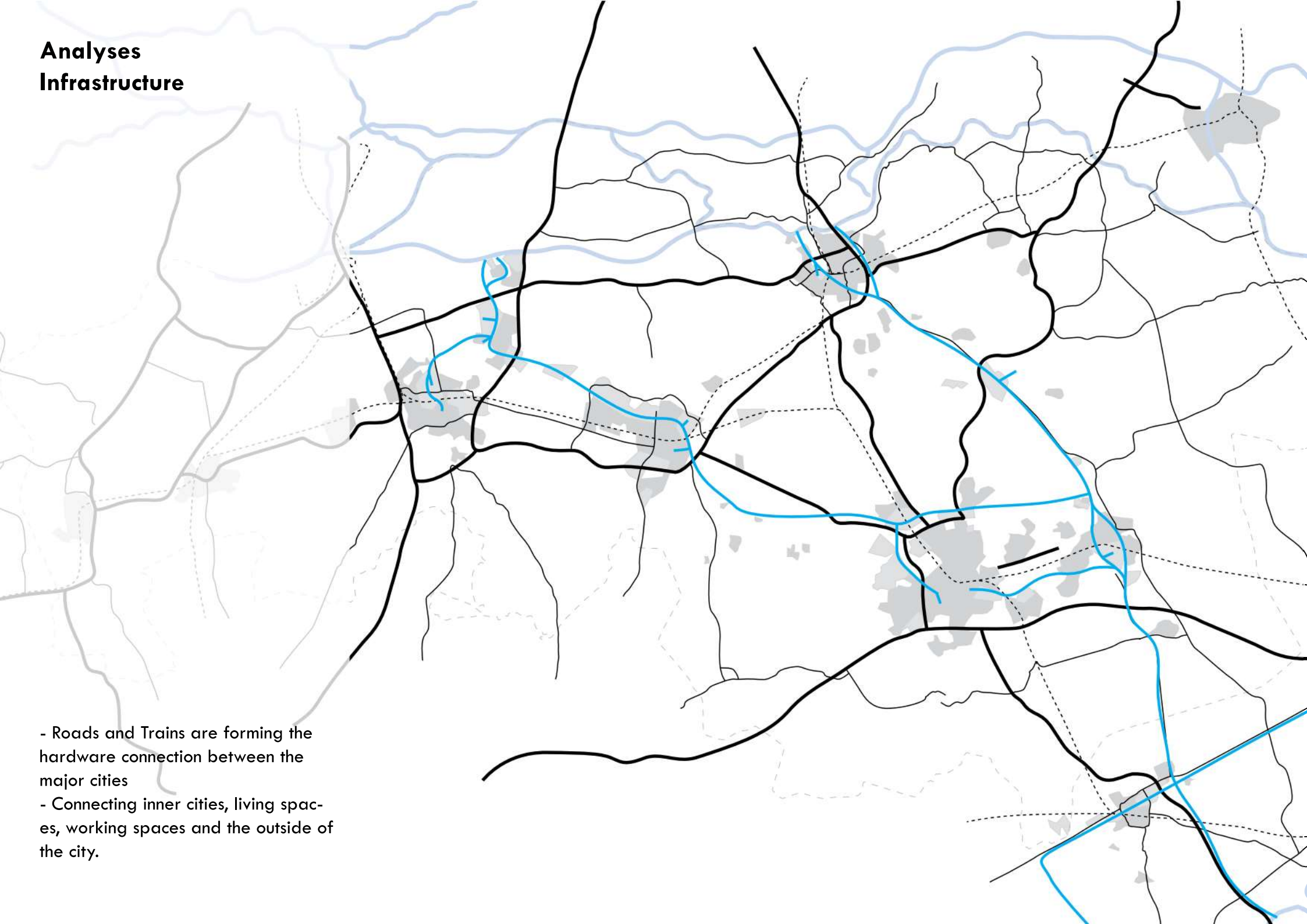
- Most industries centred in the major cities
- clusters are located nearby the canals
- This forms a software connection between the cities

Analyses Infrastructure



- Roads and Trains are forming the hardware connection between the major cities
- Connecting inner cities, living spaces, working spaces and the outside of the city.

Analyses Infrastructure



- Roads and Trains are forming the hardware connection between the major cities
- Connecting inner cities, living spaces, working spaces and the outside of the city.

Numbers ●

Canal space size

Big

Total distance 392,68 kilometer canals

General with 10 meters canals

$$10/1000=0,01$$

$$392,68*0,01= 3,9268$$

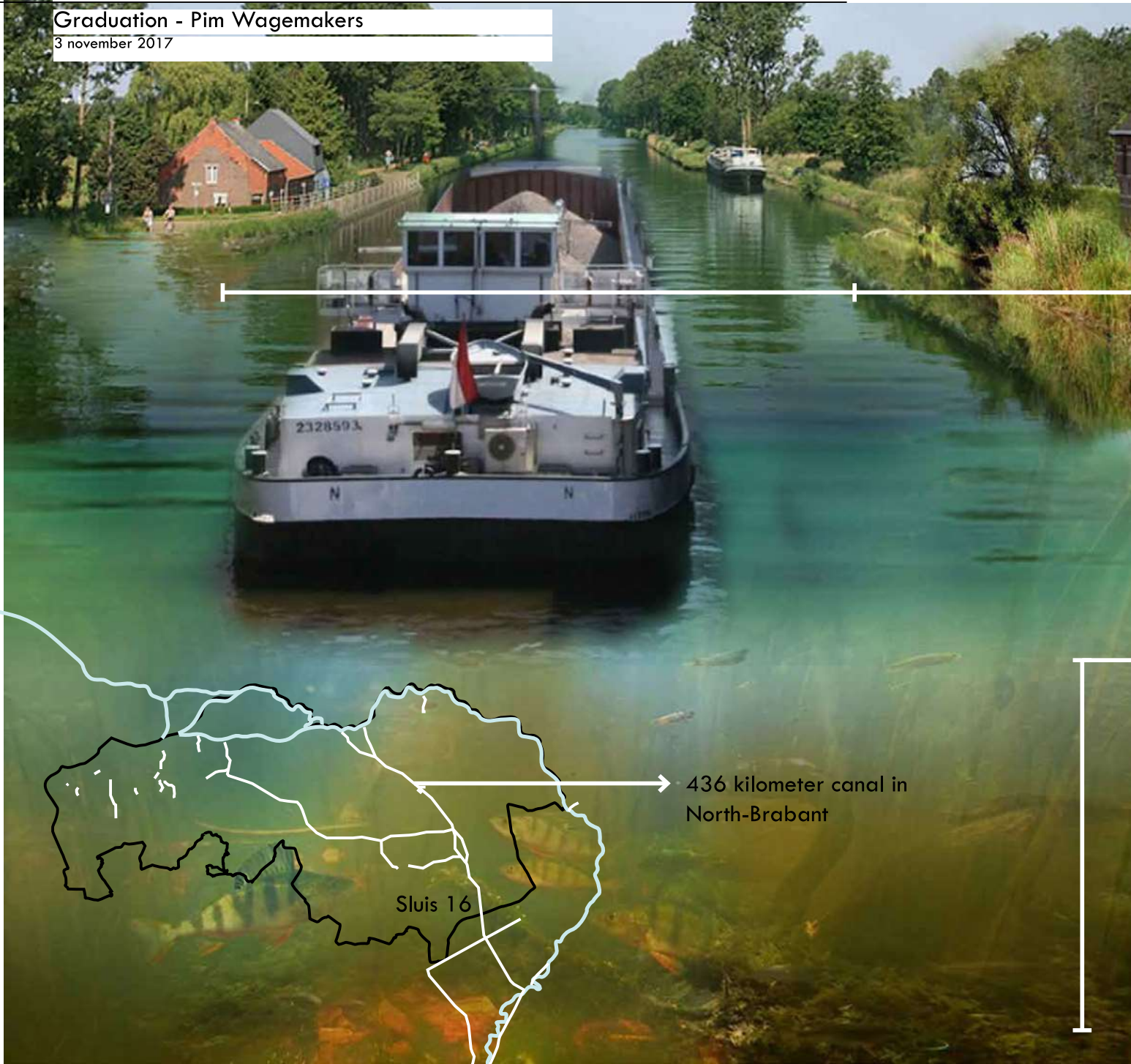
Space is 3,9 km² space canals

Space is 390.00 hectaren canals

The system - size in numbers

Graduation - Pim Wagemakers

3 november 2017



Generally 35 meters wide
(between 24 and 48 meters)

Generally 2,9 meters deep
(between 2 and 4 meters)

Total amount of water in canals:
30.520.000 m³ space
30.520.000.000 liter water

Sluis 16 (Lock 16)
Yearly 2728 commercial ships
(Maas river 15613 commercial ships)

436 kilometer canal in
North-Brabant

Sluis 16

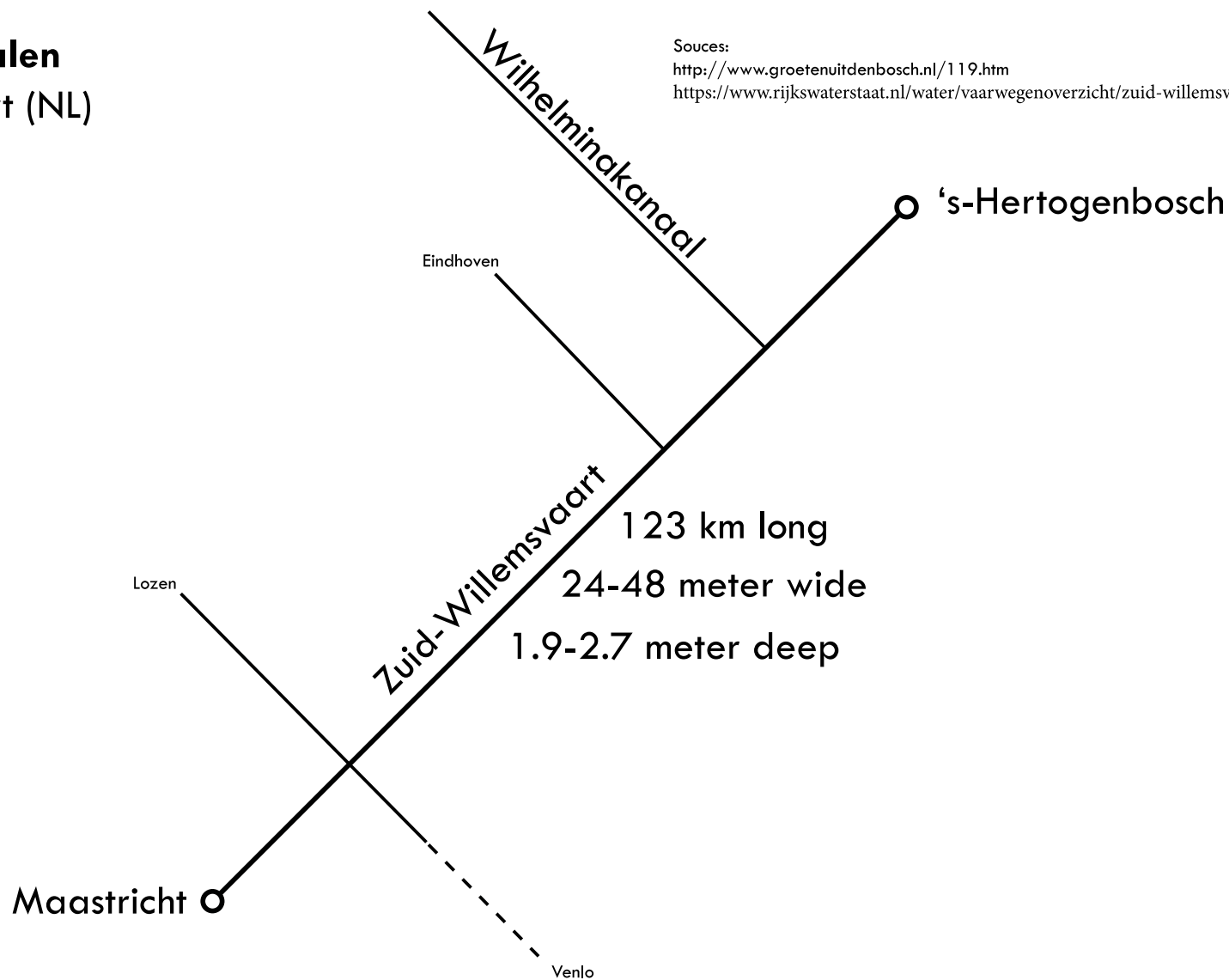
Fact sheets kanalen

Zuid-Willemsvaart (NL)

Sources:

<http://www.groetenuitdenbosch.nl/119.htm>

<https://www.rijkswaterstaat.nl/water/vaarwegenoverzicht/zuid-willemsvaart/index.aspx>



Building reason:

- Economical impuls region
- Shortcut from Maas (-Military transport for Napoleon)

Age and initiative:

- 1802 first idea Napoleon
- 1822-1826
- Willem 1 (de kanalenkoning)

Current use:

- Professional and recreational

Pending projects:

- Kanaal park Den Bosch

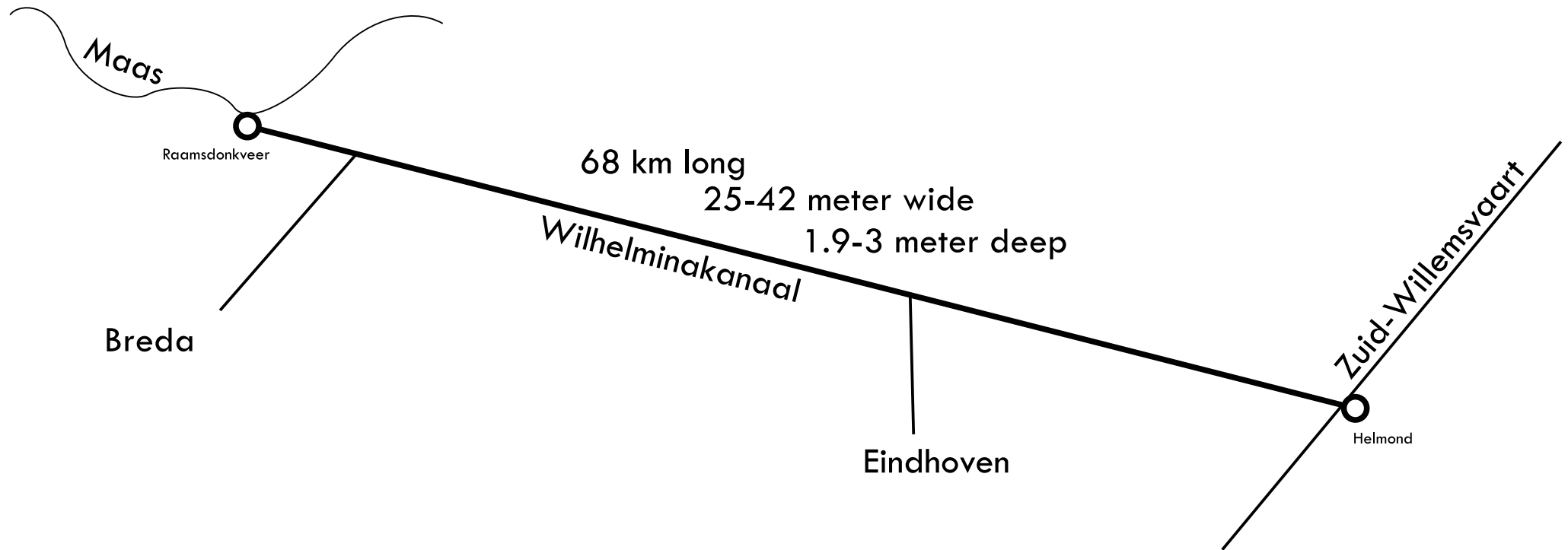
Fact sheets kanalen

Wilhelminakanaal (NL)

Sources:

<https://www.rijkswaterstaat.nl/water/vaarwegenoverzicht/wilhelminakanaal/index.aspx>

<http://www.binnenvaartinbeeld.com/nl/wilhelminakanaal/wilhelminakanaal>



Building reason:

- Textile industrie in Tilburg (Coal en Textile)

Age and initiative:

- First idea 1794 (Not build because of war with France)
- 1910-1923

Current use:

- Professional and recreational

Pending projects:

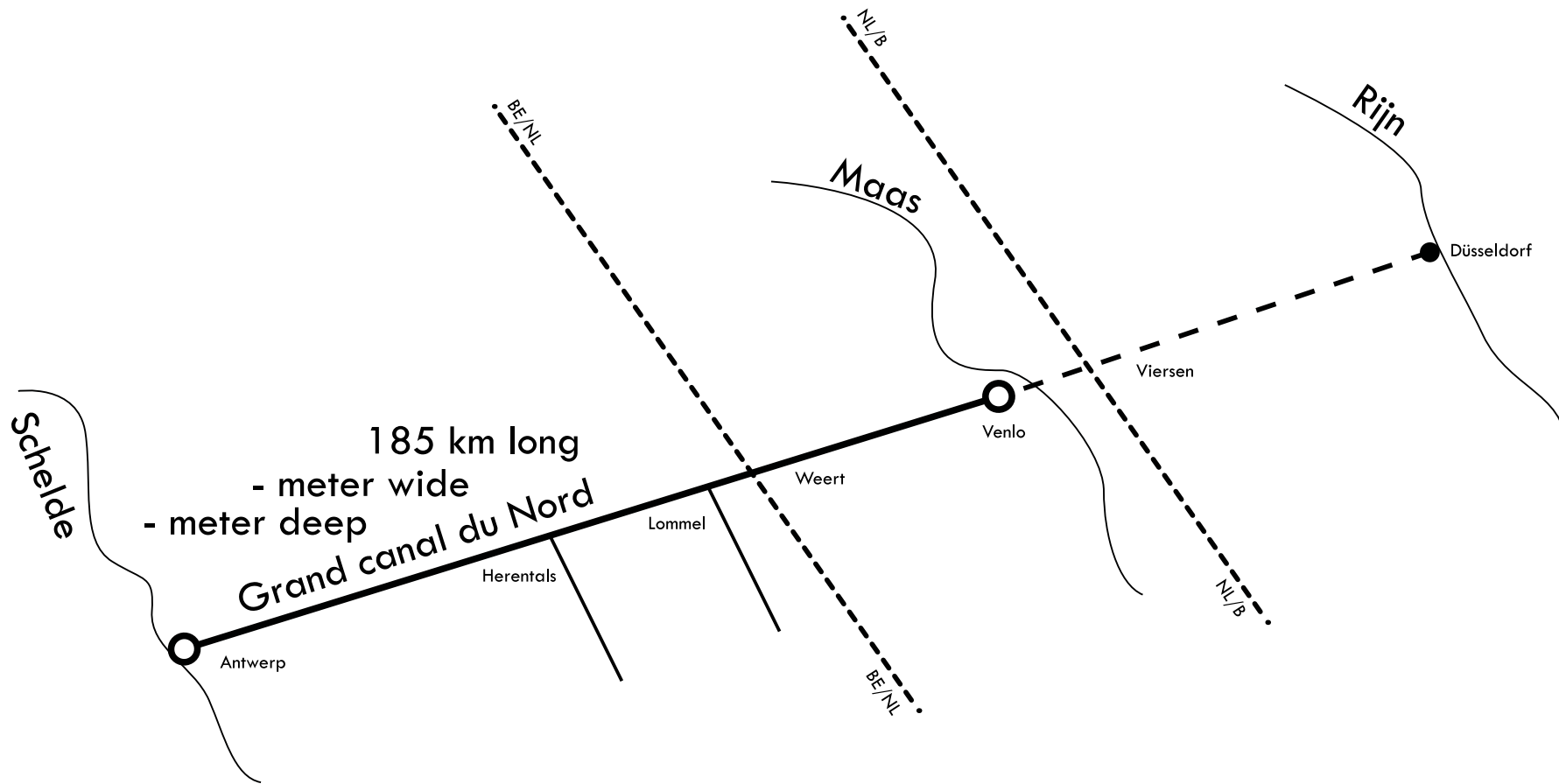
- Sluis 3 (new locks)

Fact sheets kanalen

Grand canal du Nord (B, NL, D)

Sources:

http://www.binnenvaartinbeeld.com/nl/grand_canal_du_nord/grand_canal_du_nord



Building reason:

- Cheap and fast transportation toward Antwerp

Age and initiative:

- 1803-1810
- Napoleon

Current use:

- Professional and recreational

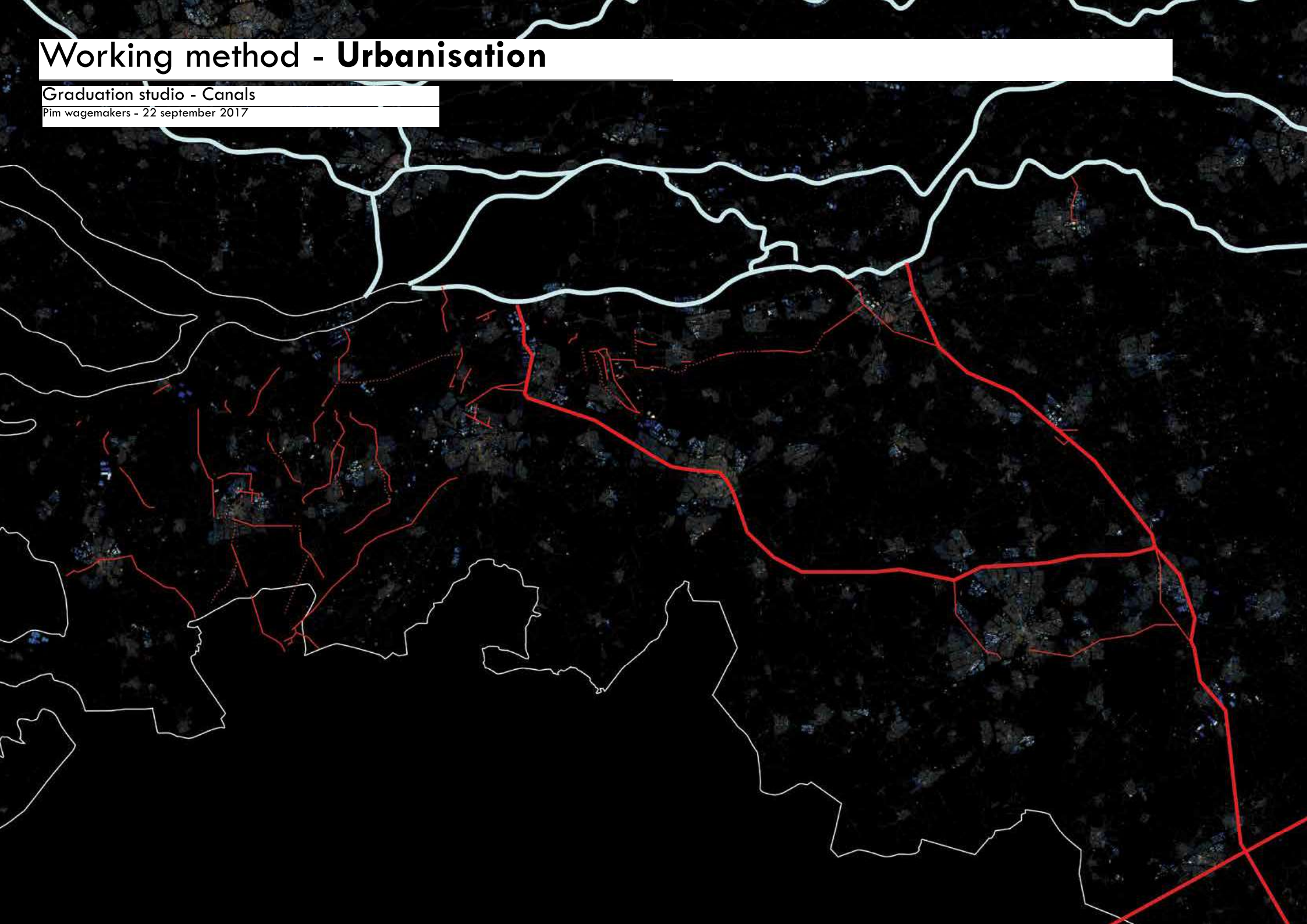
Pending projects:

-

Working method - **Urbanisation**

Graduation studio - Canals

Pim wagemakers - 22 september 2017



Analyses

- Canal gone

2 canal types

- under the ground

- identity

- delta networks

Canal gone ●

Canal space size
Big



1-3. The Zuid-Willemsvaart around Lock 13 can easily be reduced to nothing more than a provincial road.
4. The Zuid-Willemsvaart around Lock 13 can easily be washed away from the landscape restoring the Mozalek-landscape.

Canal space size
Big



1-3. The Zuid-Willemsvaart in Helmond can easily be reduced to nothing more than a unclosureroad.
4. The Zuid-Willemsvaart in Helmond can easily be washed away connecting the neighborhoods.

Kanalen

Het verbindend element

Legenda

Steden

Recreatieve natuurgebieden

beken en kanalen op de achtergrond

Legenda

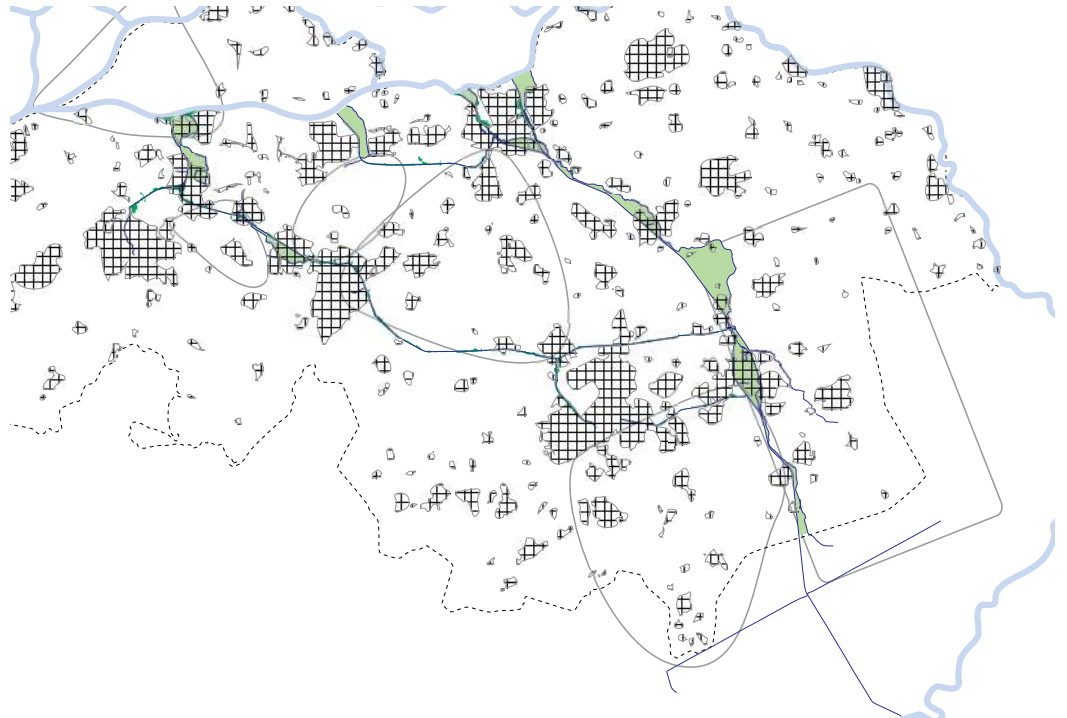
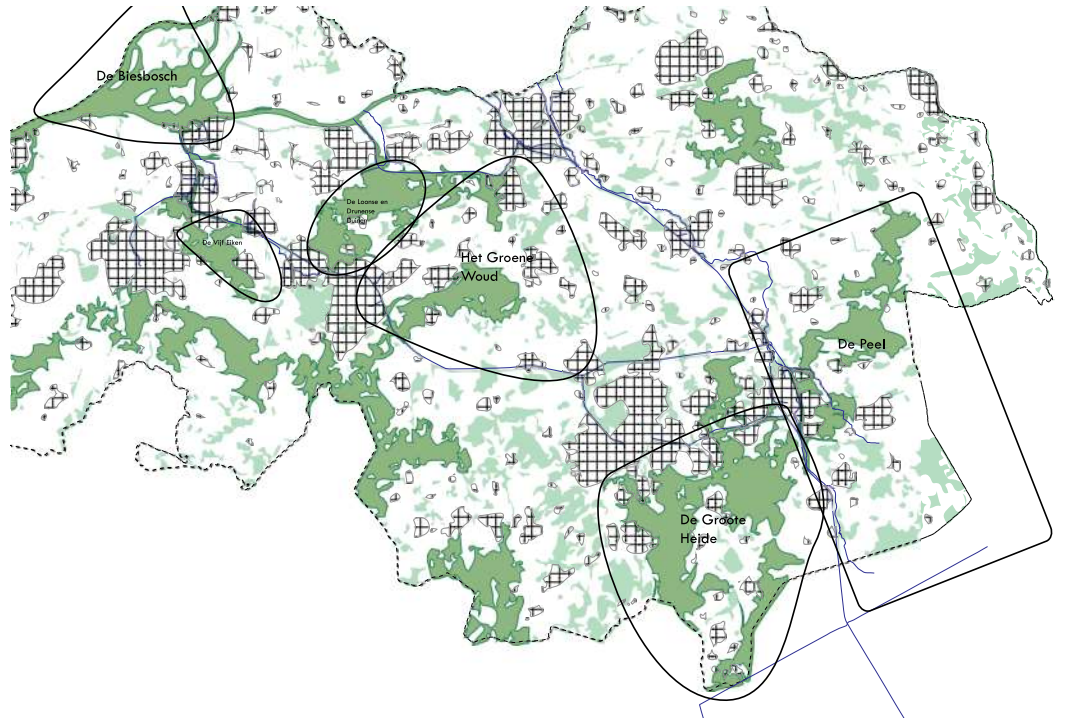
Steden

Recreatieve natuurgebieden

Brabantpark

Kanalen

Beken op de achtergrond



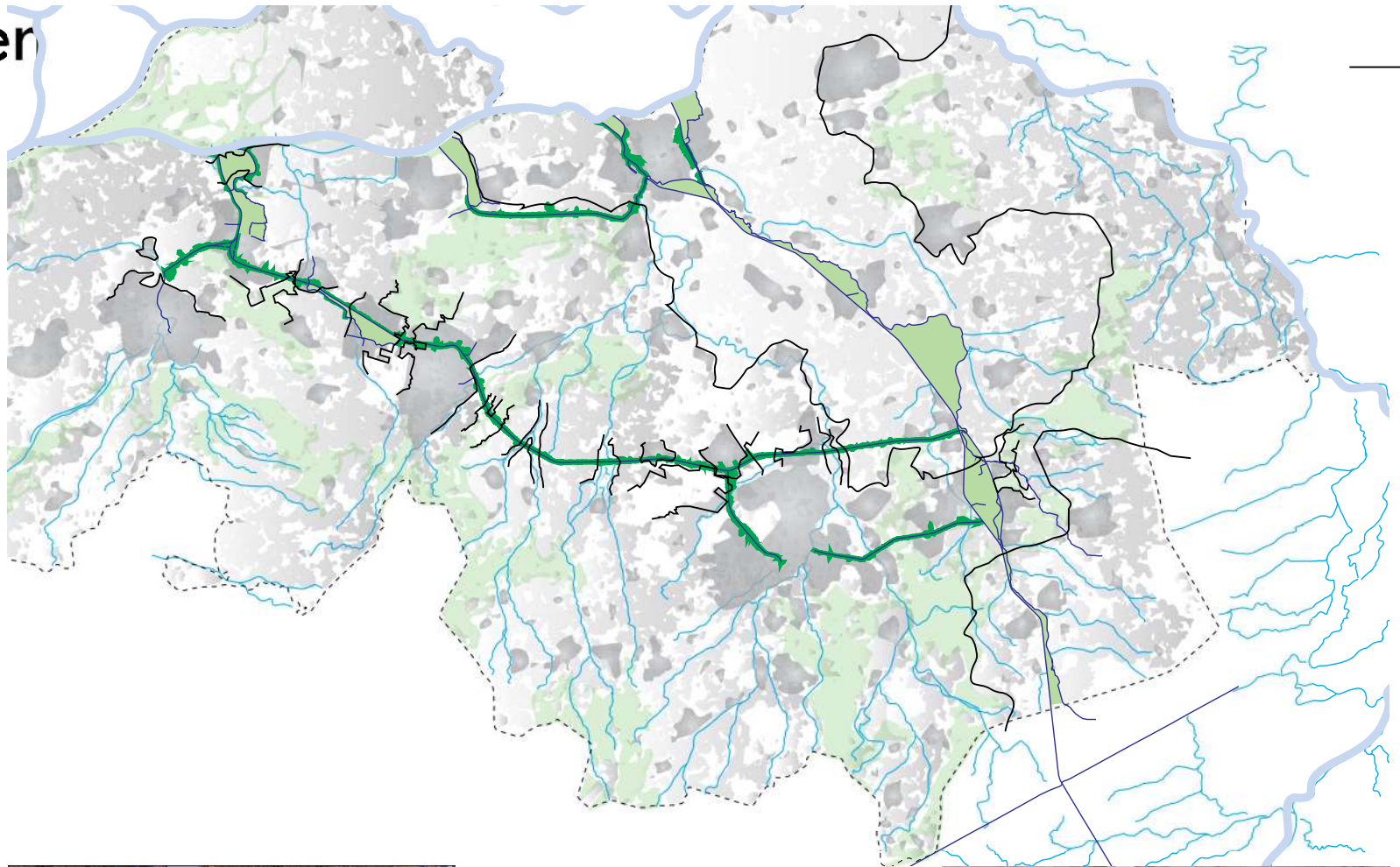
Karakteristieken

Met en door het landschap.

Legenda

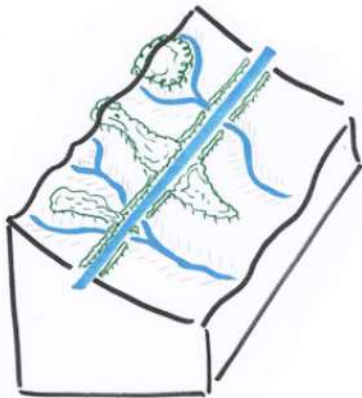
Brabantpark
Kanalen
Beken
Grenzen van entiteiten

Op achtergrond:
Recreatieve natuurgebieden
Steden
Landbouwgebieden



Crosssection

Wilhelminakanaal volgt hoogtelijn



Crosssection

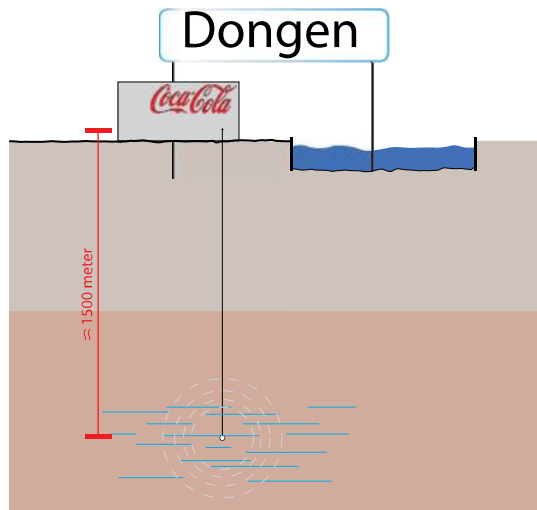
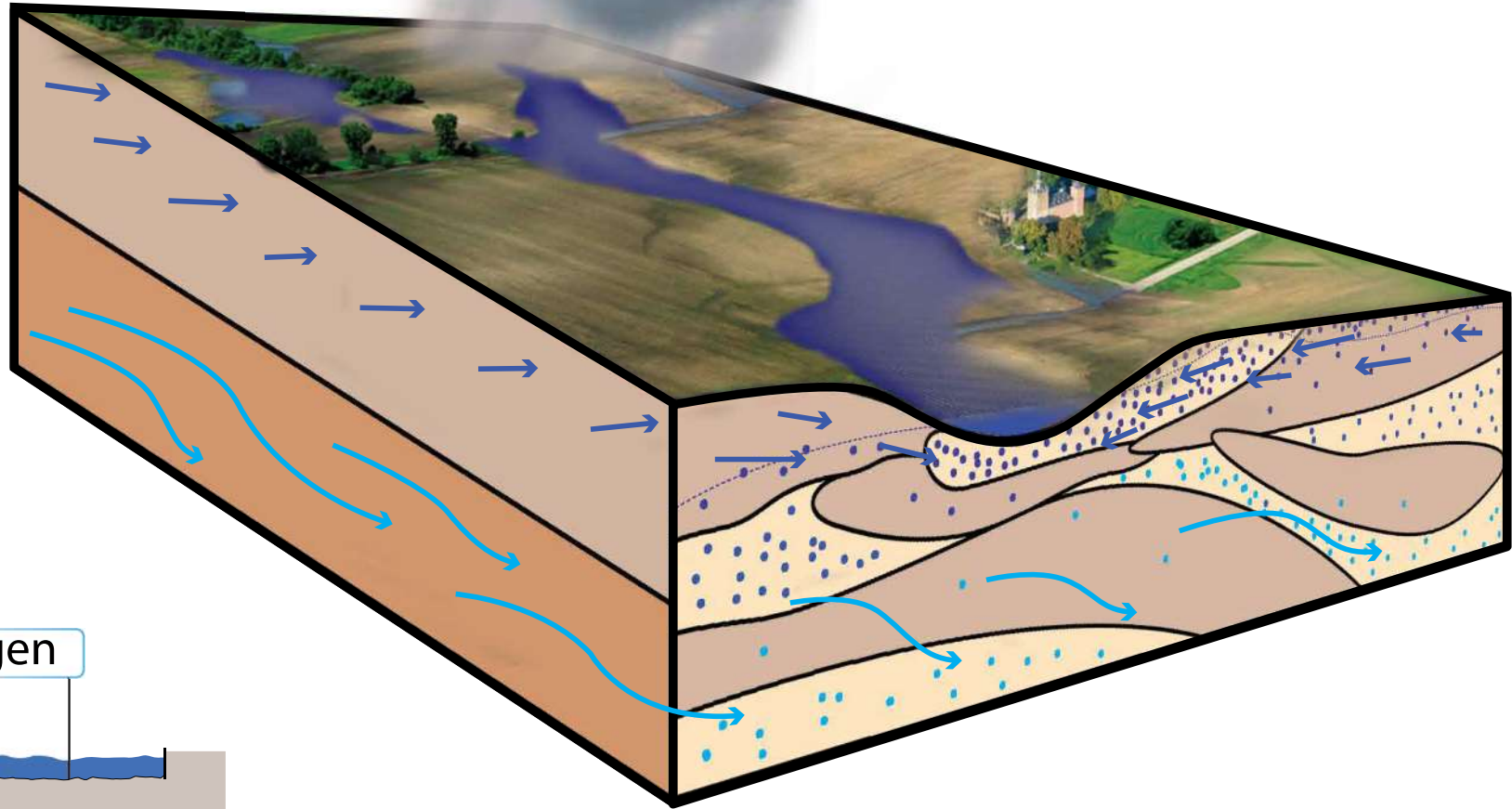
Zuid-Willemsvaart volgt dal van rivier de Aa



Working method - Soil compilation

Graduation - Pim Wagemakers

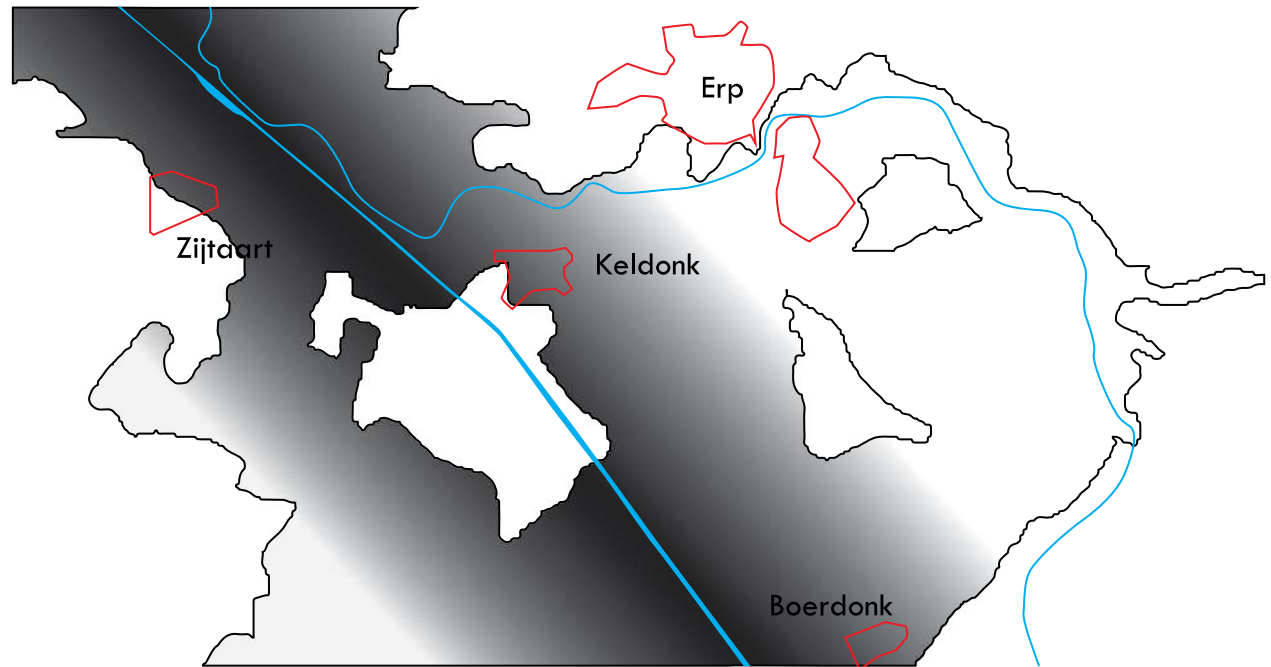
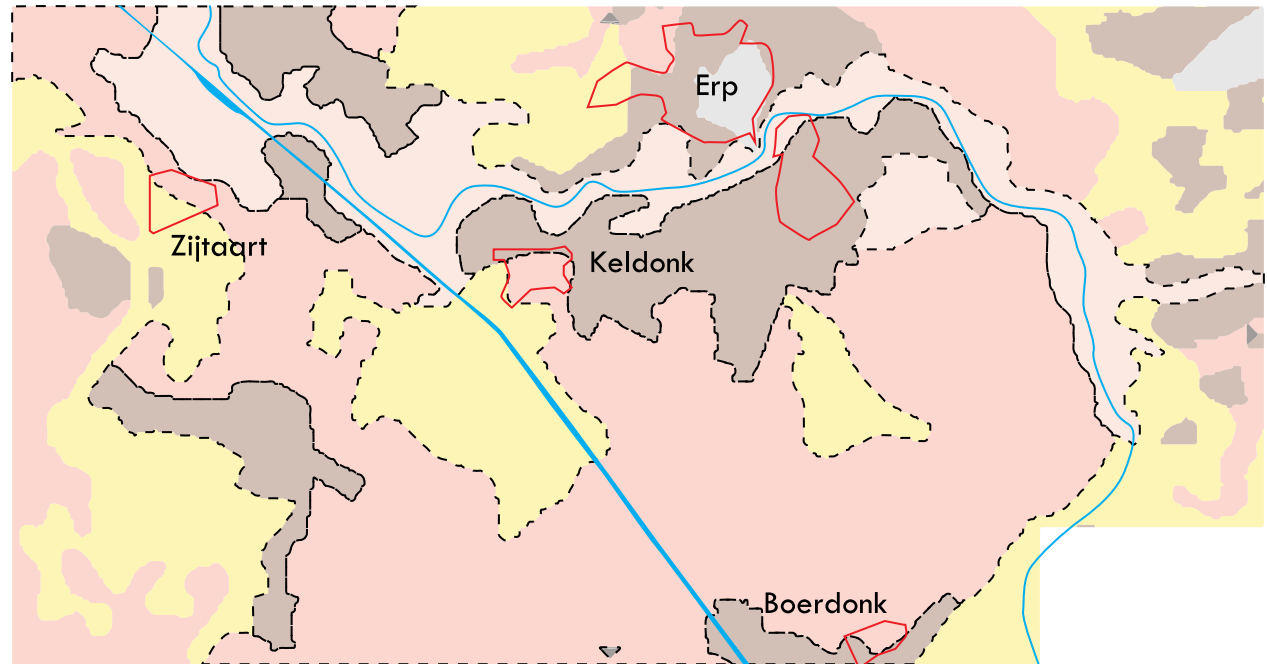
3 november 2017



Working method - Villages

Graduation studio - Canals

Pim wagemakers - 22 september 2017



Spatial identity - De definitie

Graduation studio - Canals

Pim wagemakers - 24 september 2017

ka·naal

(het; o; meervoud: kanalen)

1, gegraven waterweg

2, middel om iets ergens te brengen

3, frequentie (3) van een radio- of televisie-uitzending:

Kanaal 2 commerciële tv-zender in België het Kanaal zee-engte tussen

Engeland en Frankrijk

channel

noun (PASSAGE)

A passage for water or other liquids to flow along,

or a part of a river or other area of water that is deep and wide enough to provide a route for ships to travel along.

Onverstoorbaar liggen de kanalen op het landschap (namelijk aquaduct). **Gelijkmoedig** altijd in de zelfde vorm, overal de zelfde snelheid, recht-door tussen de steden in (niet naar de havens, die worden veelal negeert). **Stoïcijns** zijn de kanalen een wereld op zand (ondergrond kanalen) en een maatschappij op het water (schippers zijn zelfstandige ondernemers).



sto·ï·cijns

(bijvoeglijk naamwoord, bijwoord)

onverstoorbaar, gelijkmoedig

stoic

(adjective)
Uk, also stoical,

Determined not to complain or show your feelings, especially when something bad happens to you:

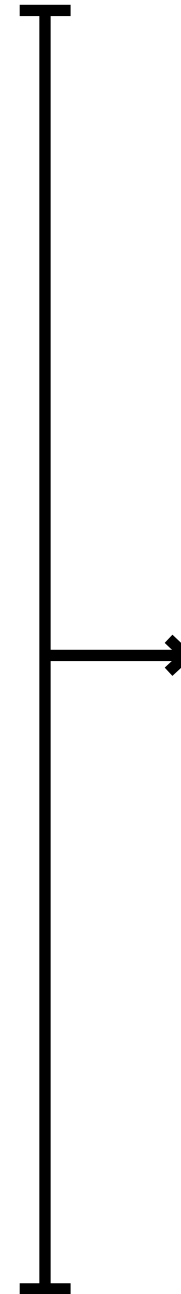
We knew she must be in pain, despite her stoic attitude.
He showed a stoic resignation towards his fate.
Local people were stoical about the damage caused by the hurricane.

Introvert

Zelfstandig

Geen verbinding zoekend

Afgekeerd van de context.



Emotioneel

(bijvoeglijk naamwoord)

Geageerd, betrokken, gevoelig

Emotional

(adjective)

Relating to a person's emotions.

'gaining emotional support from relatives'

1.1 Arousing or characterized by intense feeling.
'an emotional speech'

1.2 (of a person) having feelings that are easily excited and openly displayed.
'he was a strongly emotional young man'

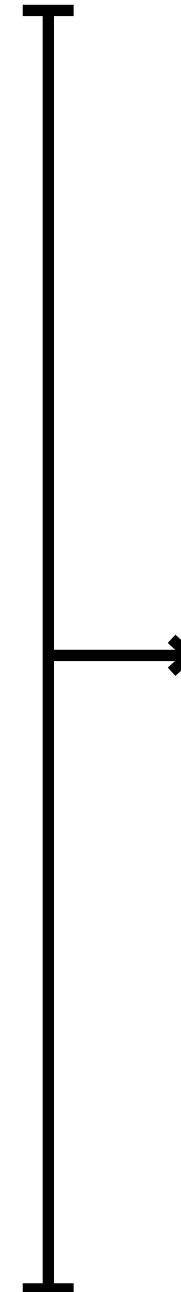
Extrovert

Steun zoekend

Delen

Verbinden

Zoeken



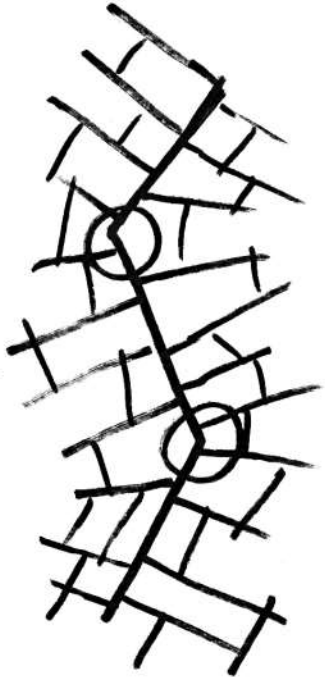
Geageerd liggen de kanalen in het landschap. Betrokken in een altijd veranderende vorm, snelheid gevoelig voor de omgeving, rechtdoor tussen de steden in. Emotioneel zijn de kanalen een deel van het landschap en maatschappij.

Spatial identity - In vorm

Graduation studio - Canals
Pim wagemakers - 24 september 2017

Geageerd

in het landschap.



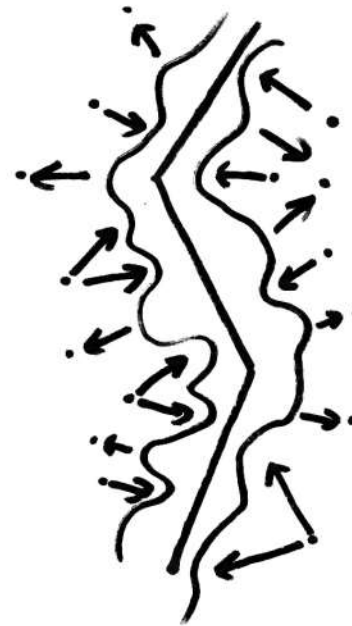
Betrokken

in een altijd verranderende vorm.



Gevoelig

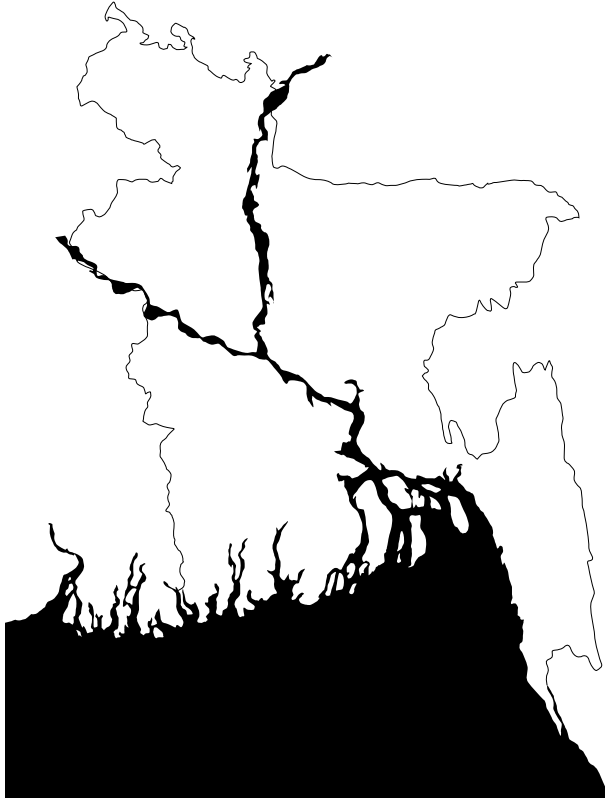
voor de omgeving.



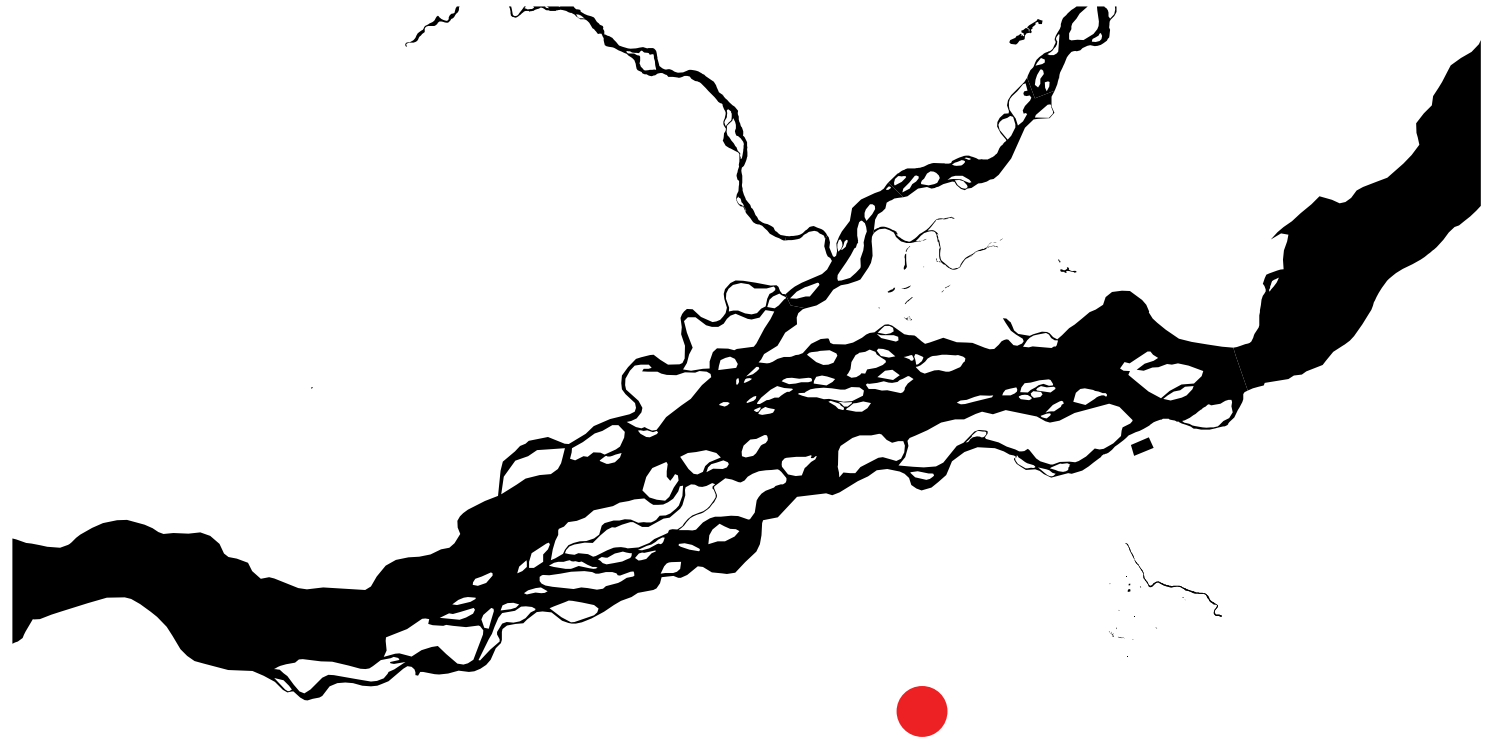
Form research. Delta's - Inventarisation 1/3

Graduation - Pim Wagemakers
10 november 2017

Bangladash



Brahmaputra (close by Jorhat)



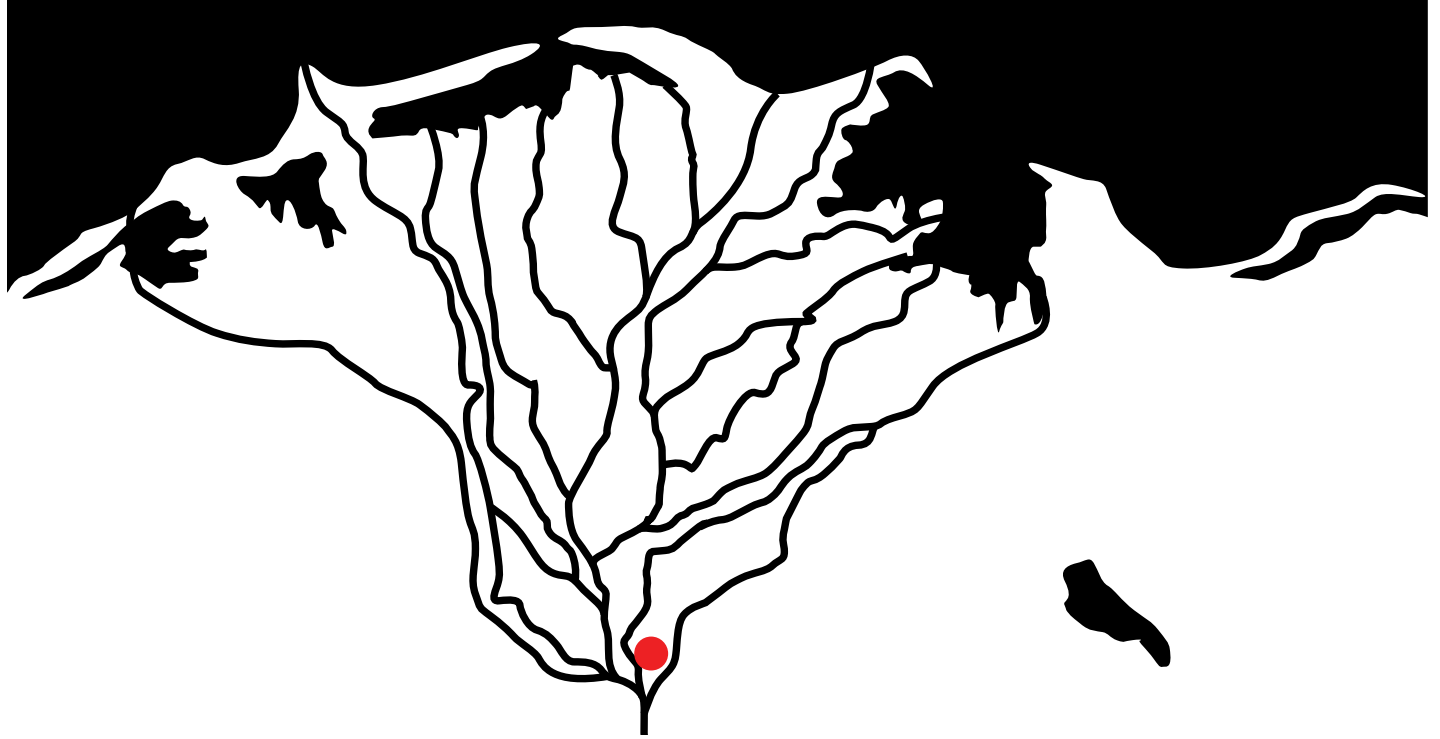
Form resuarch. Delta's - Inventarisation 2/3

Graduation - Pim Wagemakers
10 november 2017

Egypt



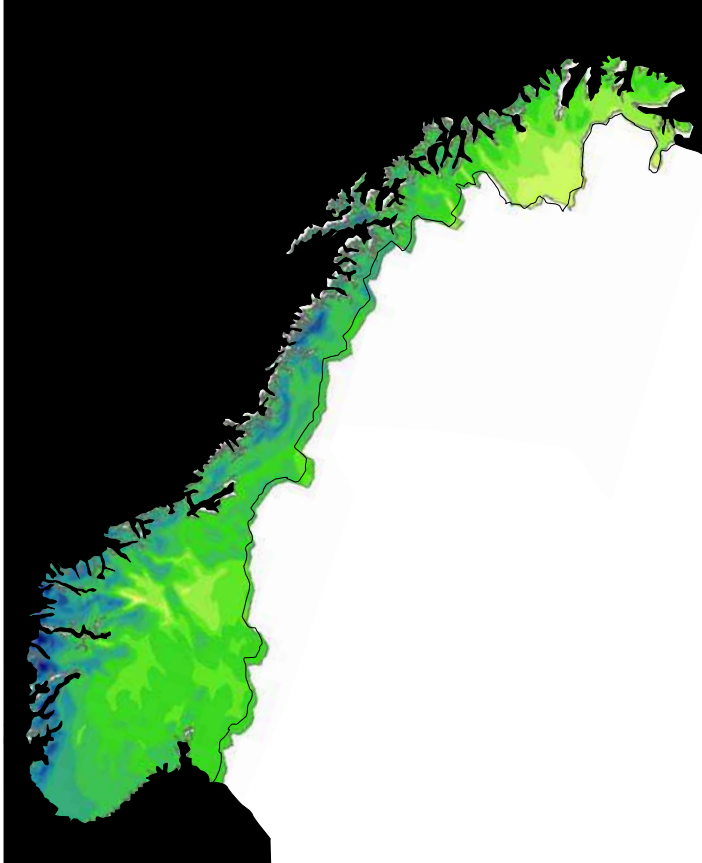
Nijl



Form research. Delta's - Inventarisation 3/3

Graduation - Pim Wagemakers
10 november 2017

Noorwegen



Sogndal



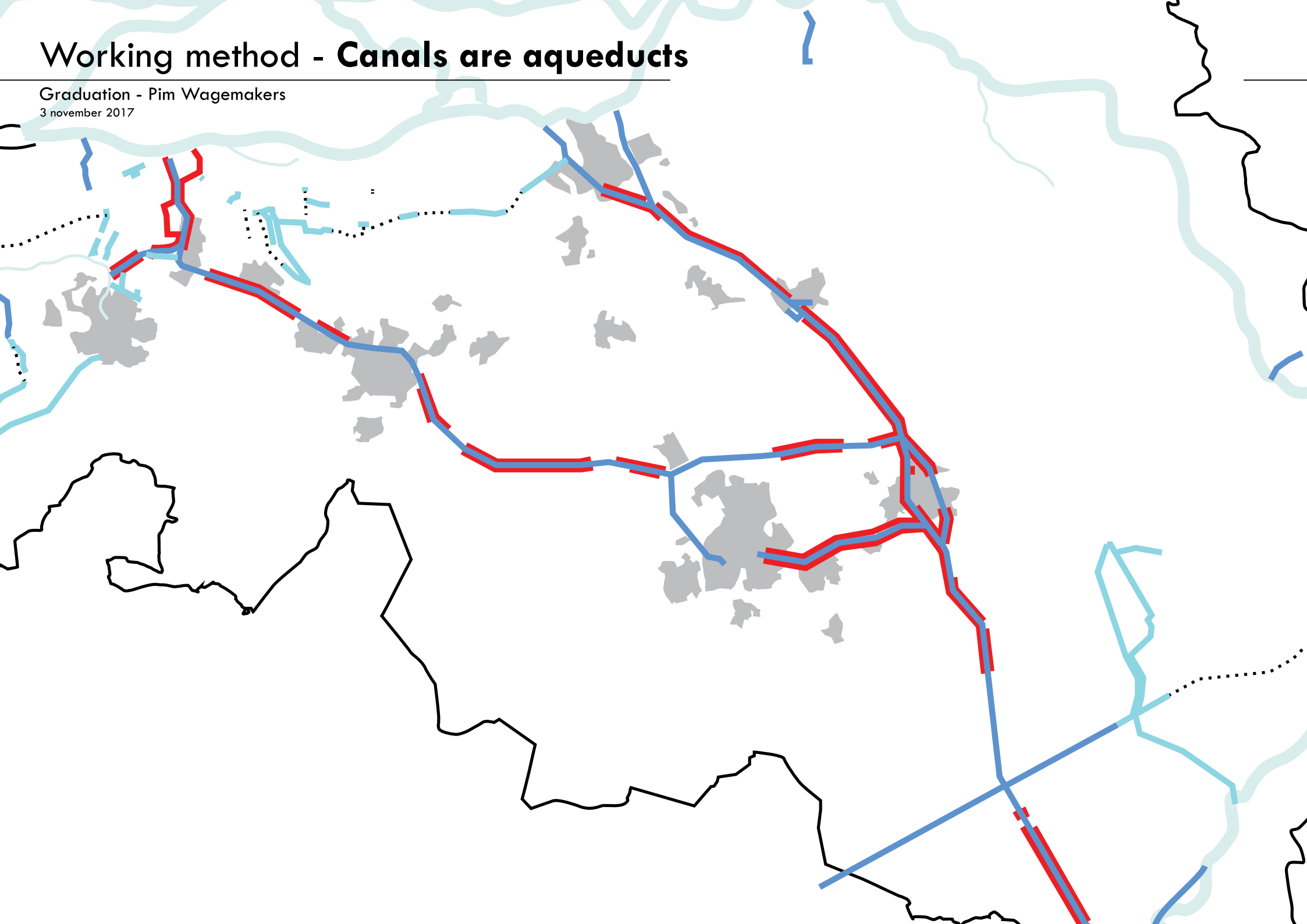
Concept

- Aqueducts
- Spaces and places
- Taxi concept
- Multi use concept

Working method - Canals are aqueducts

Graduation - Pim Wagemakers

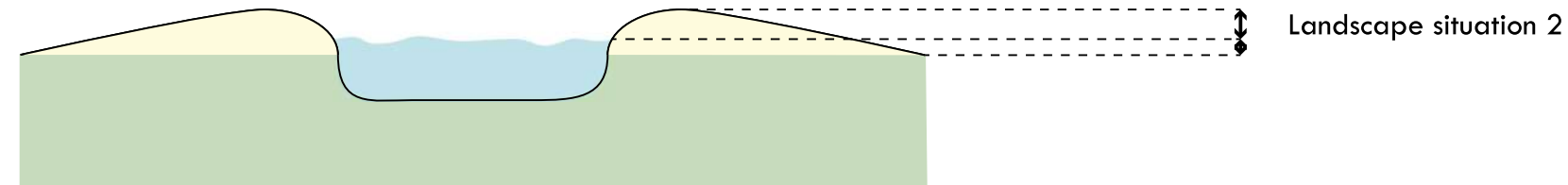
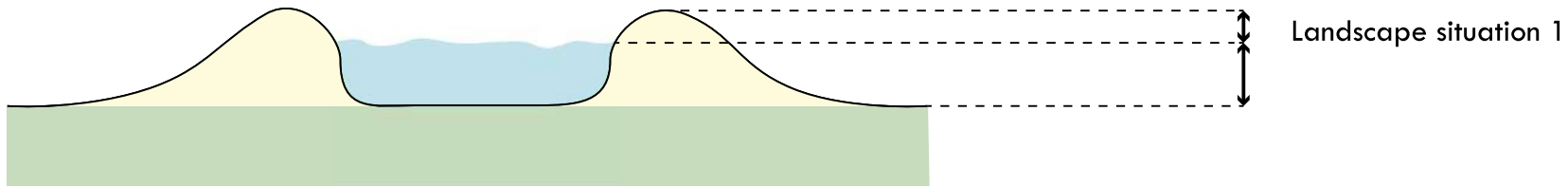
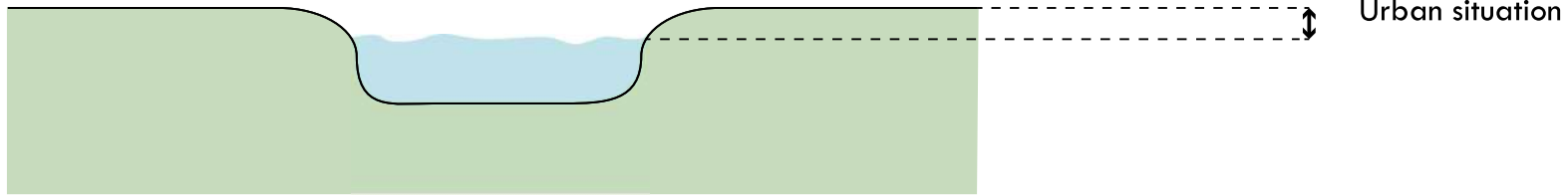
3 november 2017



Working method - Height differentiation

Graduation - Pim Wagemakers

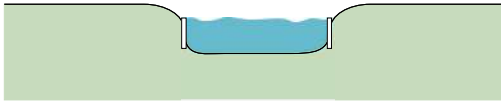
3 november 2017



12a.

Analyse Kwelwater (het middel): Samenwerken met een normaal ongewenst verscheinsel.

A.



Huidige stedelijke en landschappelijke rug situatie

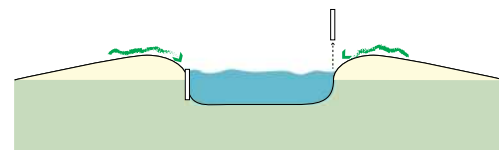
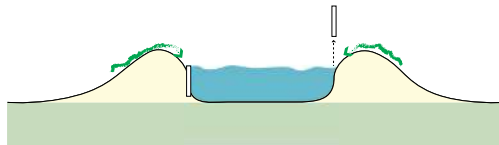
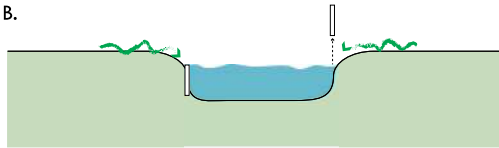


Huidige landscape situation 1, in rivierdalen



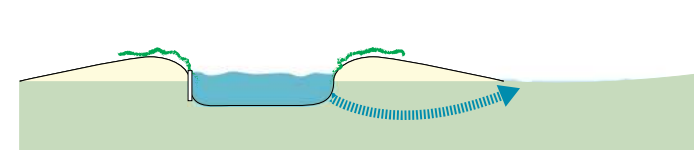
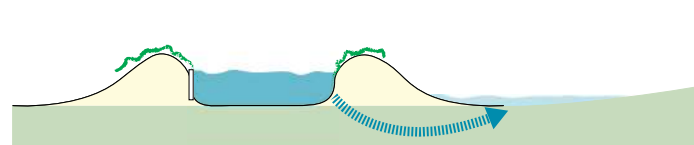
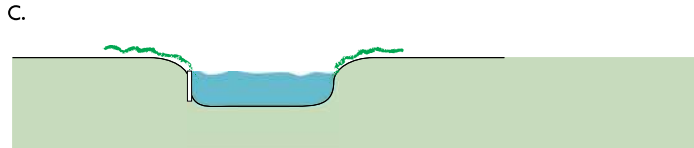
Huidige landscape situation 2, tussengebieden

B.



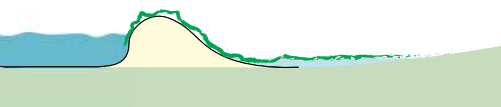
Damwanden verwijderen, introductie natuurlijke oevers

C.



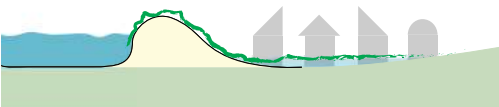
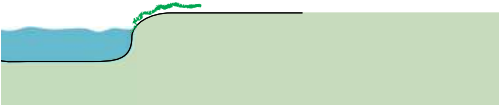
Natuurlijke oevers staan het ontstaan van kwelwater toe aan de hoge kant van het kanaal. Niet bij rivieren of de lage zeide omdat anders een nieuwe volwaardige dijk noodzakelijk is. Nu is alleen een grondwaterkering noodzakelijk om ervoor te zorgen dat het kanaal niet tever leeg loopt.

D.



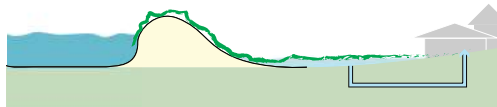
Groen ontwikkeling in kwelwatergebied.

E.



Wonen in kwelwatergebieden.

F.



Door de combinatie van (water)planten en kwelwater ontstaat er een natuurlijk waterzuiverings effect dat schoon water levert aan boeren bedrijven in de omgeving van Brabantpark.

Ruimtes en plekken

Kansenkaart

Legenda

Brabantpark

Kanalen

Beken

Opgave gebieden

- Brabantpark in de stad

Opgave locaties

- uiteinden (hier vind namelijk de kruisbestuiving plaats, het kanal neemt kwaliteit mee de stad in)

- kruispunten (speciale punten, nu onbereikbaar)

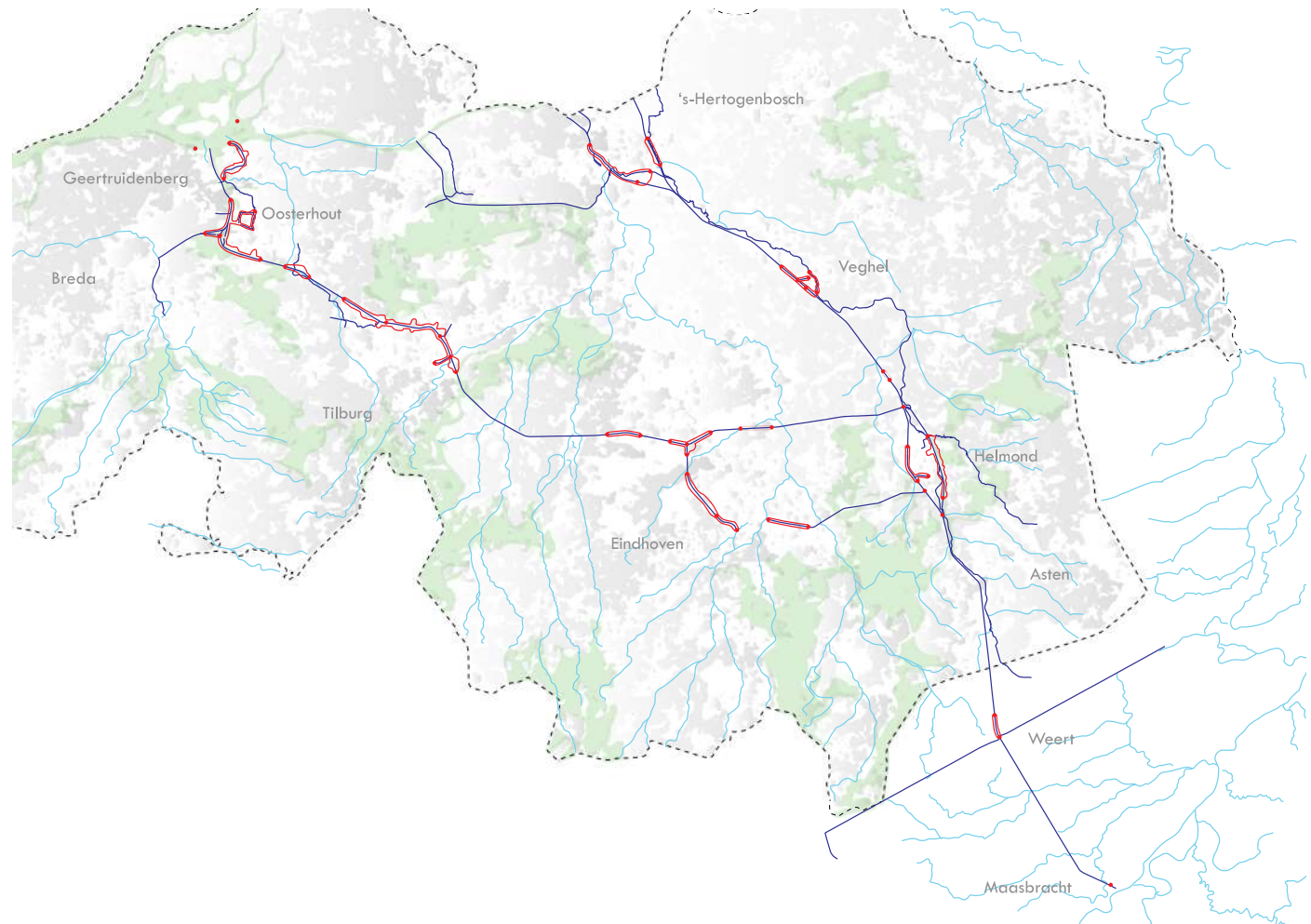
- begin van stedelijk gebied (stedelijk reactie met de kanalen)

Op achtergrond:

Recreatieve natuurgebieden

Steden

Landbouwgebieden



ALLE KNOOPPUNTEN TOEVOEGEN ALS EXTRA TYPE
OPGAVE BINNEN DEZE OPGAVE (STUKJE PRO-
GRAMMA IS HET IN FEITEN VOOR DEZE OPGAVEN.

Ruimtes en plekken

Illustration of possibilities (design experiments)

Legenda (ontwerpje/experiment op locaties)

Water
- kanaal
- beek
Groen
Bebouwing
Wegen

Speciaal aspect van ontwerp op locatie

Collage:

- Toepassing Brabantpark

3 Fases

Big win's before spin-off projects

1. Places in urban environment

- places become ambassadors of Brabantpark

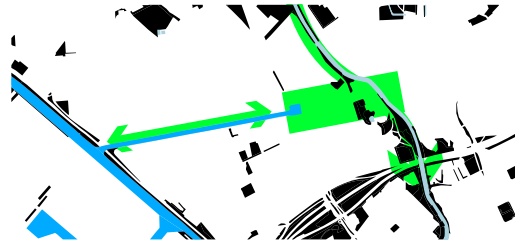
2. area's in Urban environment

- parc's connect the ambassadors and develop Brabant park in the city

3. rural area projects

- The new attraction of the networks and connections made by Brabantparc are sparking new initiatives around it, the canals get known and people will think of there possibilities.

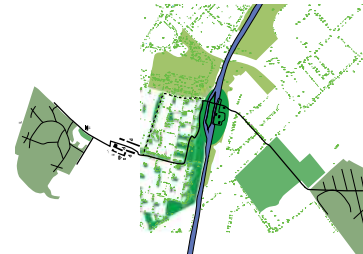
Fase 1 a - Brabant park rondjes



Veghel

Twee kanten van Brabantpark samenvoegen voor de creatie van de route "rondje Veghel" waarin de volledige geschiedenis van Veghel naar voren komt en de kanaal, rivier en dal relatie die brabant park vertegenwoordigt.

Fase 1 b - Places



Tilburg

Sluis 3 als middelpunt van plaatselijke wijk routes en gemeente breede routes tussen waardevolle natuurgebieden. Dit maakt Sluis 3 als plek een samenkost van recreatieve routes en op elk schaalniveau in Brabantpark en word de relatie aangegaan met de stad, kanaal en ecologie.



Den Bosch

Handel, wonen, en ontmoeten op, langs en in het water op een flexibele community structuur in de Ertveld-plas waar de economische, ecologische en recreatieve lagen van brabantpark samen komen.

Fase 2 - Urban kanal zones



Best

Rust en ruimte, de hoofd kwaliteiten die brabant park de stad mee in neemt, toepasse op werk locaties ter baten van de creatie van een aangename werkplek.



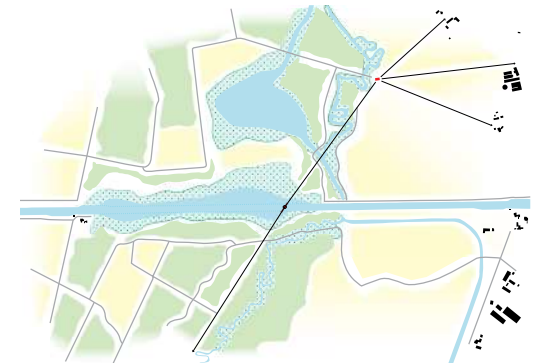
Helmond

Urbane gebieden hebben uitdagingen in de relatie met de stad tot het water. Door water en de stad een meerwaarde voor elkaar te laten hebben op klimatologisch en ruimtelijk gebied word de relatie die de veelal ex industrie steden hebben met dit industriele netwerk heruitgevonden.



Haghhorst

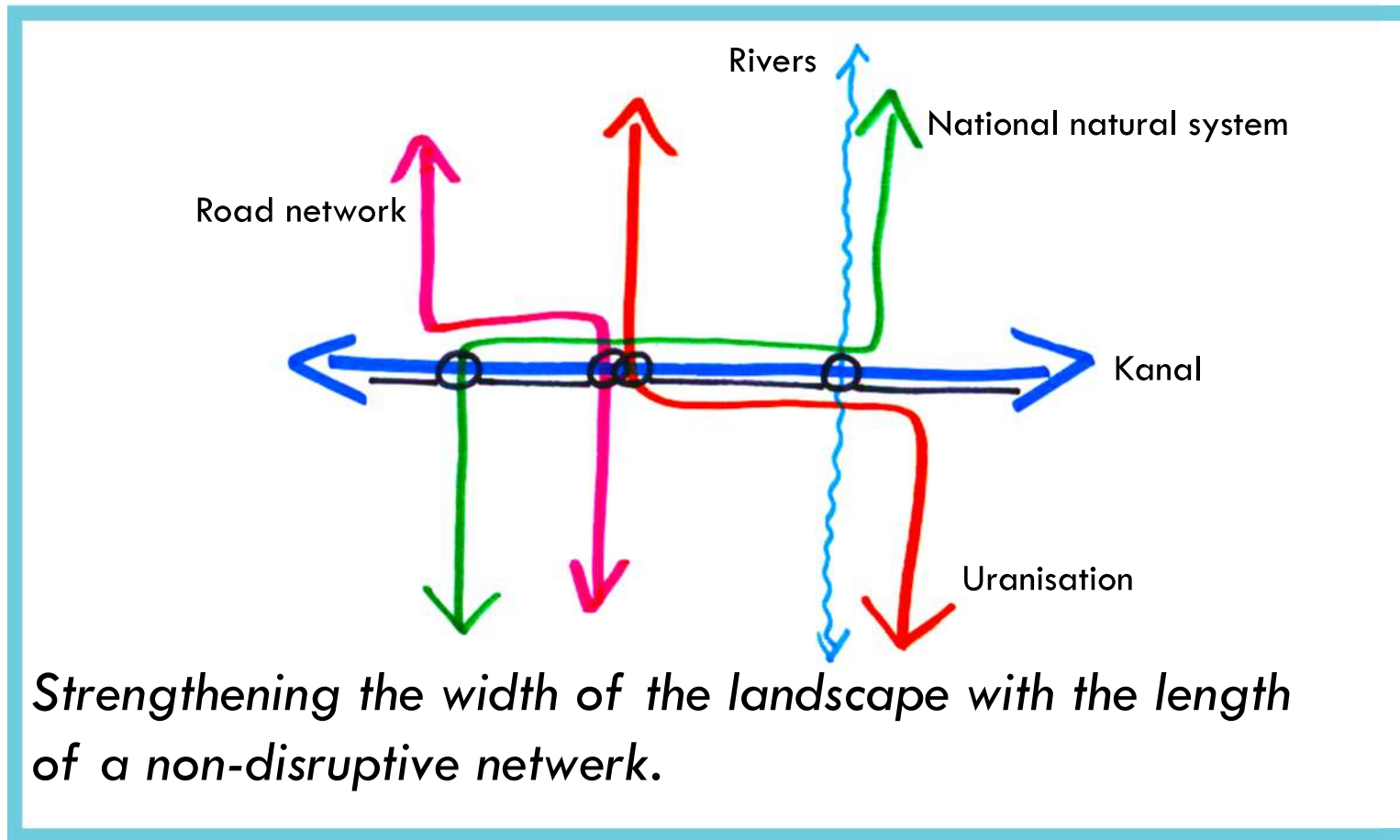
Kwel water gebieden als watervoorziening voor de boeren met de mogelijkheid tot muti-use van het land-schap. Water onder voor vissen kweek en planten kweken op het water met als extra spinn of gezuivert water omdat het landbouw gebied functioneerd als een heliofytenfilter.



Groene Woud

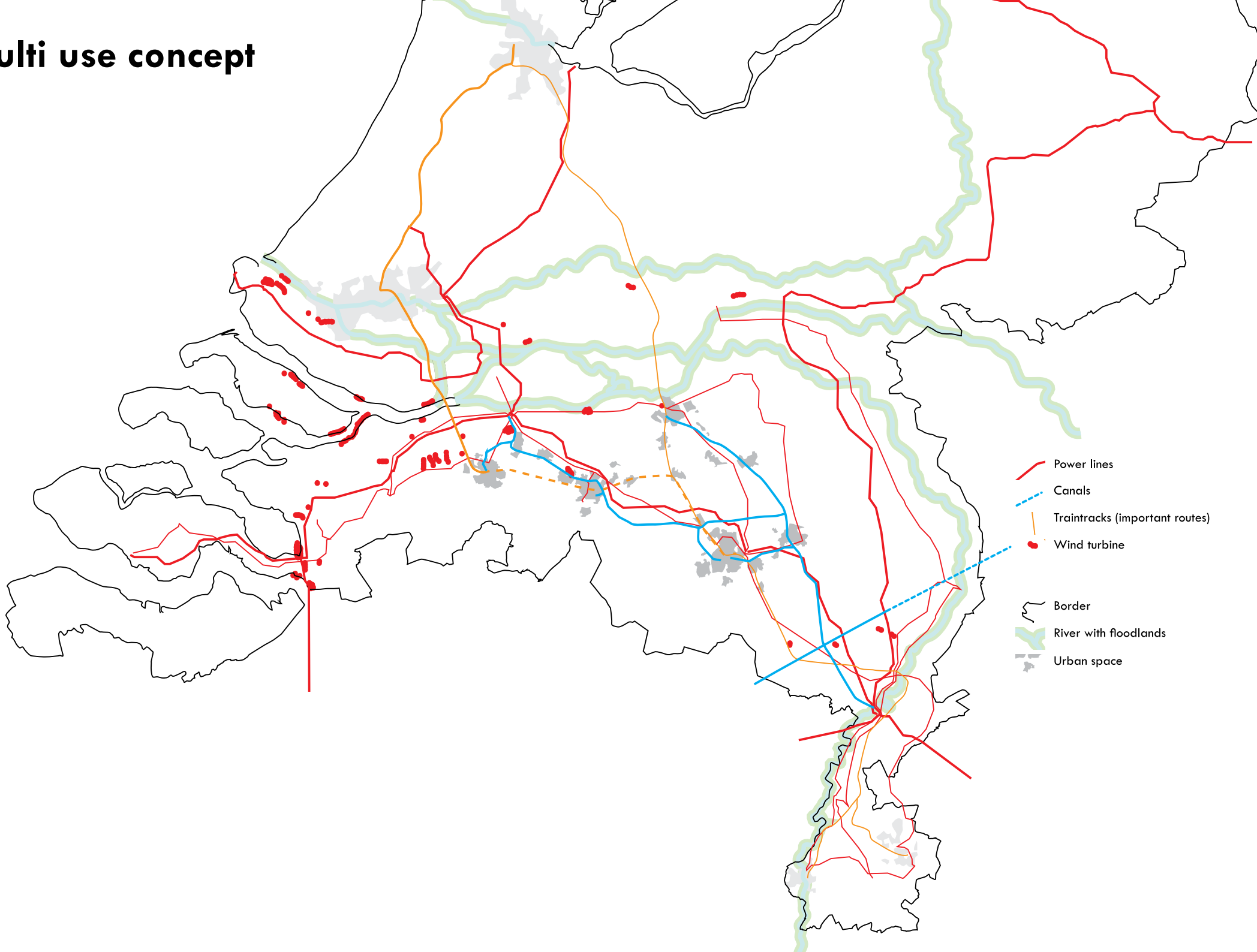
Door de stalen oevers te vervangen voor natuurlijke moeras waterkanten ontstaat er een directe relatie met de omliggende natuurgebieden en een sterke flora en faune relatie.

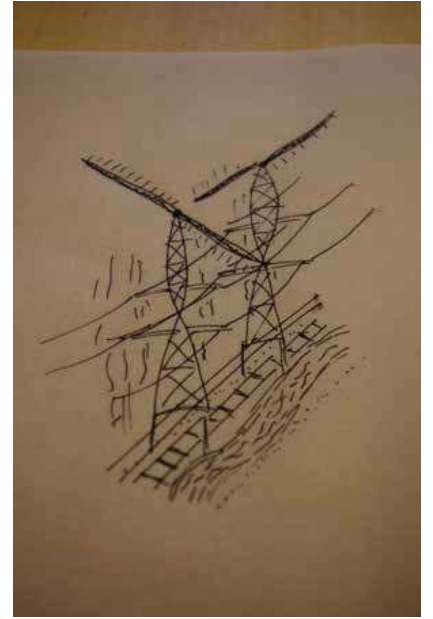
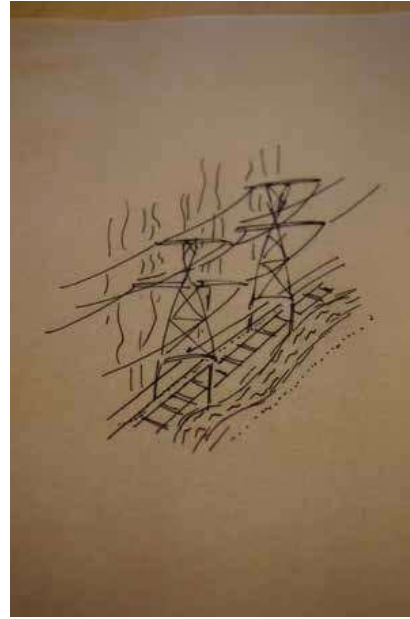
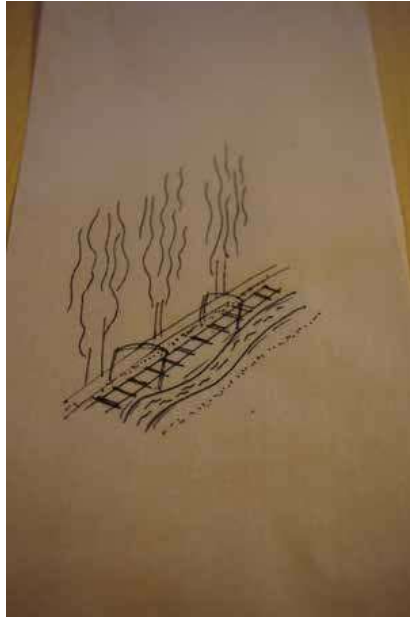
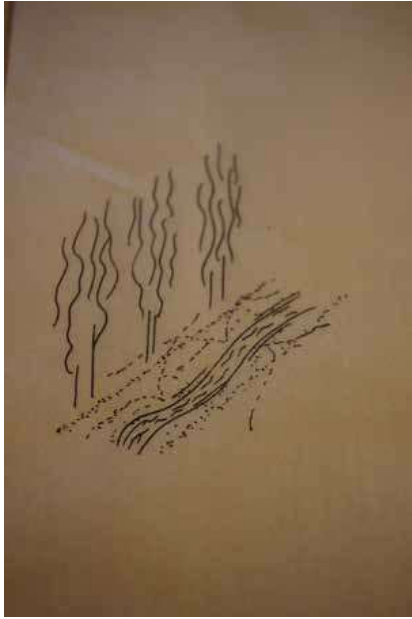
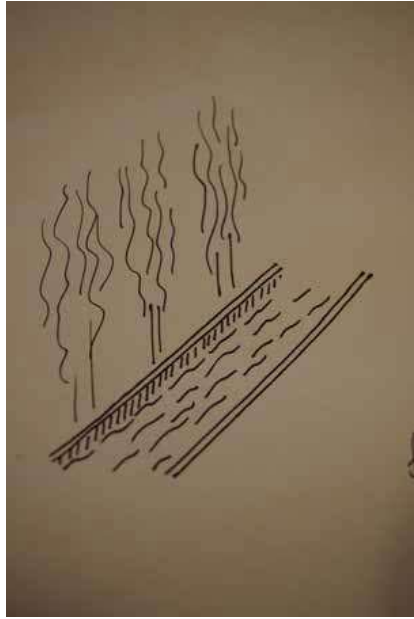
Taxi Concept

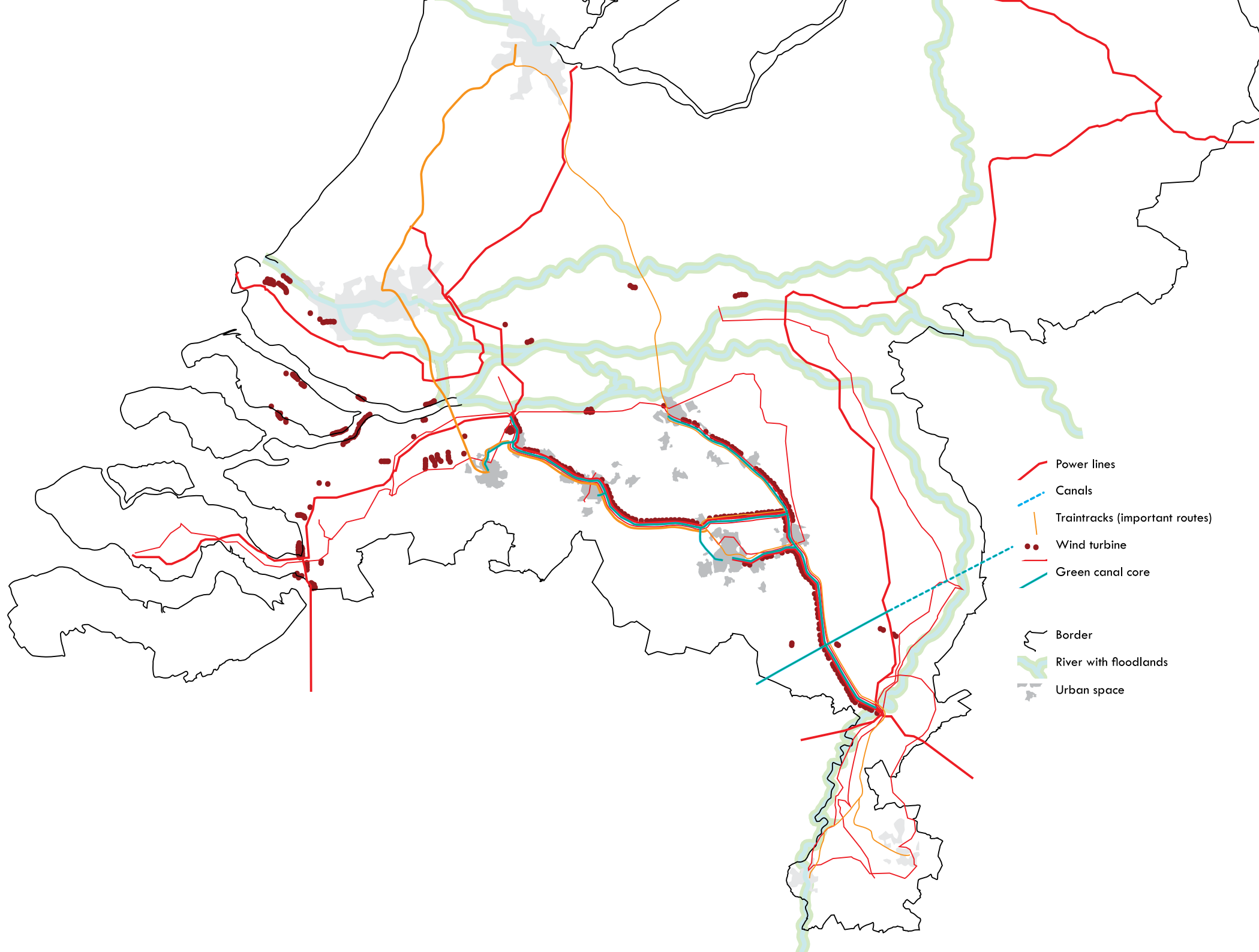


Vanuit de lengte van een non-destructief netwerk de breedte van het landschap versterken.
Strengthening the width of the landscape with the length of a non-disruptive network.

Multi use concept



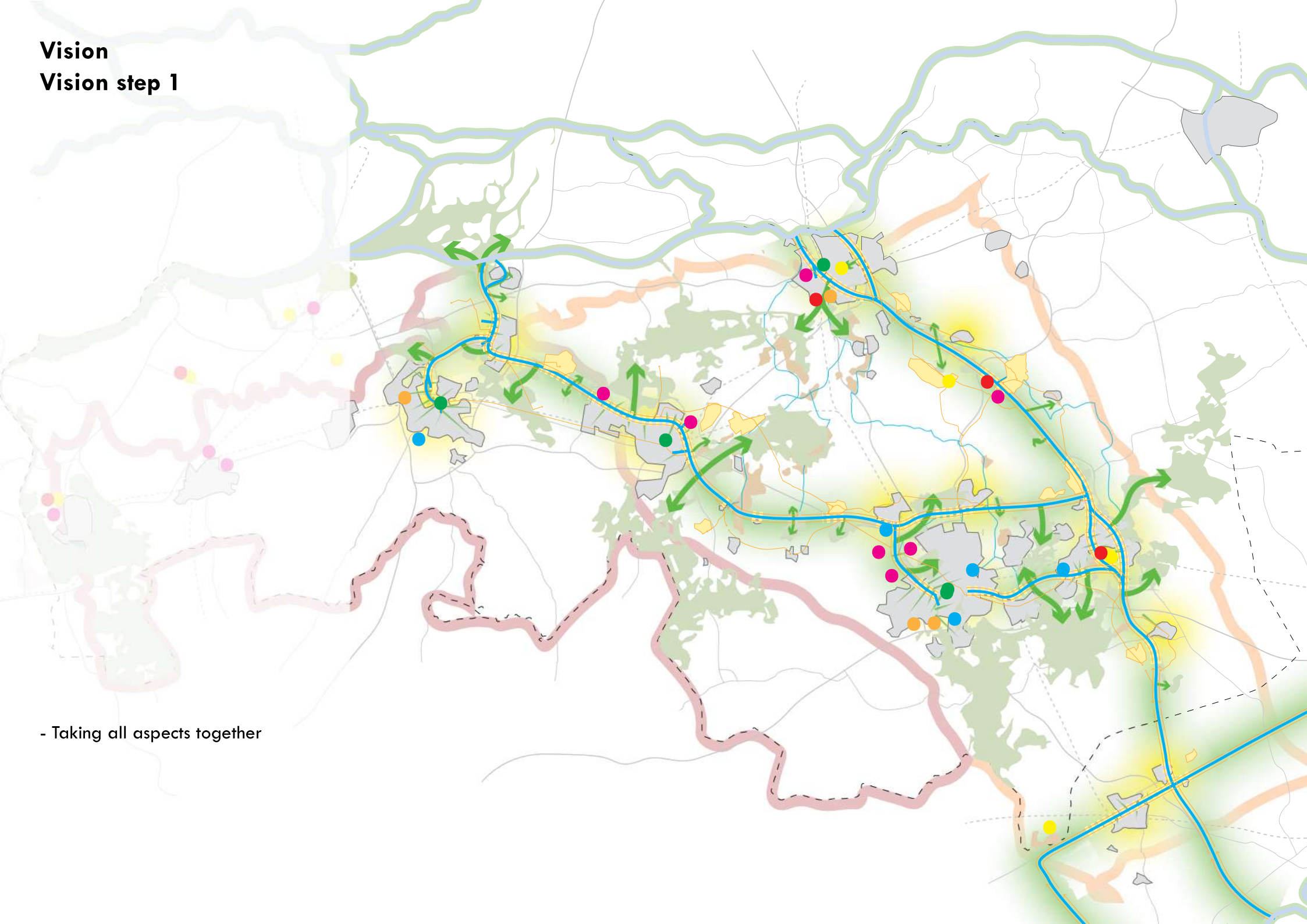




Vision

- First Vision idea
- 3 vision directions
- Disrupted spaces vision
- Route design

Vision
Vision step 1



- Taking all aspects together

Vision

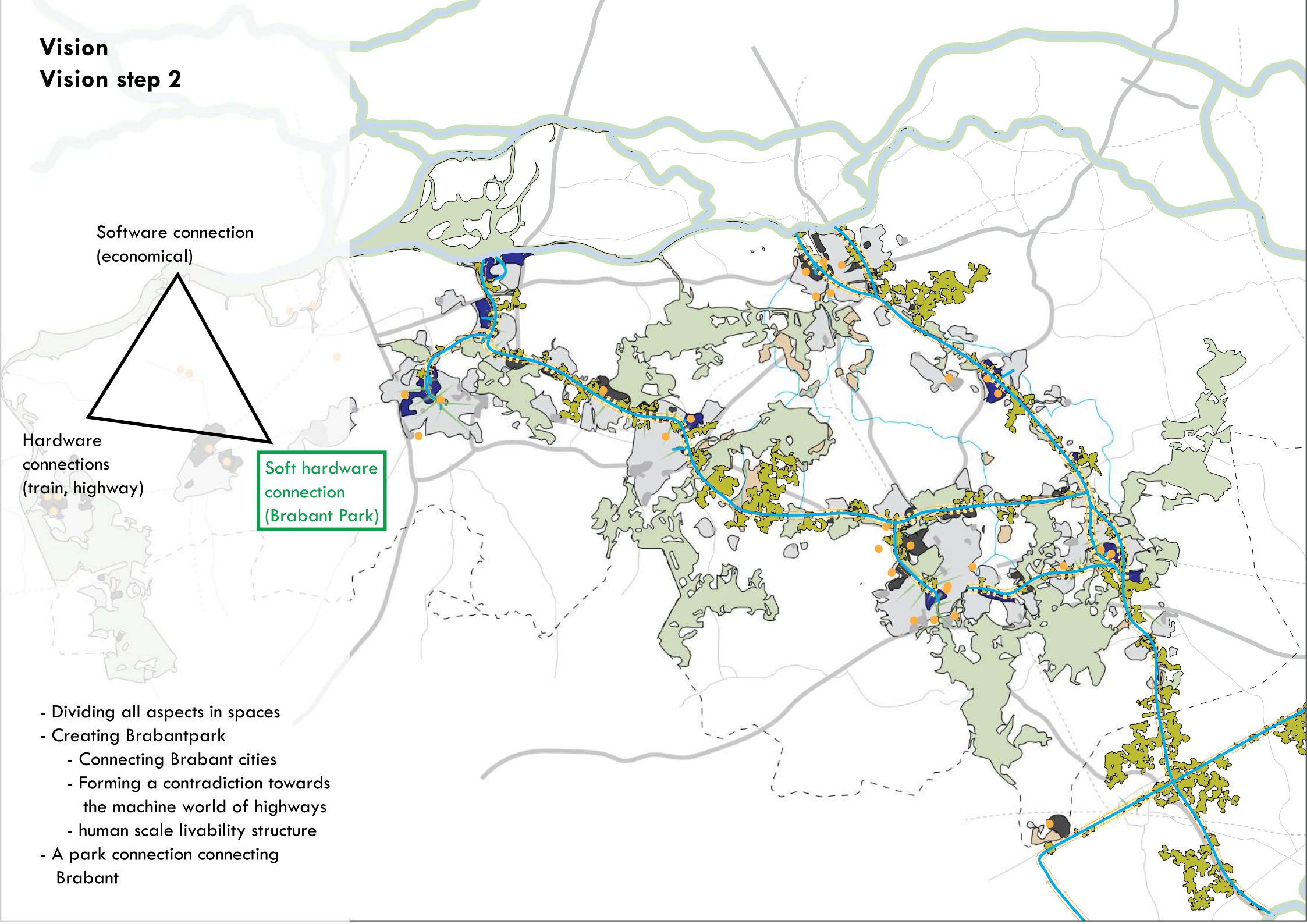
Vision step 2

Software connection
(economical)

Hardware
connections
(train, highway)

Soft hardware
connection
(Brabant Park)

- Dividing all aspects in spaces
- Creating Brabantpark
 - Connecting Brabant cities
 - Forming a contradiction towards the machine world of highways
 - human scale livability structure
- A park connection connecting Brabant



The **economic** direction

Design principals

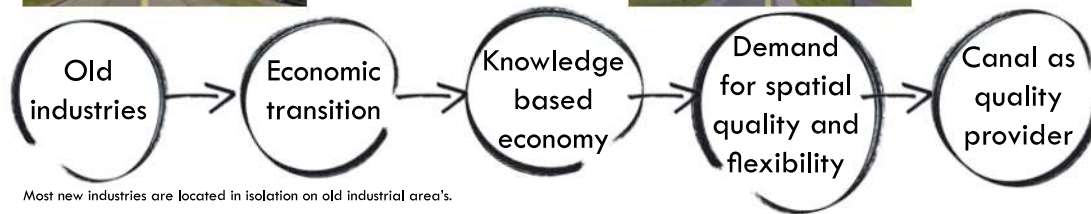
New industries (industrial)



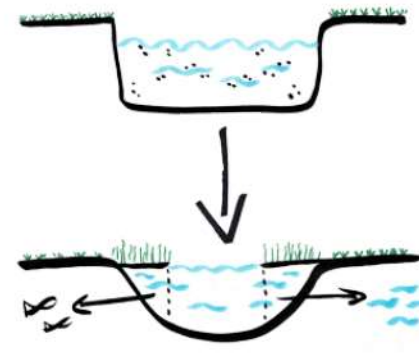
Dirksland,
Watertorenpark



Eindhoven,
Hightech campus



New businesses (agricultural)



By adding aquaponics water becomes cleaner for agricultural use and underneath fish farming can be done.

Stakeholders

- New industry clusters
- Agricultural farmers
- National Water board The Netherlands
- Municipalities
- Province North-Brabant

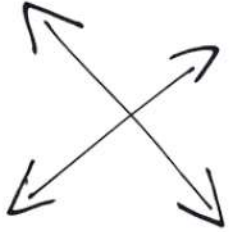
Users

- Campuses
- Campuses to be (ambition)
- Small agricultural farms

The **nature** direction

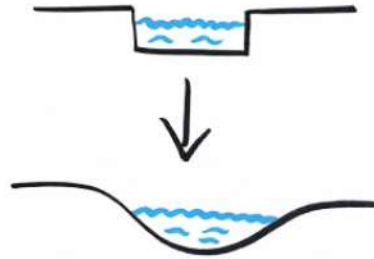
Design principals

Making connections

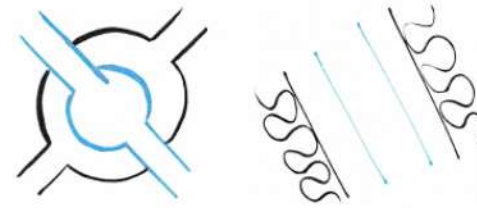


Making connections increases the local biodiversity. Greater biodiversity has a positive spin off in the direction of agricultural production around the forest areas. It also enhances the recreational forest experience by introducing more variety in plants.

Animal friendly transitions Zoning



Natural watersides make animal friendly transitions.



Creating designated areas for flora/fauna and the recreational functions

Stakeholders

- Natuurmonumenten
- Farmers
- National Waterboard The Netherlands
- Municipalities
- Province North-Brabant

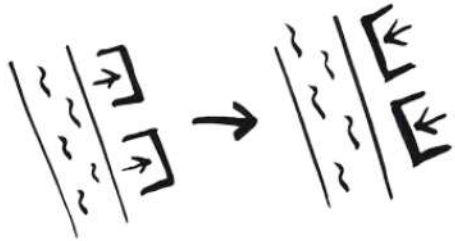
Users

- Wildlife fauna
- Wildlife flora
- Vacationers (recreation)

The **urban** direction

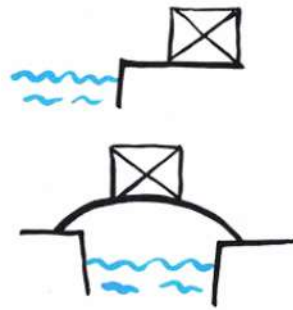
Design principals

Turn cities around



Historically the canals used to be industrial connections, cities have reacted to this fact by orientating backsides towards this space.

Orientations



Venetie(IT), Fondamenta S. Eufemia



Houten(NL), Visserwoningen



Bugsworth(GB), houseboats



Venetie(IT), Calle del Cristo

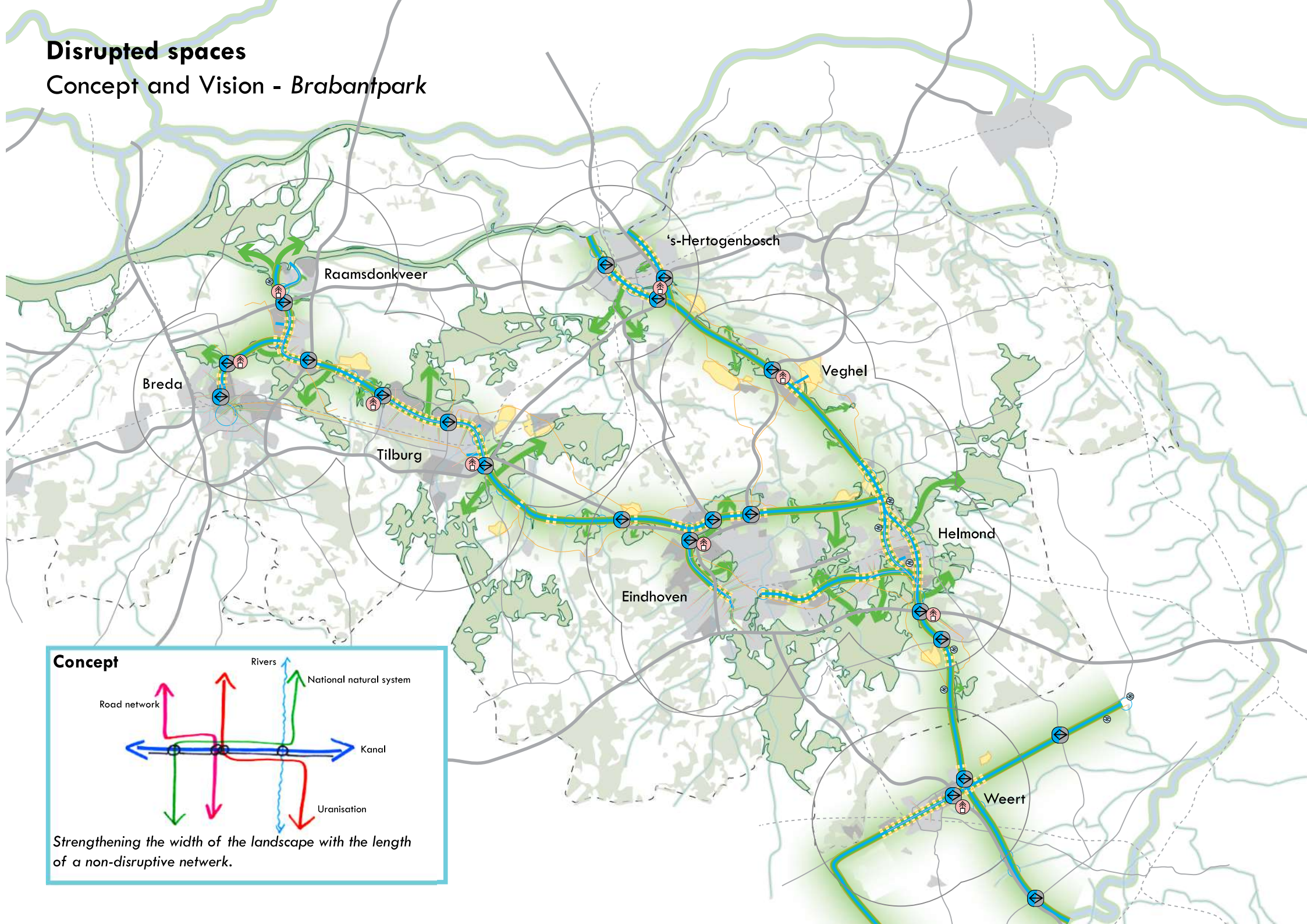
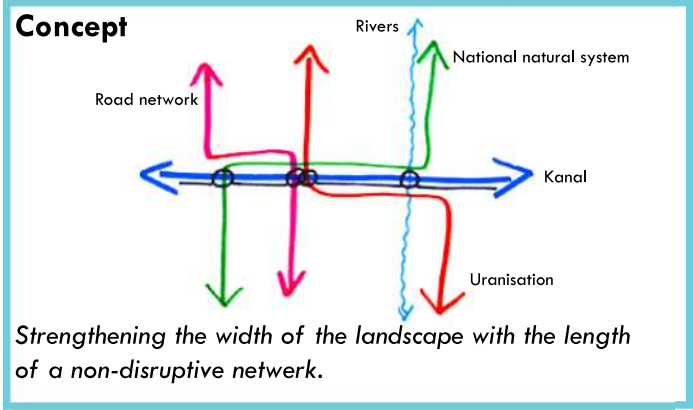
Stakeholders

- Municipalities
- Developer
- National Waterboard The Netherlands
- Province North-Brabant

Users

- Centrum living
- Urban inhabitant living on the each of historical heritage and the modern city
- Houseboat living

Disrupted spaces
Concept and Vision - *Brabantpark*



Disrupted spaces

Vision - Brabantpark



Graduation tutor

Marcel van Meijs
Bedrijf: Palmbout Urban Landscapes
Locatie: Rotterdam
Experienced in water related landscape and urban projects. Crossing the boundaries between landscape and urban at a regional and local scale.

Examiner Options

Option 1. Wolbert van Dijk
Company: Wolbert van Dijk Urban and landscape design
Location: Rotterdam
Description: A wide experience in international water and delta related urban projects on multiple scale levels.

Option 2, Mareike Wassens
Company: Movaris
Location: Utrecht
Description: Expert in the integration of major infrastructural projects inside and outside of the urban environment.

Reference Projects

1. Bike highway, connecting cities along the canal
Location: Groningen
Company: H+N+S Landscape architects

2. Park 21, Central park in the polder
Location: Haarlemmermeer
Company: Vista

Experts:

1. Steven Slabbers
Company: Bos en Slabbers
Location: Middelburg
Description: Landscape architect and at the base of Brabant Mozaiklandschap, a important vision for Brabant made in 2001. This was the first vision that motioned the potential of canals in Brabant.

2. Jan Piet van der Meer
Company: Caiway
Location: Hilvarenbeek
Description: Expert in renewable energie with an emphasis of hydrogen, the future of energy storage.

3. Dries Onclin
Company: Scheepswerf Talsma
Location: Franiker
Description: Expert in oldtimer inland cargo ships.

4. Tiny Dankers
Company: Provincie Noord-Brabant
Location: 's Hertogenbosch
Description: Geological service department Province North-Brabant



1. H+N+S Landscape architects.

Bibliografie (apa)

Buddingh, C., Dicke, O., Dijkhuizen, S., & Kam, J. v. (1980). Met de Anna onder zeil. Almere: Zeilsporthetromotion.

LOLA landscapes, (2017, November 16). Dijkenkaart van Nederland. Retrieved from arcgis.com: <http://www.arcgis.com/apps/MapJournal/index.html?appid=3eb-d596e8e5a45619024faf40897356f&webmap=70f-413c8f6784f24bb22a40bbfb55d7f>

Atelier Brabant. (2014). Weven aan het stedelijk tapijt. Rotterdam: IABR.

Pötz, H., & Bleuzé, P. (2010). Vorm geven aan stedelijk water. Hoofddorp: SUN.

Rijkswaterstaat. (2017, October 4). rijkswaterstaat. Retrieved from rijkswaterstaat.nl: <https://www.rijkswaterstaat.nl/water/vaarwegenoverzicht/index.aspx>

Urban Regions in the Delta. (2014). Integraal uiterwaardenbeheer. Nijmegen: Rabboud Universiteit.



2. Vista.

Stakeholders

1. Bart Verkade
Company: Self employed
Location: Woudrichem
Description: Has been sailing inland cargo ships for 20 years. Captain of a 80 meter long inland cargo ship

2. Jan Lock
Company: Terra Nova 1929
Location: Dordrecht
Description: Has been sailing inland cargo ships for 50 years. Captain of a 50 meter long former inland cargo ship nicknamed Pearl of the Rijn

3. Ronald Kramps
Company: Provincie noord Brabant
Location: 's Hertogenbosch
Description: Educated as a planner and urban designer he is deeply involved in water related projects in the province.

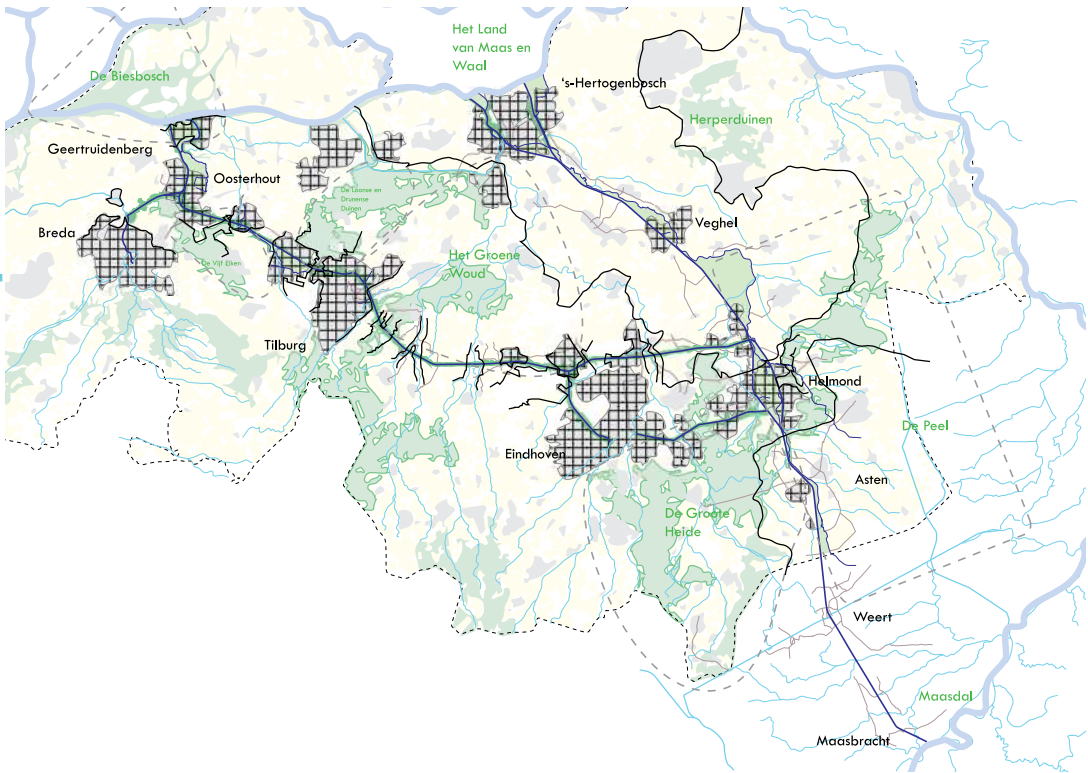
4. Jan Letzer
Company: Rijkswaterstaat
Location: Rotterdam
Description: Water engineer.

5. Mark Kerkhoff
Company: Waterschap Aa en Maas
Location: 's-Hertogenbosch
Description: Water engineer.

6. Anneke Goeree
Company: Waterschap rivierland
Location: Tiel
Description: Water engineer and policy.

Landscape and ecological BrabantPark!!:

Connecting throughout the layers



Principal cross section



Legenda

Brabantpark areas



Present program: The existing landscape with its hedges, avenues and small-scale fields.
Newly to be realized program: experience routes according to the Brabantpark values.

Brabantpark cities



Present program: Large / medium / small center, residential and employment, public transportation hub, intersection of routes and canal
Newly to be realized program: Direct relationship between central living environment and the peace and space environment of Brabantpark. A relationship that is currently only reserved for a select number of cities such as Scheveningen, 's-Hertogenbosch and the river towns where there are flood plains.

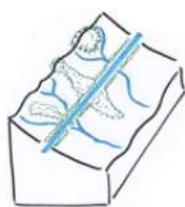
Brabantpark nature reserves



Present program: High-stem and / or heathland with sand drifts.
Newly to be realized program: Channel intersection becomes ecological and physical enrichment through green sloping banks and the now largely existing green framework of the Wilhelmina canal.

Crosssection

Wilhelmina canal follows altitude line



Crosssection

Zuid-Willemsvaart follows the valley of the river Aa

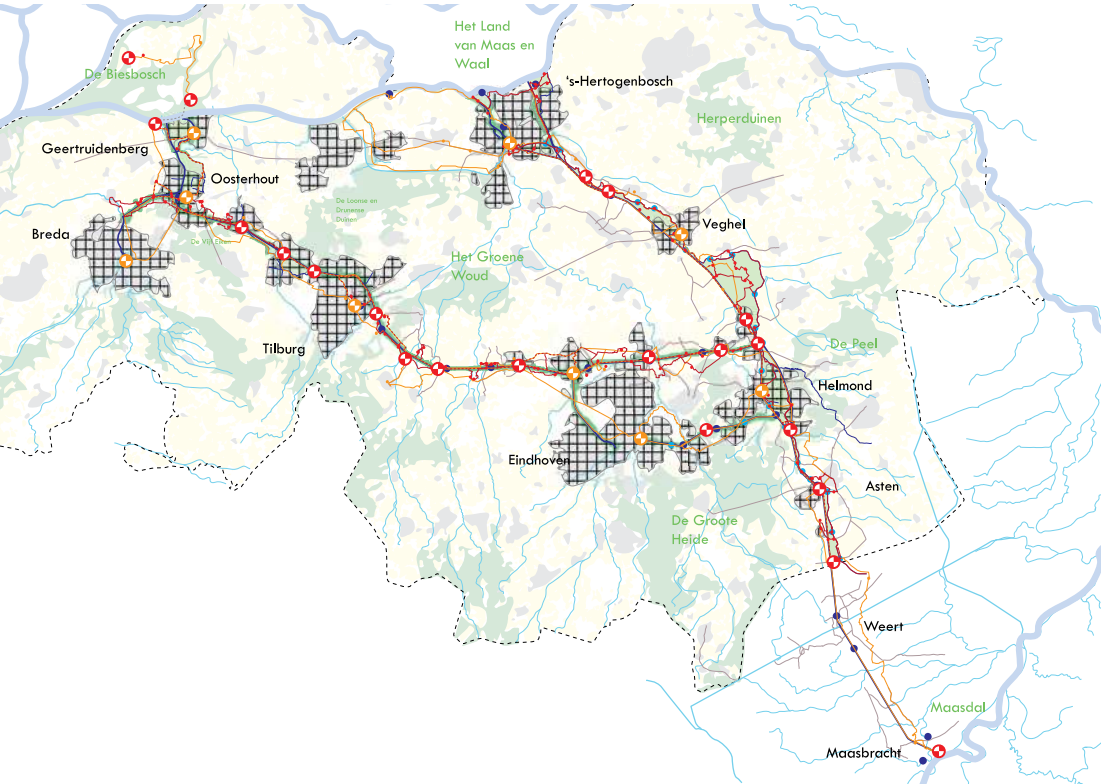


Landscape and ecological Brabantpark!!

By strengthening the existing ecological qualities with natural banks, the water is involved in an ecological connection. A connection that conforms to the principles of slowlife in rest and space and includes the cities in Brabant. An intervention in the length of the channels has significance for the width because water, waterfront and city now develop an organic relationship.

Recreational BrabantPark!!:

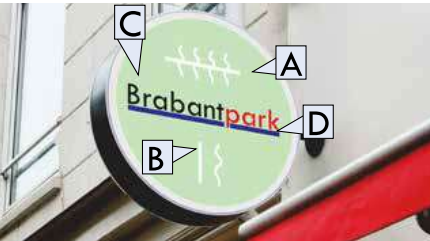
Experiencing relaxation and space



Legenda

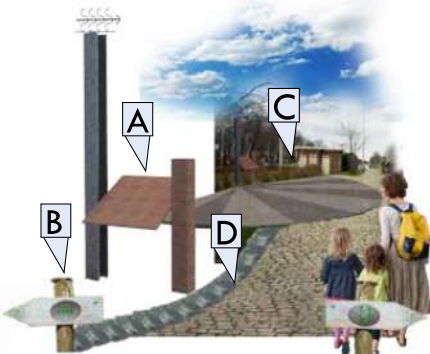
- Main "HUB"
- Navigation and planning point
- Bike route
- Walking route
- Boat route
- Kayak route
- Present program:** Large / medium / small center, public transport hub, intersection of routes.
Newly to be realized program: Knowledge location (recognizable explanation board), shelter / sitting / stable possibility.
- Present program:** function or industrial heritage location, crossroads of routes
Newly to be realized program: Introducing location (recognizable explanation board with the ability to plan routes), hiding / sitting possibility, crossroads of routes
- Wish:** Make rounds from place to place, safe paths and hidden possibilities so that the routes can be used all year round. Long-distance routes work best with a clear entity such as a coast, border or river to follow.
Present program: Landscape related public function, Large / medium / small center
Newly to be realized program: Knowledge locations (recognizable explanation board), shelter / sitting / stable possibility,
- Present program:** Landscape related public function
Newly to be realized program: Equipped with a shield or marking to indicate the relationship between Brabantpark and the function
- Wish:** Make rounds directly from the starting place that is easily accessible, safe paths and hidden / sitting possibilities.
Present program: Landscape related public functions, Large/medium/small center
Newly to be realized program: Acquaintance location (recognizable explanation board), shelter / seating possibility
- Present program:** Landscape related public function
Newly to be realized program: Equipped with a shield or marking to indicate the relationship between Brabantpark and the function
- Wish:** Guest moving places with facilities for waste water (transit facilities)
Present program: Water space, Landscape related public function, Large / middle center
Newly to be realized program: Acquaintance location (recognizable explanation board), low jetty
- Wish:** Preferably circling routes, comfortable scaffolding with launching places, good accessibility by car due to the kayak.
Present program: Landscape related public functions, Large/medium/small center
Newly to be realized program: Introduction location (recognizable explanation board), kayak jetty, up / down for kayaks.

Main Hub, Store/seasonal pop-up store
park embassy in the city



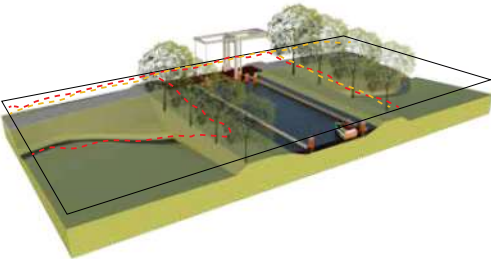
A, representing the Wilhelmina canal with a straight line as the canal and the stream valleys crossing.
B, representing the Zuid-Willemsvaart, the canal and the stream Aa.
C, green because Brabantpark is mostly natural.
D, black is the neutral representation of the province, red is representing the location markers, the blue line is representing the canals.

Navigation and planning point
Informational board including clock and wind direction



A, information and planning board, consisting of two materials (wood and steel) representing the main materials used for the canal constructions. Including wind directions and rain detection.
B, Signs for brabantpark routes
C, pavement signage for Brabantpark routes. Only at intersections to guide the direction of the Brabantpark route. In this manner the signage is not claiming the public space but it has a clear guiding function for those who are looking for it. Materialisation is basalt vowels with metal sign, related to canal heritage materialisation.
D, location is kanal related heritage.

Principal cross section

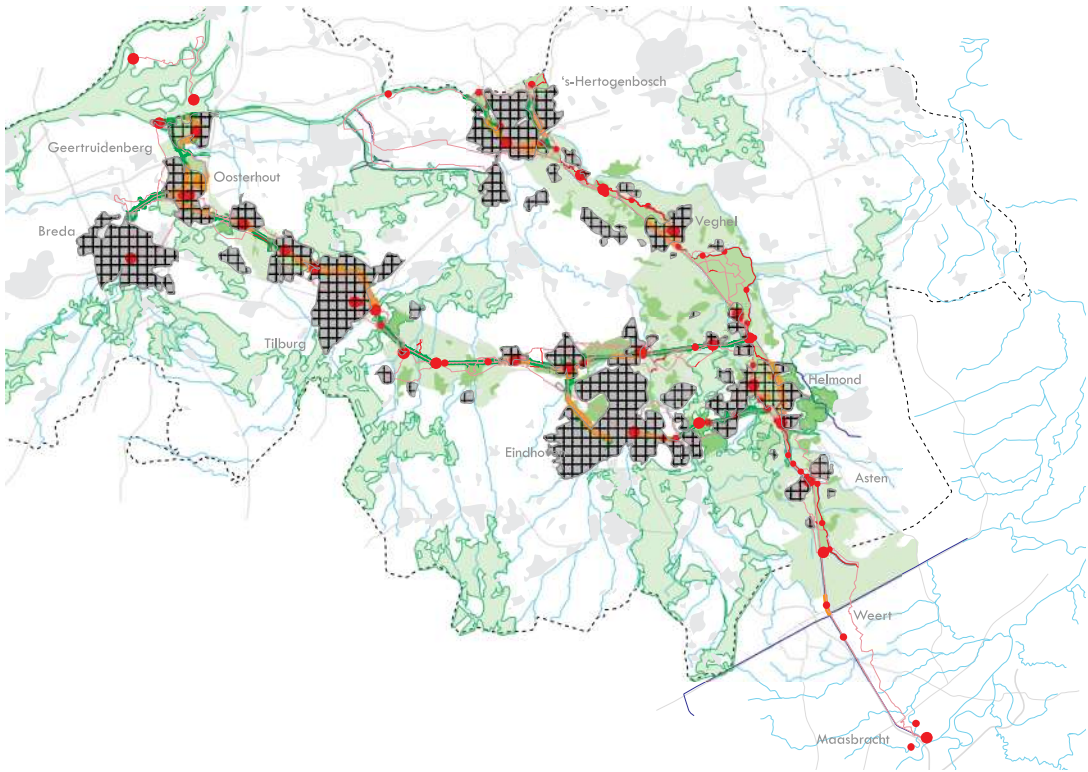


Recreational Brabantpark!!

The routing of Brabantpark is based on the possibility to be able to build laps of one hour to more than one day trips. Every bike and walking route makes a circle every hour that is connected to the next circle (individualisation, create your own route). Crossroads arise on industrial relics including bridges, ports and locks. Each circle illustrates (deepening, learning and experiencing the landscape) the relationship between the canal and its surroundings in the landscape spaces.

Locally functional faces for BrabantPark!!!:

Integral connecting, experiencing in added value



Legenda

Fase 1 - Places and routing

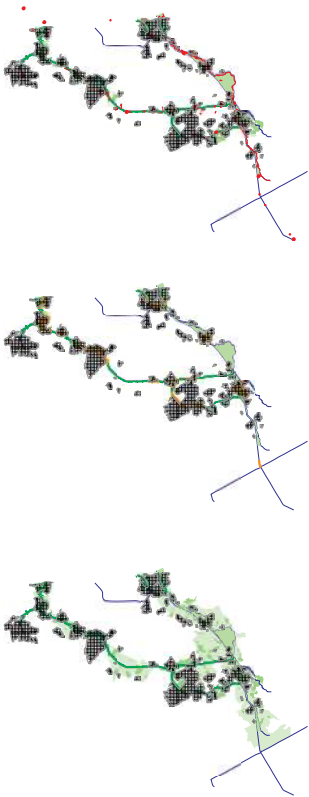
By developing in three phases support and creativity can be unlocked. In addition to the creation of natural banks, in the first phase, the nodes and routes are recorded in signposting and road surfaces so that the routes are accessible to everyone.

Fase 2 - Urban development

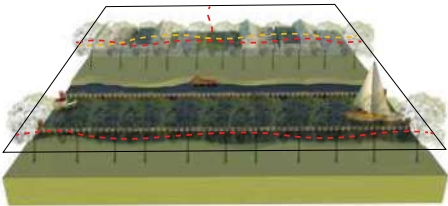
In the second phase, we will use the clean and widened water (because of the natural banks) for the city as space for recreation, climatological objectives and new forms of living

Fase 3 - Landscape spin-off

In the third phase, the canals and Brabantpark are available for spin-offs in the agricultural area where the relatively high water is extended and can be used for double land use and against drying out land.



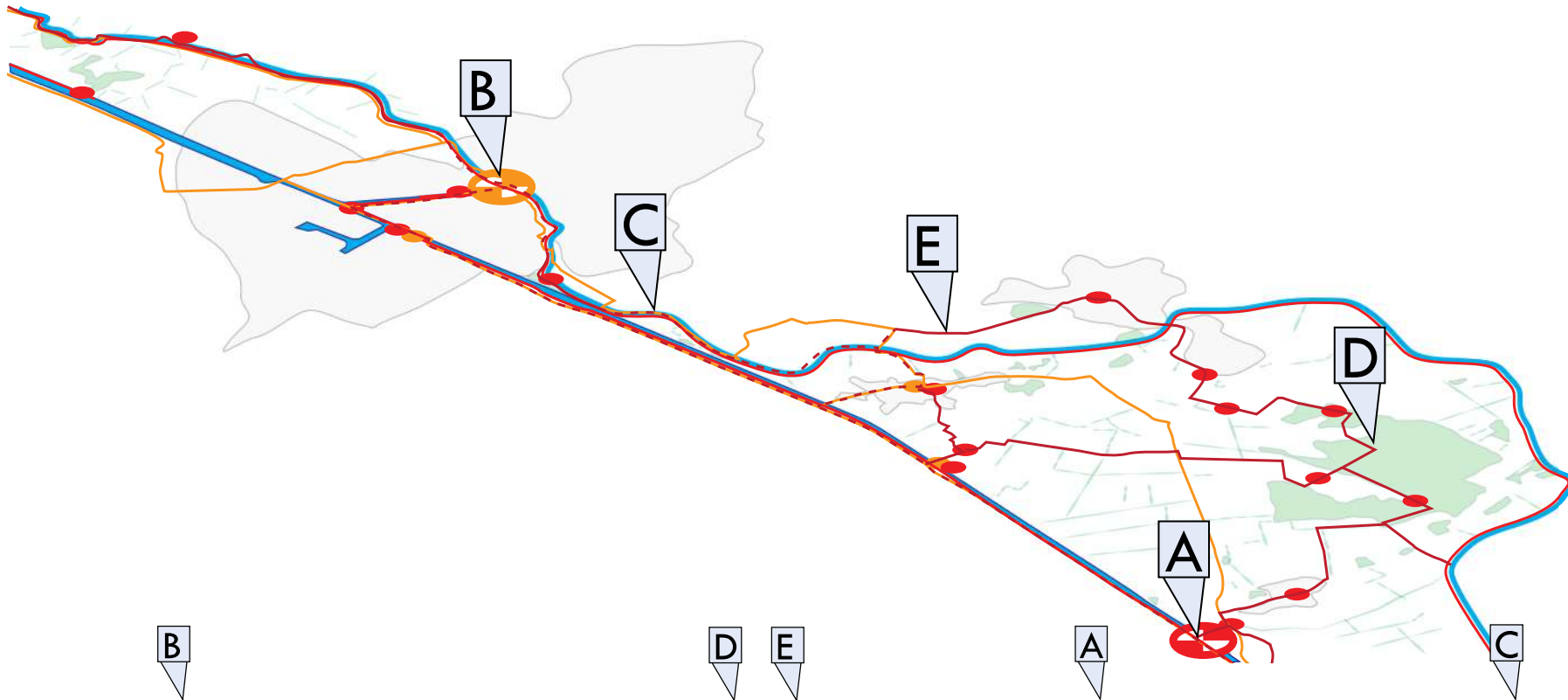
Principal cross section



BrabantPark!! in Veghel:

Practical and easy signage:

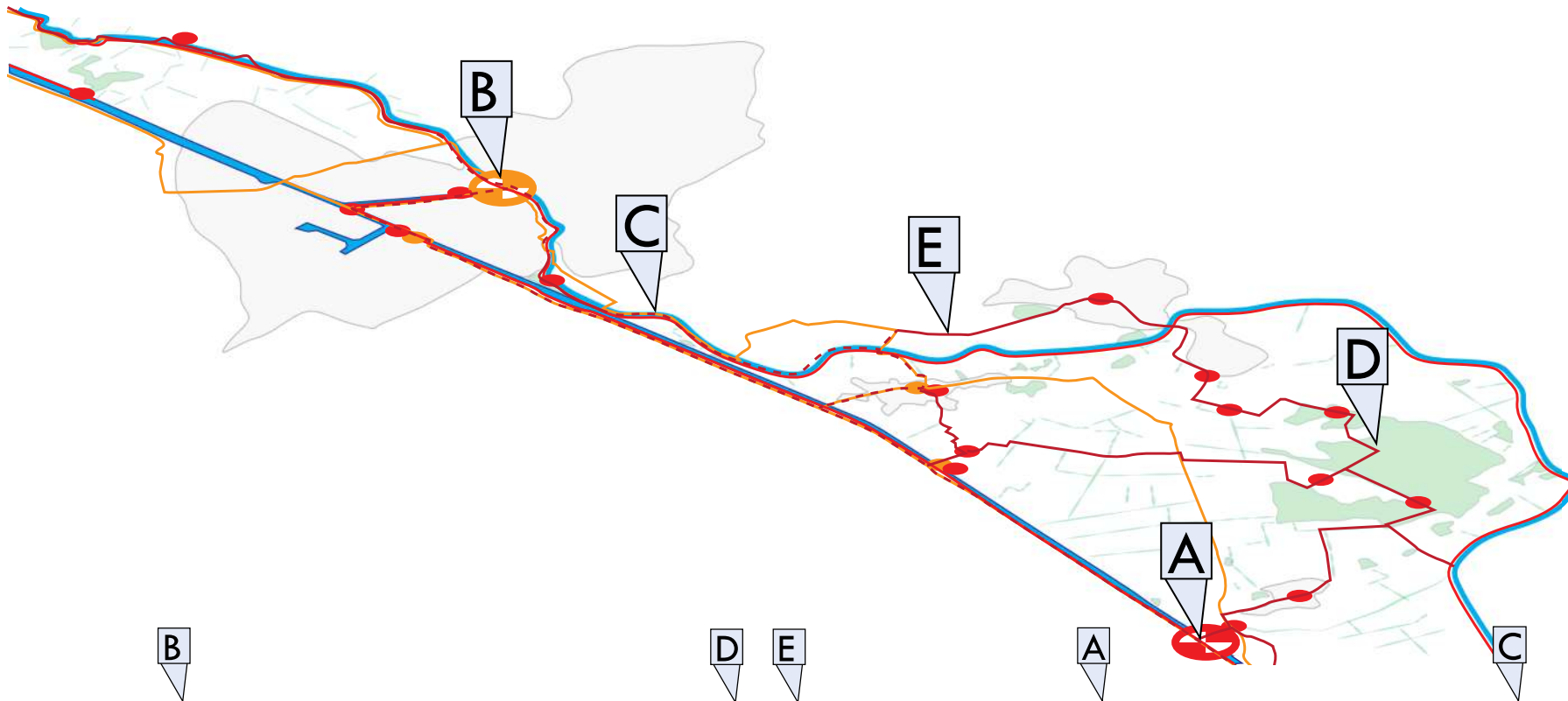
A, Navigation points, Planning locations with a informational board, sun dock, wind direction and air moisture information.
B, City Ambasee point, pop-up store or seasonal store with planning information and restaurant/hotel/camping arrangement options.
C, Clear routing, circling between river and canal, following the characteristics of the Aa river valley.
D, Experiencing the landscape in open and closed spaces.
E, Bike and Walking cirkels of one hour. For walking the length is 5 km and for biking the length is 20 km. This is combined with a walking path along the entire length of Brabantpark.



BrabantPark!! in Veghel:

Practical and easy signage:

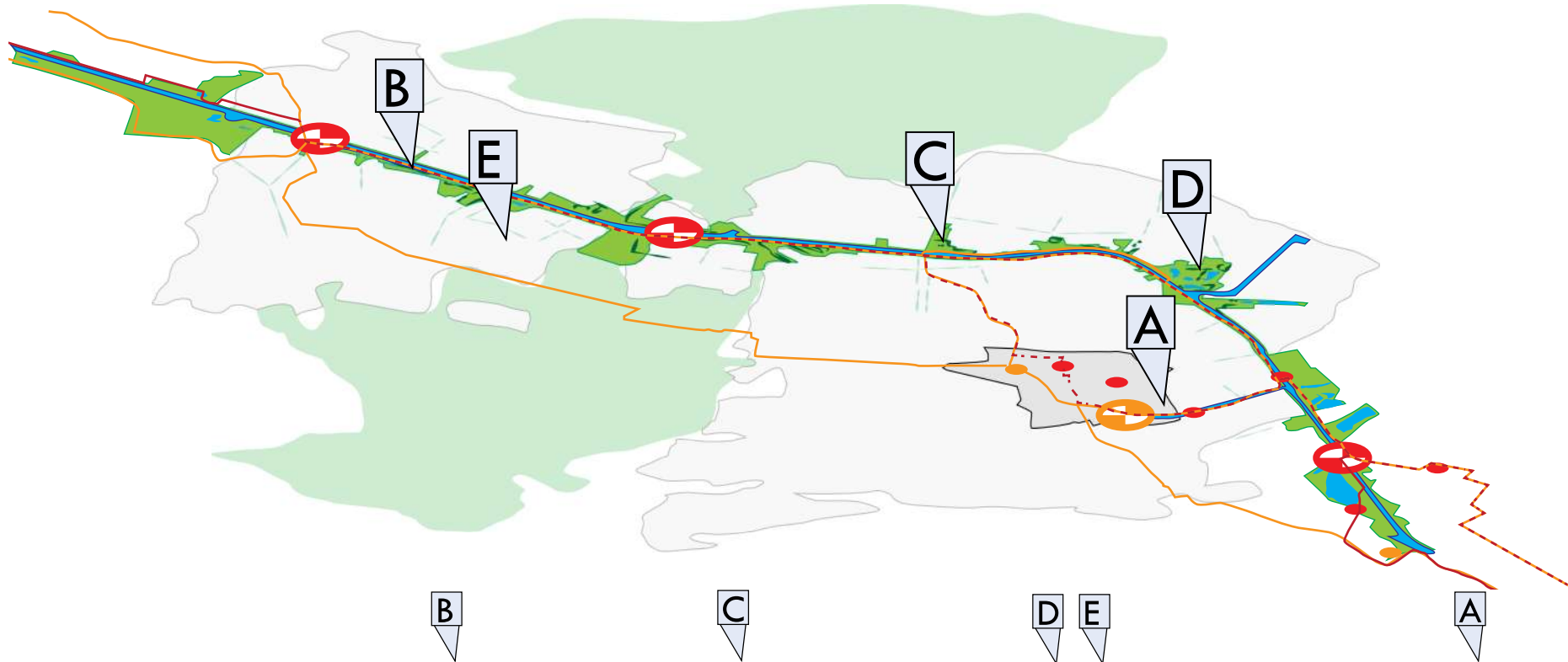
A, Navigation points, Planning locations with a informational board, sun dock, wind direction and air moisture information.
B, City Ambassade point, pop-up store or seasonal store with planning information and restaurant/hotel/camping arrangement options.
C, Clear routing, circling between river and canal, following the characteristics of the Aa river valley.
D, Experiencing the landscape in open and closed spaces.
E, Bike and Walking circles of one hour. For walking the length is 5 km and for biking the length is 20 km. This is combined with a walking path along the entire length of Brabantpark.



BrabantPark!! in Tilburg:

Added value for urban situations:

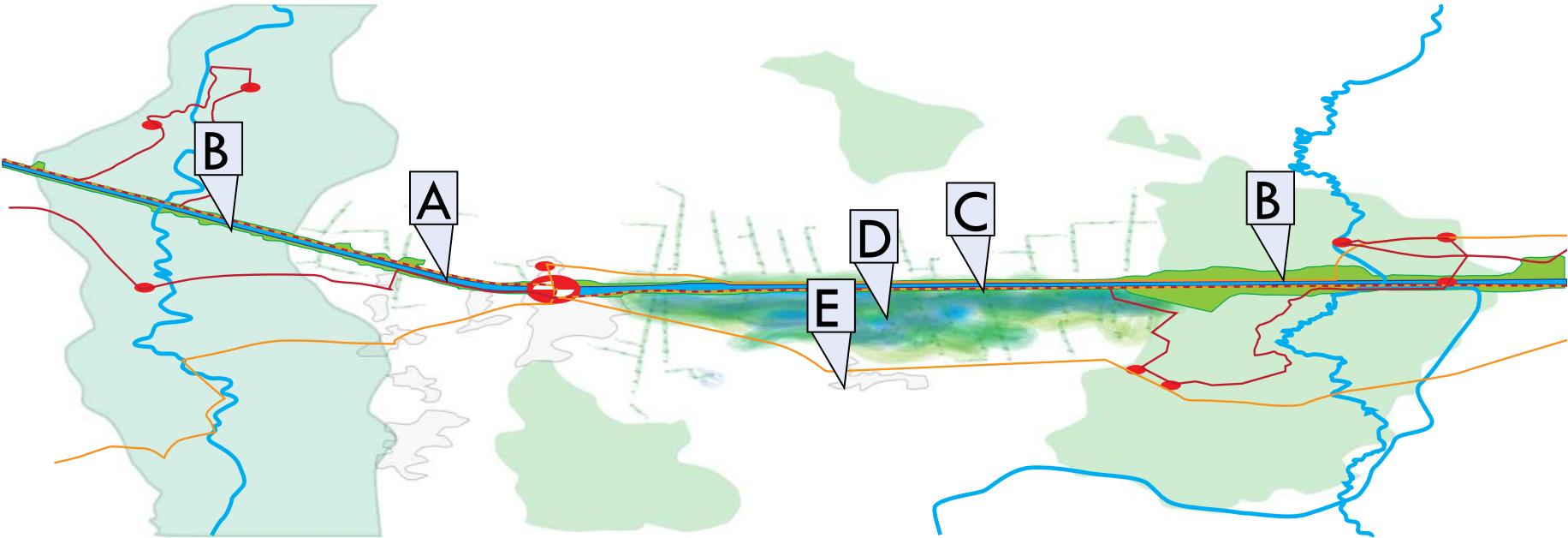
- A, Every urban centre along the canals has a direct connection to Brabantpark.
- B, Space for new forms of housing in relation to brabantpark.
- C, Interconnecting urban green networks.
- D Climatological urban benefit, storing water during and directly after rainfall.
- E, Climatological urban benefit, using the canal water as a secondary water source.



BrabantPark!! in Haghorst:

Multi Use landscape development:

- A, The canals as a continuous flow of clean surface water.
- B, Connecting green spaces, forest and river valleys, forming one big ecological system.
- C, Water filtering by natural watersides and seepage water for use in agricultural functions.
- D, Multi land use, in water fish and under water plants can be grown, on the water regular agricultural crops can be farmed.
- E, Recreational spin-off businesses related to what Brabantpark has to offer.



Masterplan

- Brabantpark

Brabant Park!

Toerist, recreant, bewoner en passand

Legenda

brabant park
steden

autoroute twee delen (rood)

fiets route twee delen (blauw)

- altijd twee routes, eentje langs het kanaal en een flierenfluit route
- elke 10 kilometer kan er een rondje gemaakt worden (rondje ong. 25 km)

wandelroute twee delen (groen)

- volgt kanaal en rivier
- gebruikt alle interessante punten om dwarsverbindingen te maken

Langste kano route van Nederland

- alle wandelwegen kruisingen met rivier worden aanlegplekken
- alle points of interest worden aanlegplekken

pleziervaart pleiseterplekken

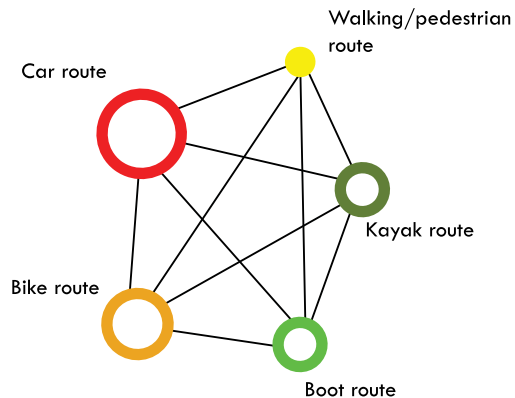
- bestaande aanlegplekken geschikt maken

toeristische trekpleisters

recreatieve trekpleisters

Onderling verbonden

Overstappen mogelijk op elk kruispunt



Programma

Functies op elk kruispunt

Car route



Bike route



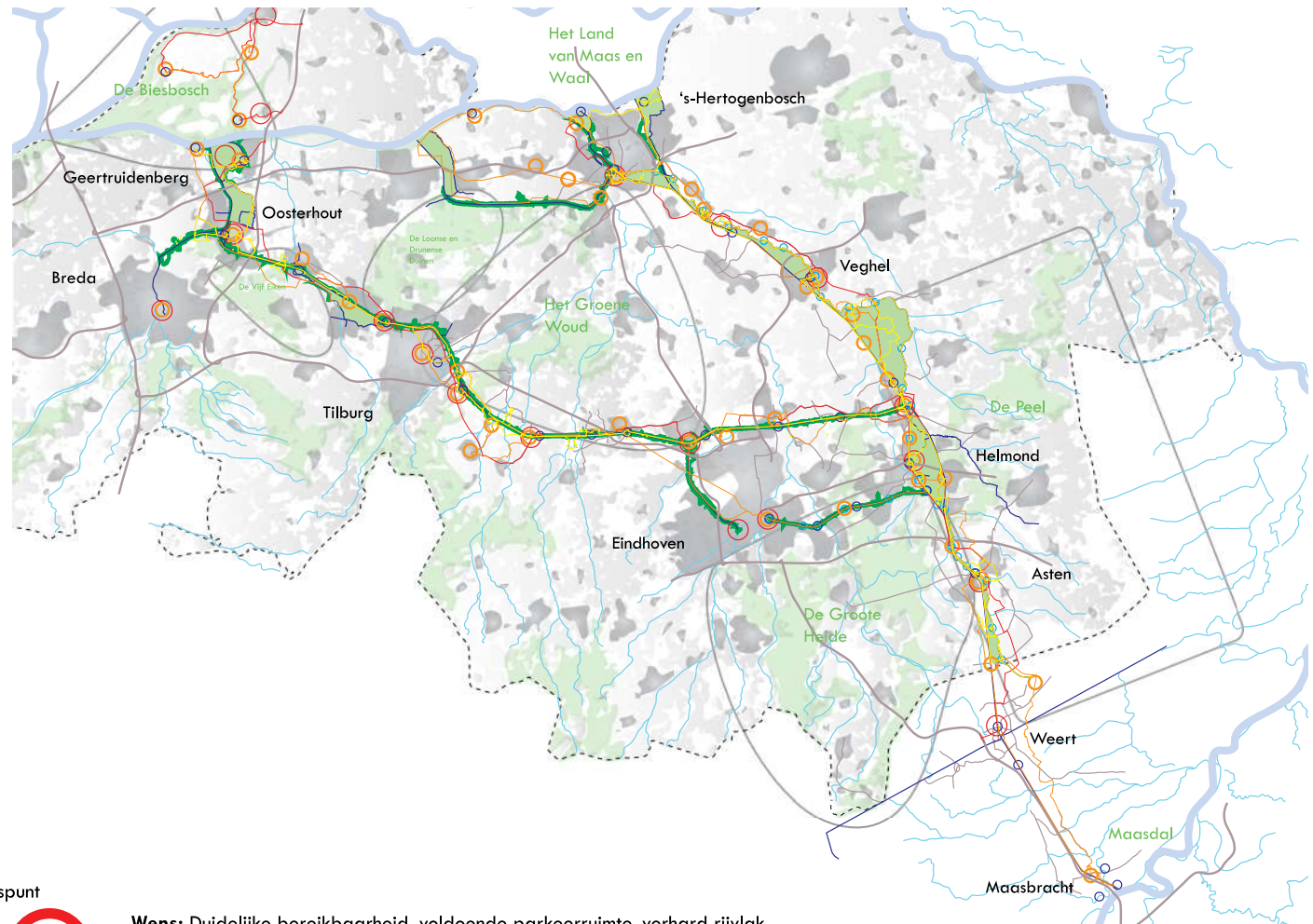
Boot route



Kayak route



Walking route



Wens: Duidelijke bereikbaarheid, voldoende parkeerruimte, verhard rijvlak

Aanwezig programma: Groot centrum, snelweg bereikbaarheid

Nieuw te realiseren programma: Ambassade locatie (Winkelpand/ seizoen pop-up store)

Wens: Rondjes maken van plek naar plek, veilige paden en schuil mogelijkheden zodat de routes het jaar rond bruikbaar zijn. Lange afstand routes werken het beste samen met een duidelijke entiteit als een kust, grens of rivier.

Aanwezig programma: Landscape related public function, Groot/middel/klein centrum

Nieuw te realiseren programma: Kennis makings locatie (herkenbaar uitlegbord), schuil/zit/stal mogelijkheid,

Wens: Gastensteigers met voorzieningen voor vuilwater (doorreis faciliteiten)

Aanwezig programma: Water ruimte, Landscape related public function, Groot/middel centrum

Nieuw te realiseren programma: Kennis makings locatie (herkenbaar uitlegbord), lage aanlegsteiger

Wens: Liefst rondjes, comfortable steigers met tewaterlaat plaatsen, goede bereikbaarheid met de auto ivm shouwen van de kayak.

Aanwezig programma: Landscape related public function, Groot/middel/klein centrum

Nieuw te realiseren programma: Kennis makings locatie (herkenbaar uitlegbord), kayak steiger, op/af gang voor boten

Wens: Rondjes maken direct vanaf de startplaats die goed bereikbaar is, veilige paden en schuil/zit mogelijkheden.

Aanwezig programma: Landscape related public function, Groot/middel/klein centrum

Nieuw te realiseren programma: Kennis makings locatie (herkenbaar uitlegbord), schuil/zit mogelijkheid

Signs

car route



Signs

bike route



Signs

walk route



Sign

Kayak route



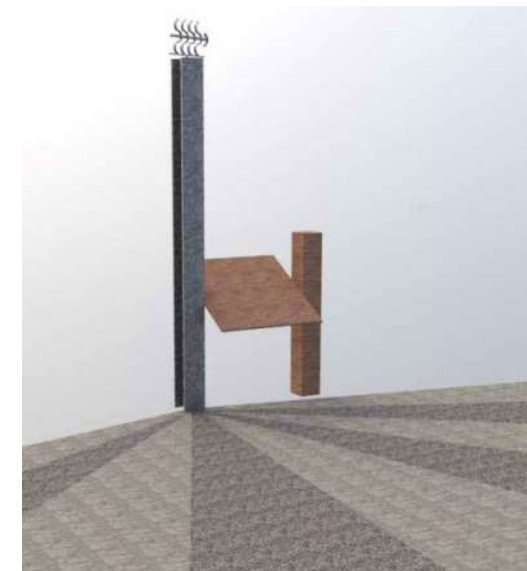
Store/seasonal pop-up store

park embassy in the city



Introduction sign

Informational board including clock and wind direction



elementen

+

route

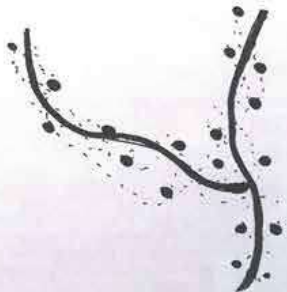
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identificatie =

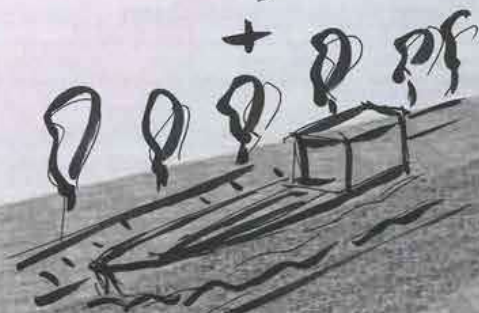
alle noodzakelijke informatie
voor eendag lang ontspannen!



+



+



=

langs de
Wilhelmina kanaal
rondom

langs de
Zuid-Willemsvaart
vondes

Windrichtings
wijzer

Helpt de fietser
zijn route te bepalen

Verkeerd naar de rotschepen
die vroeger heer en meester waren
op de kanalen.

medeaal
verkeerd naar
de industriële aard
van Brabant park

300 meter

Construeer
materialen zoals
de kanalen zijn

30°
30 graden
leersland

Kaart
niet
Brabant park

Informatie
bord
planning
bord

Hout
verkeerd naar
de natuur in het
Brabant park

1,50 meter

1,00 meter

Zonnewaard
De Willemsvaart
de belangrijkste in
het ontwerp van de
Brabant park

Brabant park
voor ontspanning
rust en recreatie

Verkeerd
van de rotschepen
de kanalen

Sketchplan

- Two case designs
 - wet nature agriculture
 - New Hoogstraat
- 3 design direction
 - economic
 - nature
 - urban
- Veghel

Wet Nature Agriculture - Haghorst

Contour lines define the work field (planning area):

Landscape and use create the plan area.



1815

First occupation and land use around the river valleys. Among the river valleys are, among other things, rugged heatherlands and sand drifts.



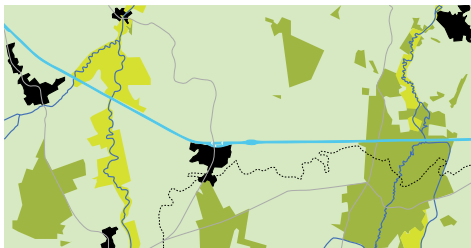
1961

The dry heathlands are being cultivated through land consolidation and new techniques.



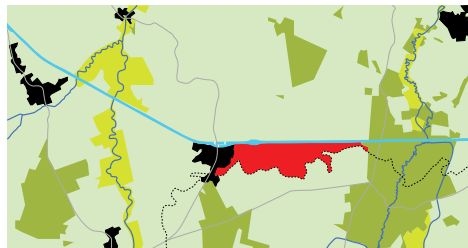
2017

Due to problems with water storage and drought, the streams become naturalised again after being cultivated.



2017 with channel and 15 meters altitude line
(channel water height is 15 meters)

South of the canal and east of Haghorst is an area just under 15 meters. Haghorst arose along a medieval ribbon and now forms a crossroads with the new Brabant-park ribbon (canal).



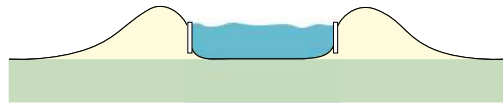
2017 live with seepage water (kwel water leven/wonen)

Because of the crossroads situation in Haghorst and the presence of a potential seepage area, this is a natural and historical location for the development of Kwelwater-living (indicated in red).

This location does not damage the remaining rough areas and is also not too close to the rivers, causing the stream structure to be disrupted.

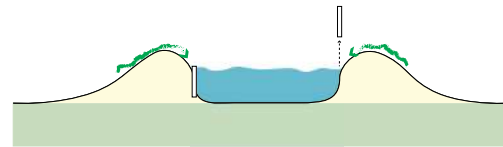
Altitude line at the height of the canal water level form the contours of the plan area.

Analyse Haghorst, Ontginningsweg (middel): Collaborate with a normal undesirable phenomenon.



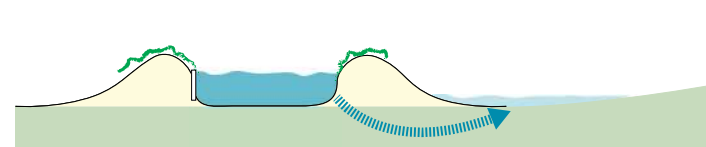
Current situation

B.

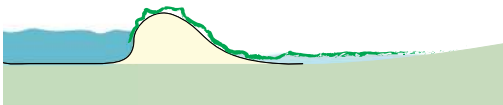


Remove sheet piles, introduction natural banks.

C.

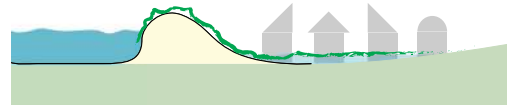


Natural banks allow the development of seepage water on the high side of the canal. Not directly next to rivers or extreme low ground because otherwise a new full dike is necessary. Now only a groundwater barrier is needed to ensure that the channel does not run empty.



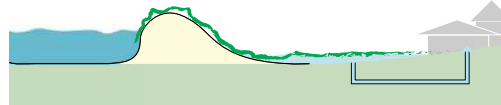
Green development in seepage water area (kwelwater gebied).

E.



Living in seepage areas.

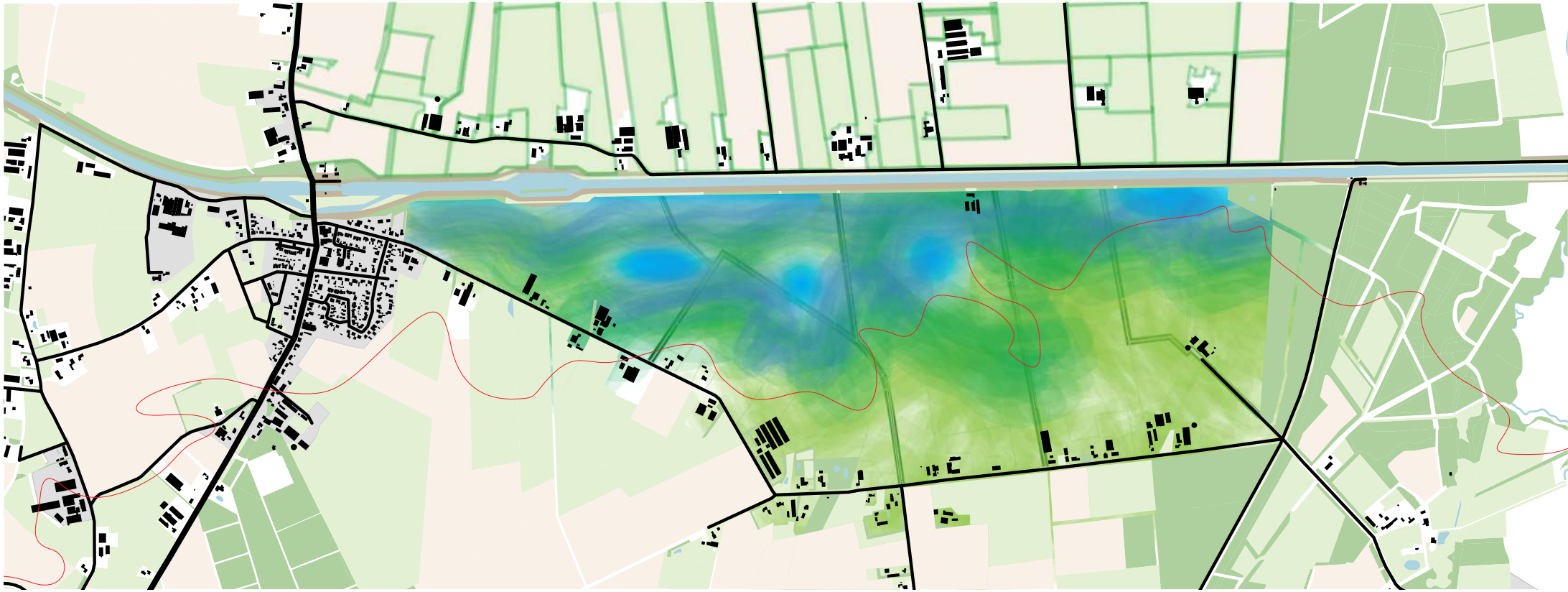
F.



The combination of (water) plants and seepage water creates a natural water purification effect that delivers clean water to farmers in the Brabantpark area.

Living in seepage areas (Sketch):

Integration of water and land creates new opportunities for ecological, recreational and agricultural land use functions.



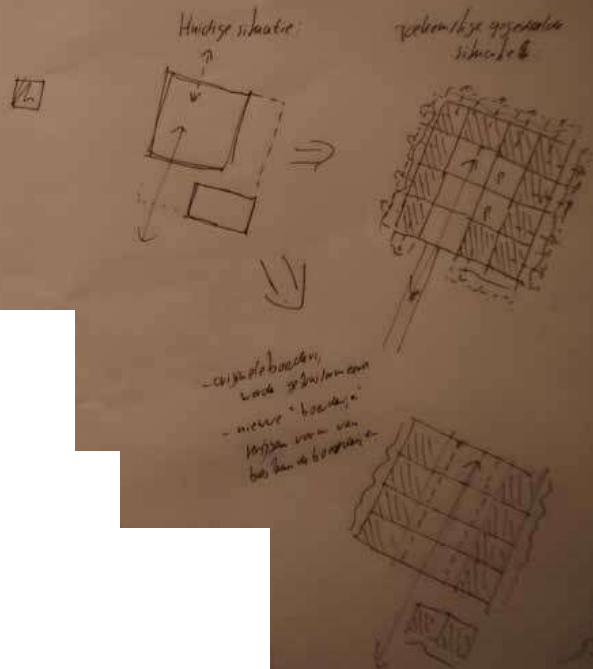
10 A (1) Boerderij afmetingen

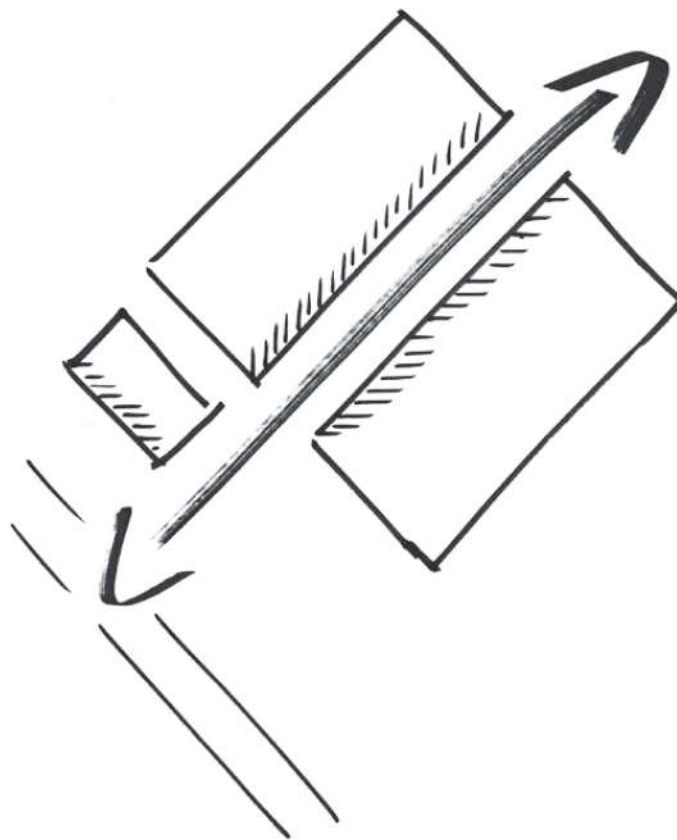
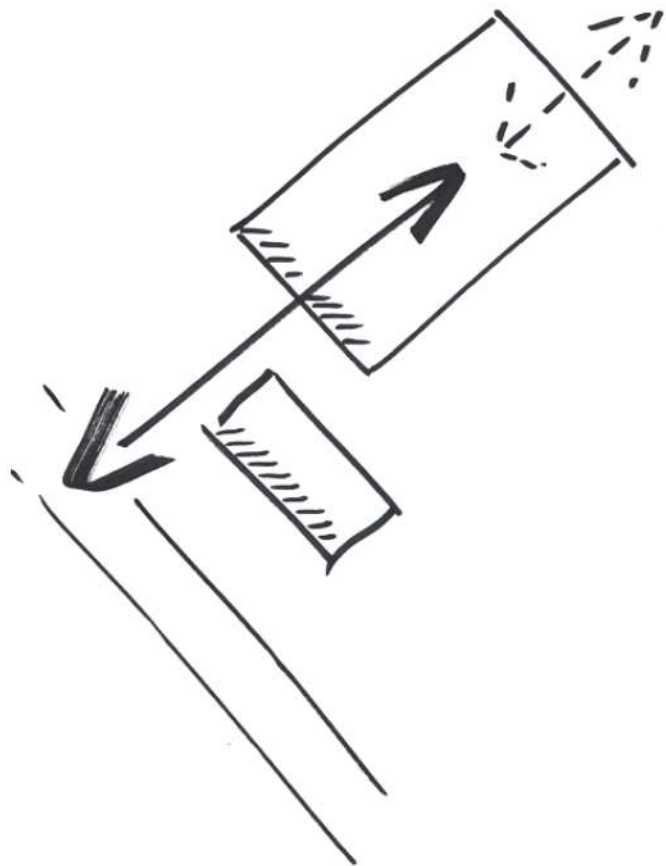
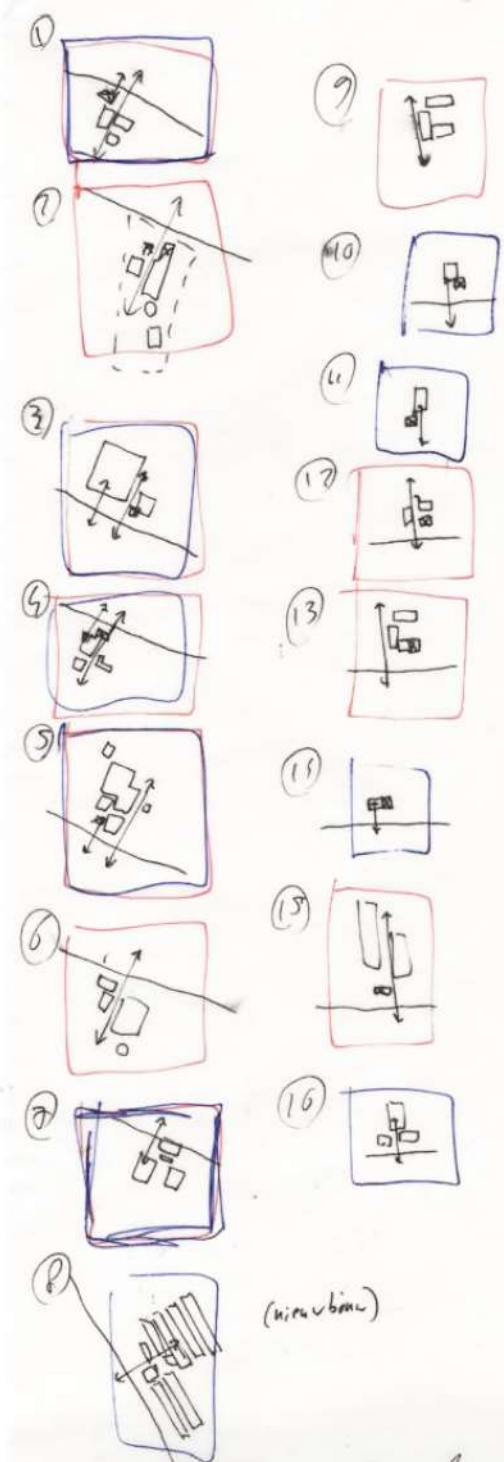


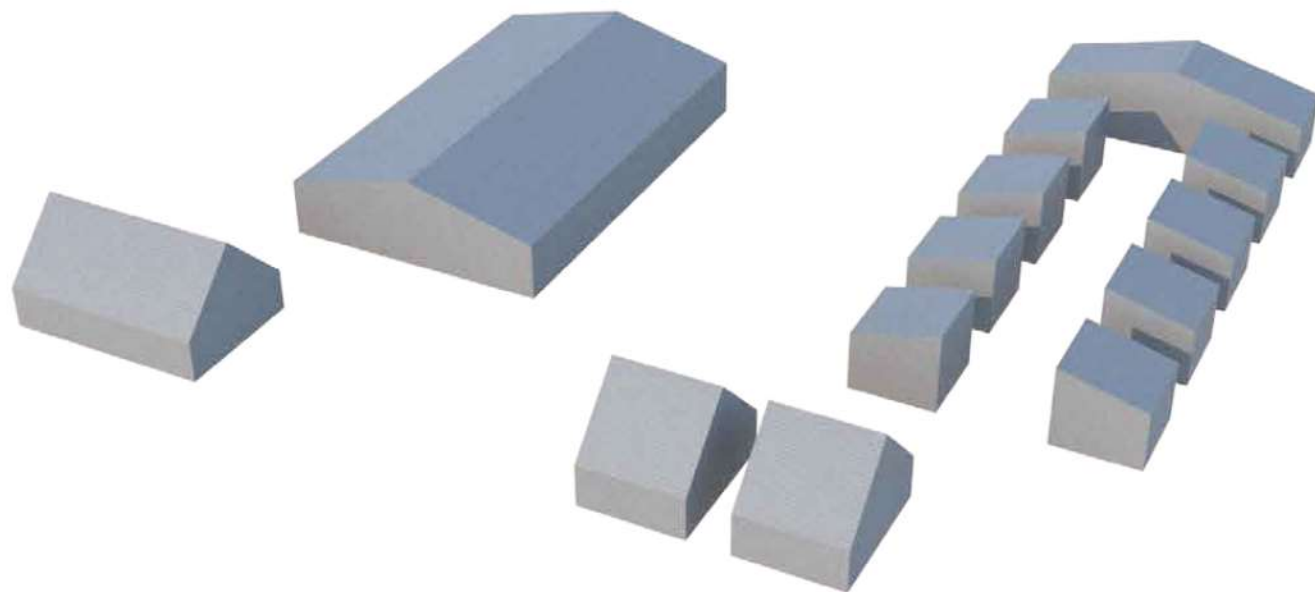
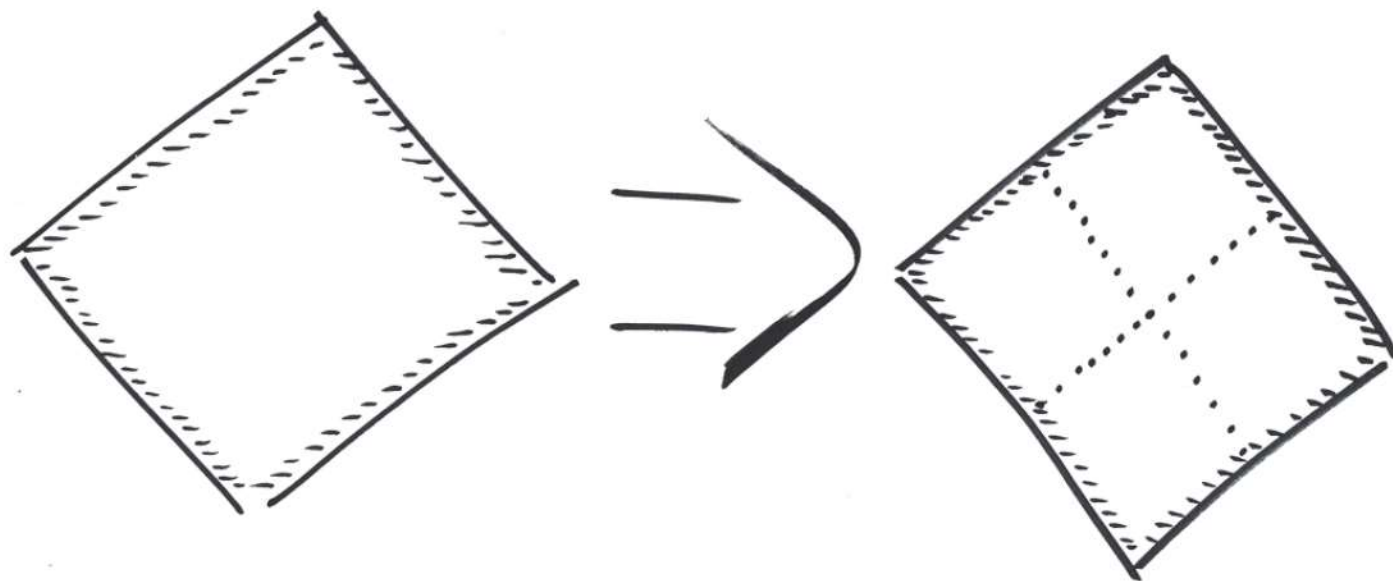
10 A (3) geredateerde systemen en boerderijtypen



10 A (5) Kwaliteit van de concepten.

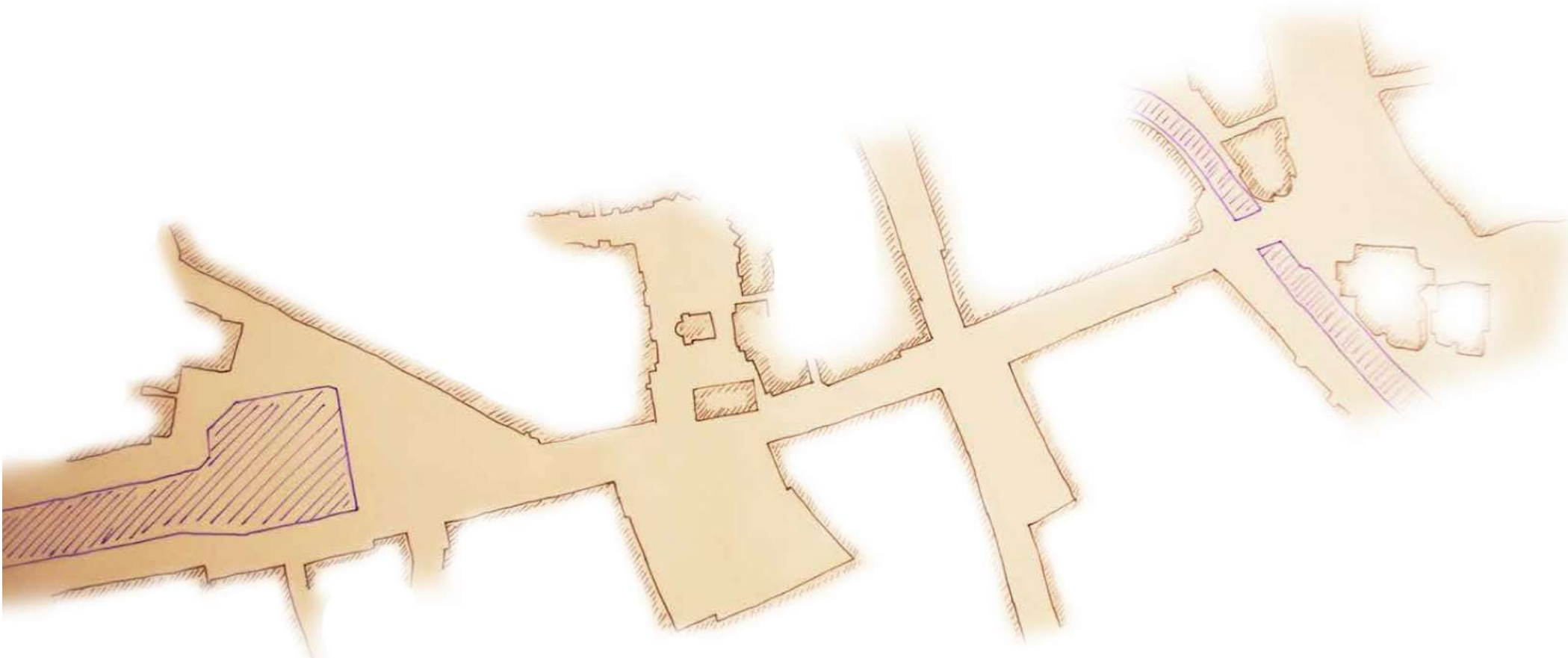
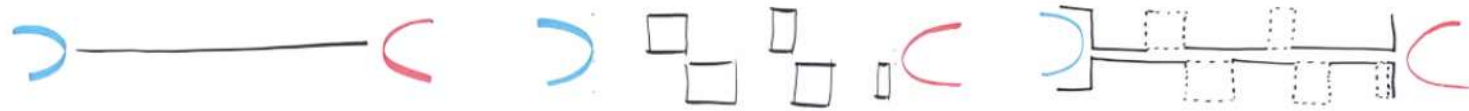






New Hoogstraat - Veghel

Spaces in the city (planning area):
Usable space.





Analyse Veghel (context):

City between river and canal.



Agricultural area between canal and river.
Forms the tension between the two dancers.



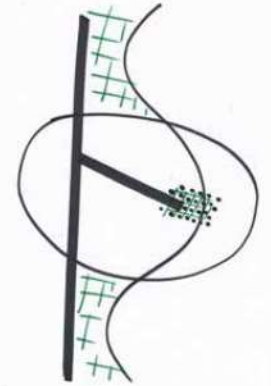
In this agricultural area, the residential city of
Veghel lies along the river Aa.



In this agricultural area, the Werkstad Veghel
is located alongside a canal along the
Zuid-Willemsvaart canal.



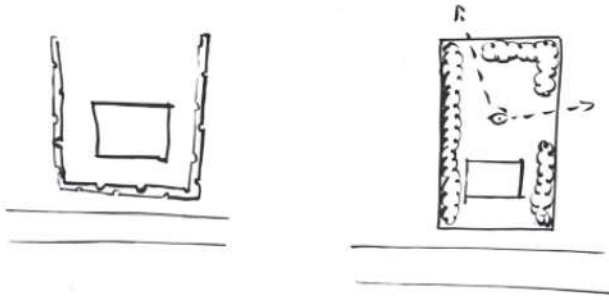
This port forms a guide to the river in the
centre of Veghel and also the recreational
network of the city.



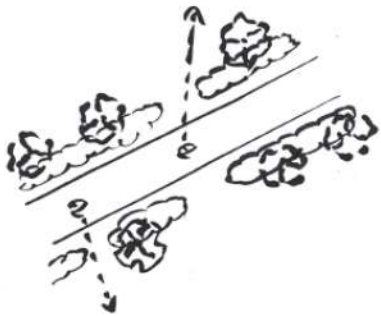
By creating a link between the canals and Aa,
there is the chance to withdraw the scenic wa-
ter dance into the city and thus connect Veghel
to Brabantpark.

Contextual landscape characteristics (middel):

Introducing an coulisse landscape in A urban environment.



Relation between building and road.

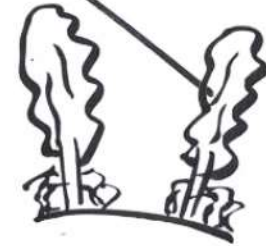


Lines of sight from the road to the fields.

Two types of landscape roads



Lane, trees of both sides.



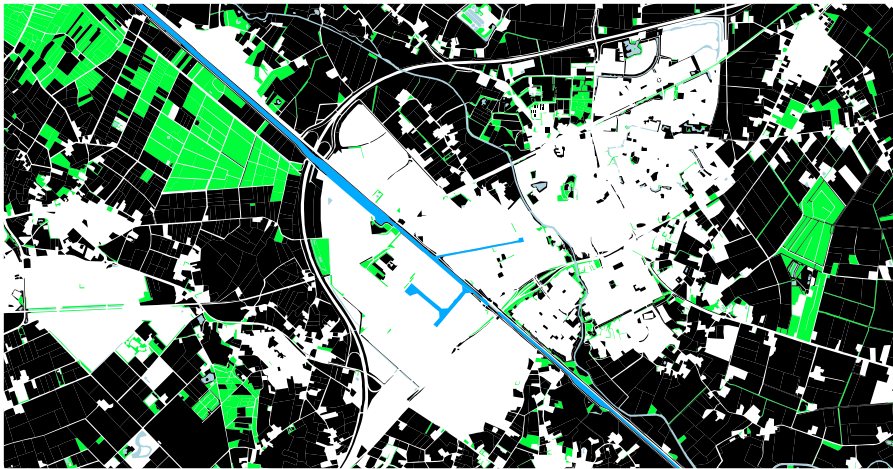
Lane, tree's of both sides combined with schrobbery



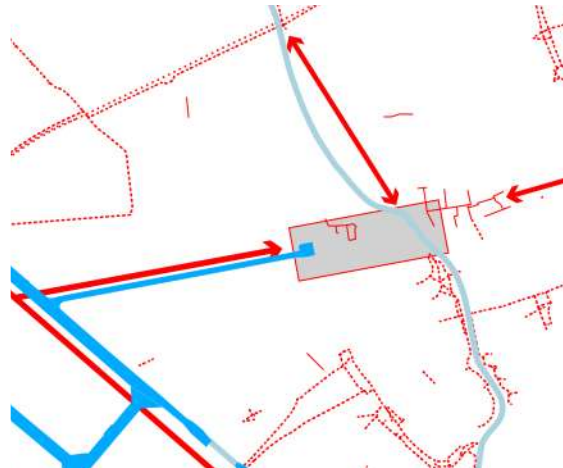
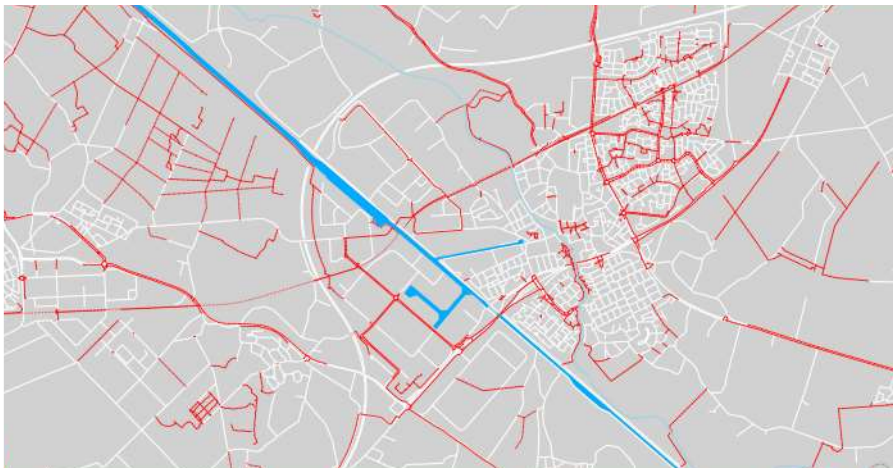
These lanes are often accompanied by forest patches.

Hoogstraat as a connector (assignment):

Green layer and recreational routes.



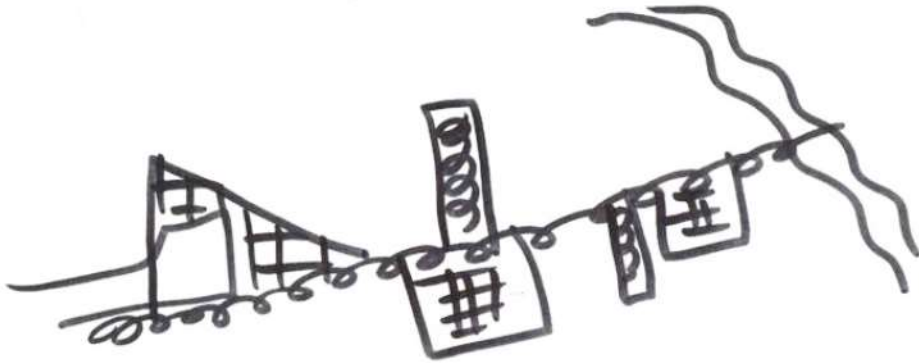
Connecting green layer to the harbor.



Connecting recreational slow traffic routes.

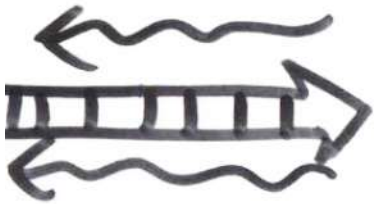
Connecting spaces (concept):

One main continuous line related to the open and closed urban spaces.

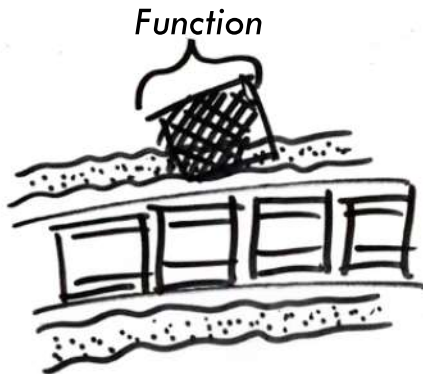


Main solutions (Design principals):

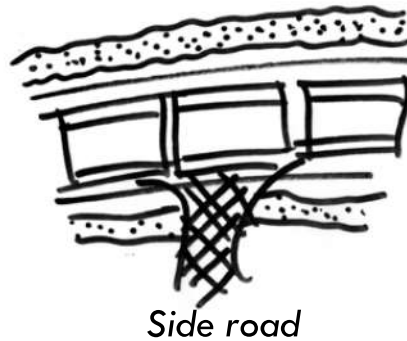
Bringing river en harbor together.



Organic river is introduced in the Hoogstraat from the east and harbor identity is introduced from the west side.



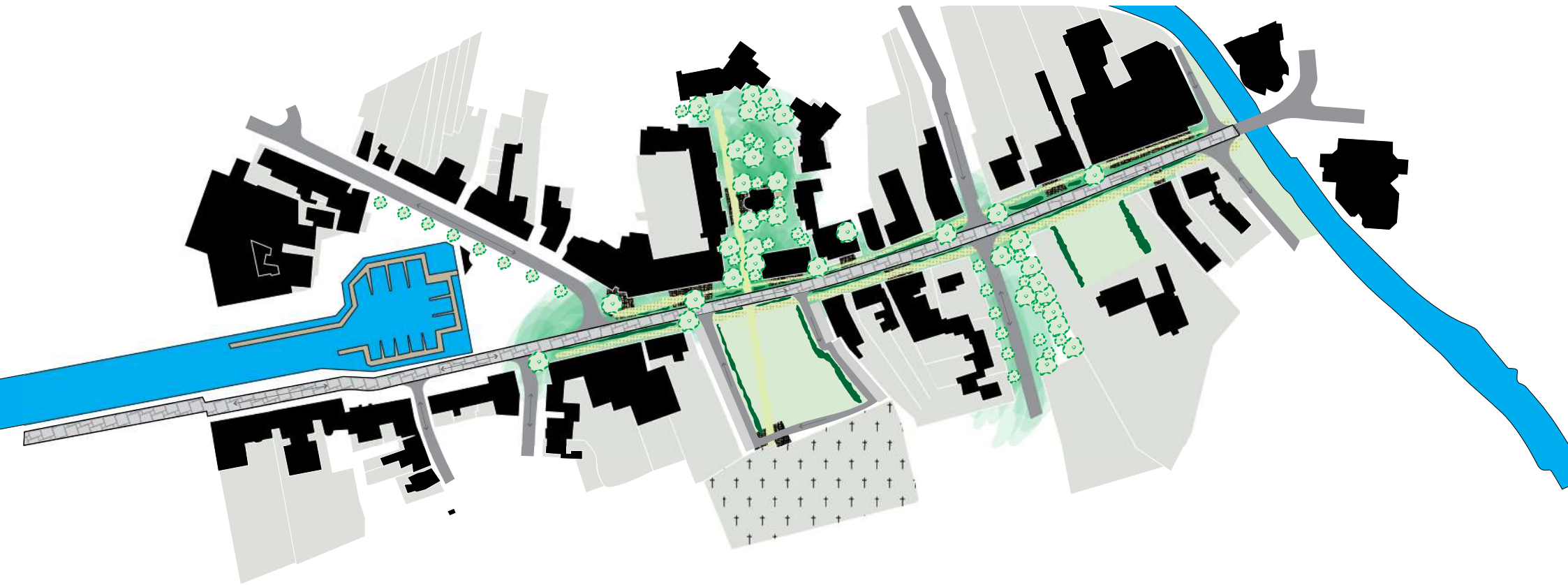
Functions along the road are highlighted by squares interrupting the natural sidewalks.



Side streets connect to the main street with their own pavement.

Hoogstraat in new style (Sketch):

Connecting waterbodies, spaces and urban centra.



The economic direction

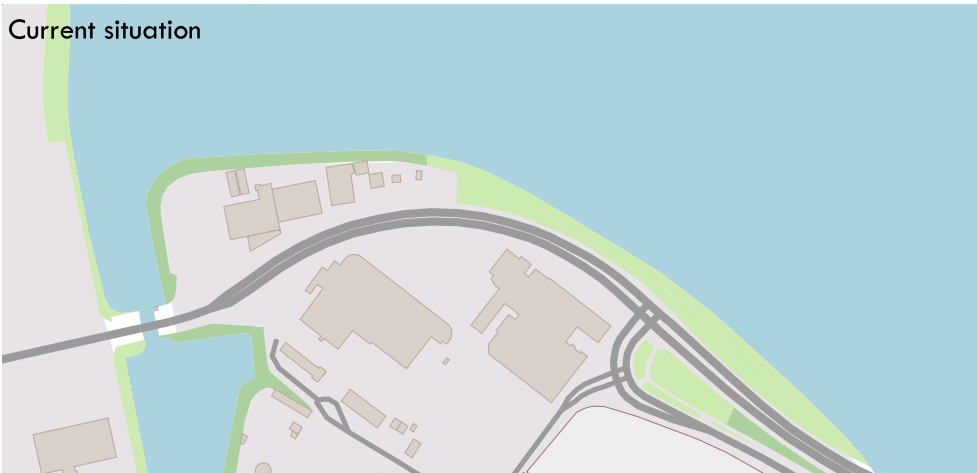
Sketch

Ertveld Plas, Zandzuigerstraat, 's Hertogenbosch



The floating companies can be situated in old inland vessels from around 1920 - 1960. These are often too small to be profitable and they get scrapped. Heritage workhorses becomes modern collaboration vessels.

Current situation



Visual Collage



Floating companies can fiscally connect to each other in case of collaboration. A grid of mooring pools enables maximum mooring and connecting flexibility.

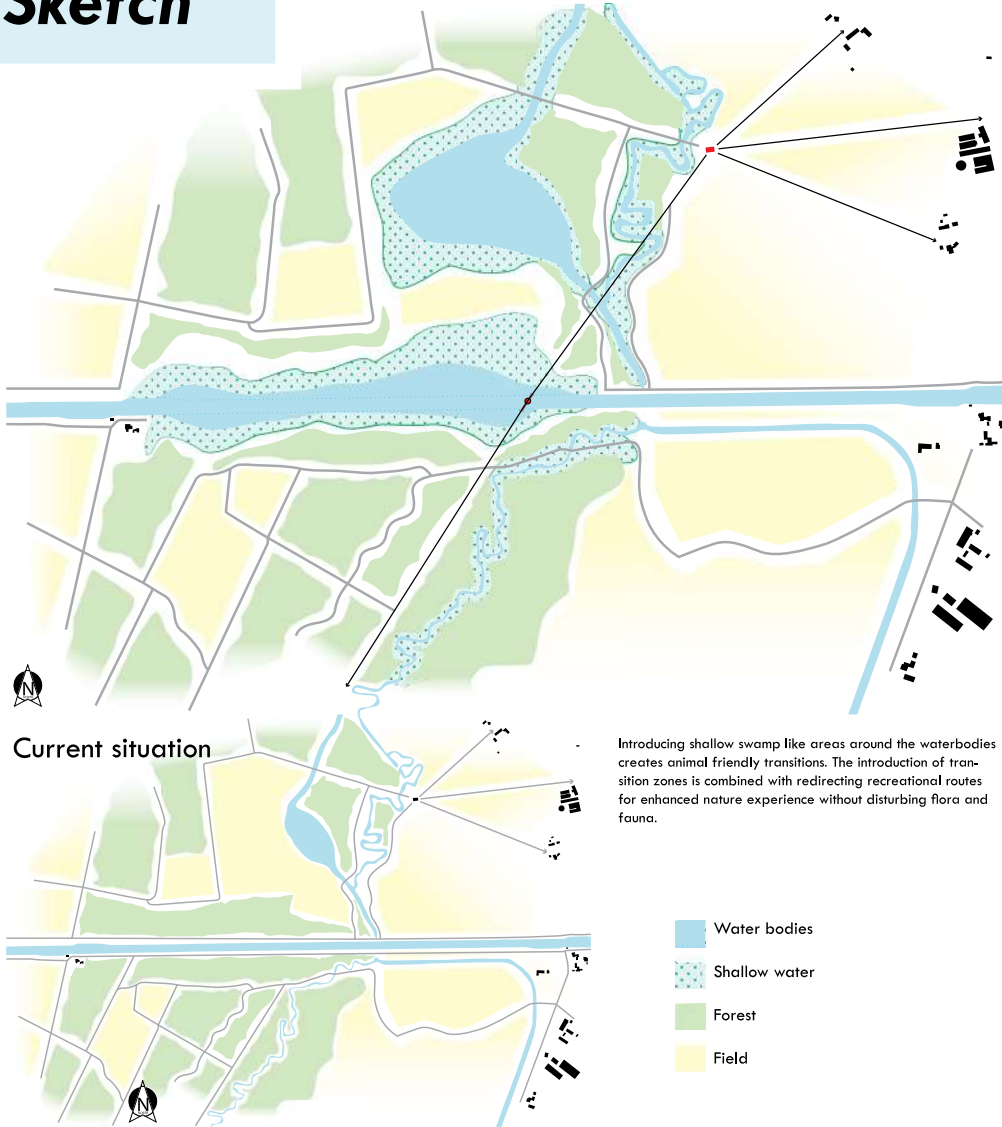
Current situation



The **nature** direction

Sketch

De Heilige Eik, Groene Woud close to Oirschot



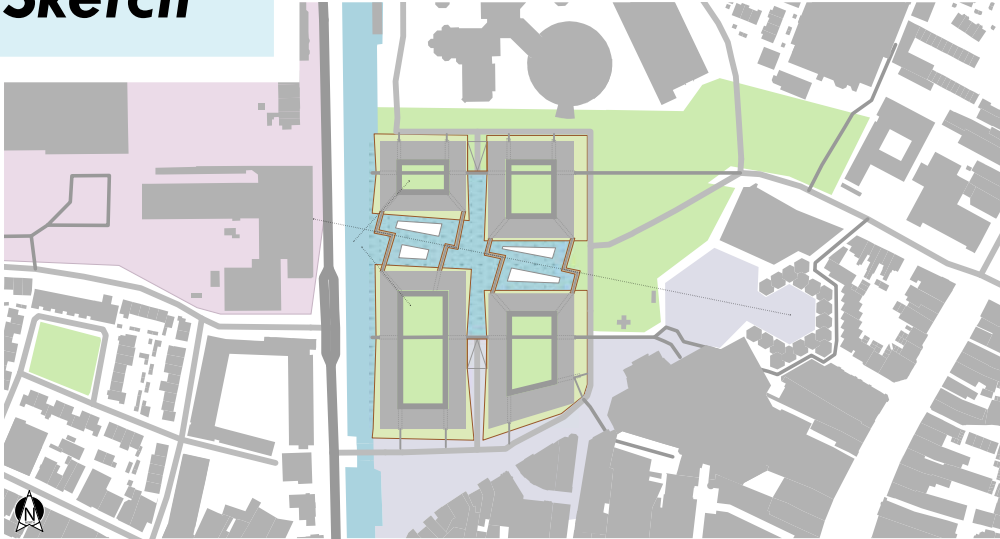
Visual Collage



The **urban** direction

Sketch

Kanaaldijk noord-oost, Helmond



On water, over water, under water, inside water and besides water. Urban experiment with routing and living in direct relation to water on a city centre location.

Visual Collage



Current situation



Current situation

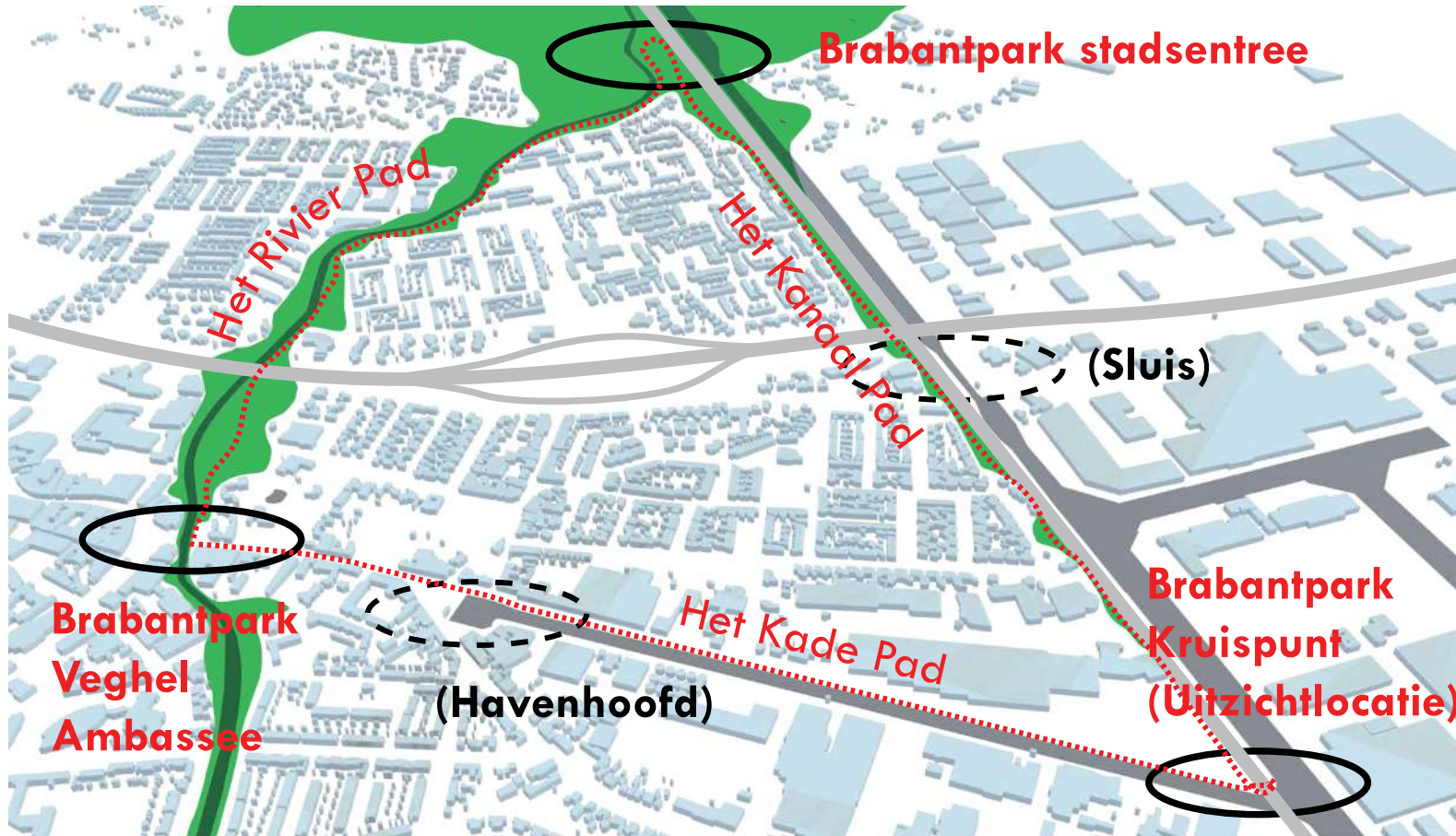


Veghel

Connecting the Brabantparc's

Legenda

Tekeningetjesreeks opgave Veghel



Two identities

Connecting the Brabantparc's

Legenda

Perspectief

- Water/varen
- "Vanaf het water is de drukte van de kade een toneelstuk vol drama en varriatie."

Route van vergelijking

- Boot-aanmeren-naar context

Matrials

- vorm vergelijking in lijnen
- serial vision foto's

Zuid-Willemsvaart

Man-made autonomous water structure



Op het water



Naar het Land



Langs het water



Naast het water

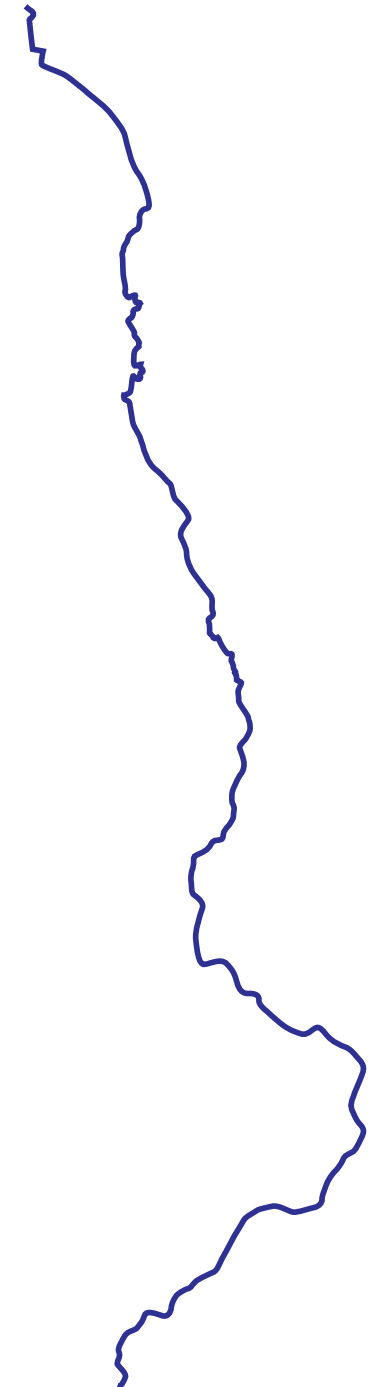


Rond het water



River Aa

Natural water structure



3 layers make the design

Legenda
3 lagen

Canal side, river side and ribbon

Concept

Drie karakteristieken komen samen



Space at the location

Planning area

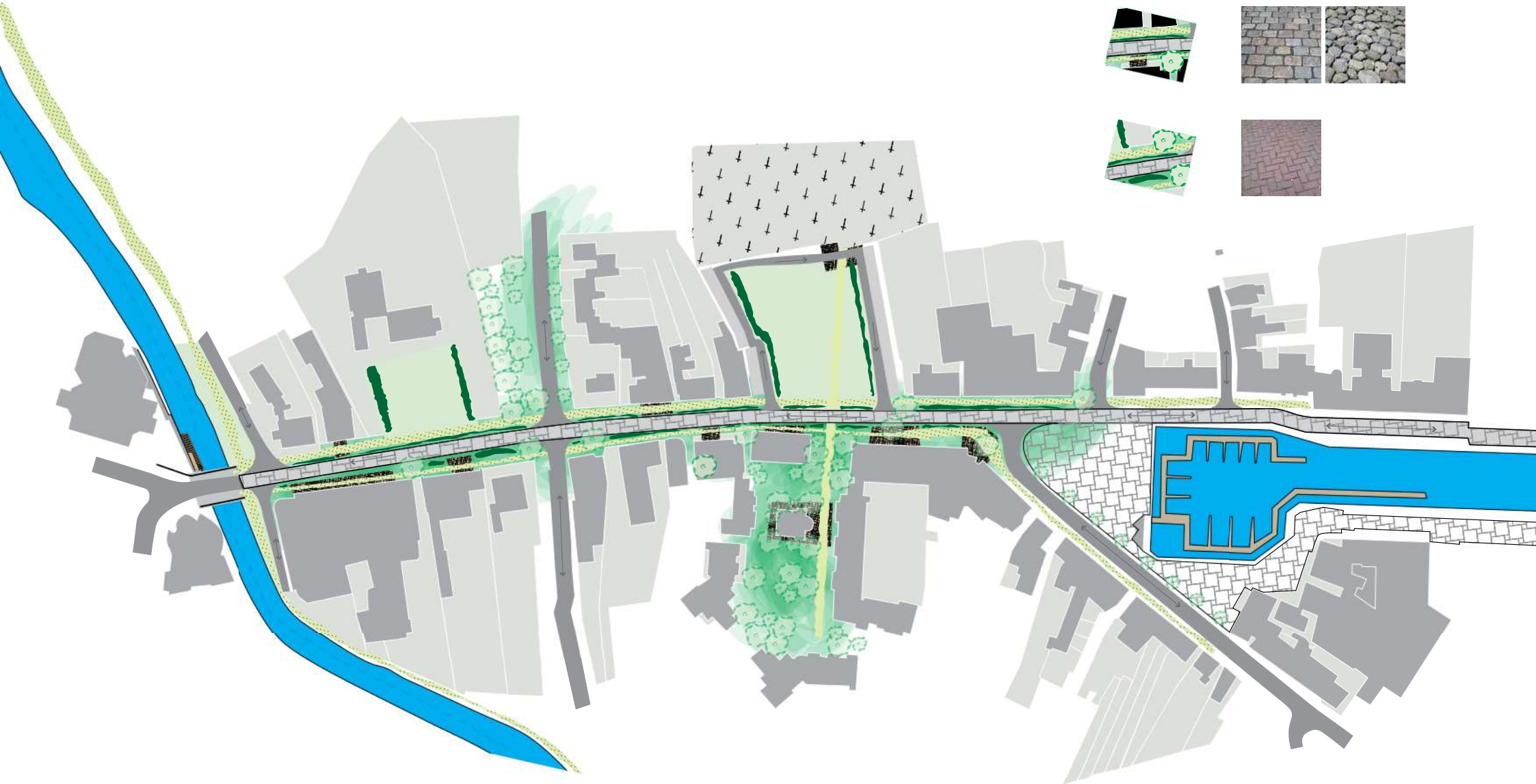
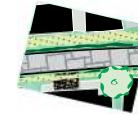
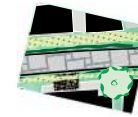
Legenda

Ruimte

Verbindingen

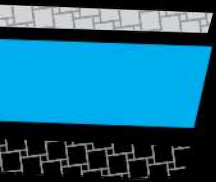
- nieuw

- bestaand



Materialisation

-Design ingredients in scheme

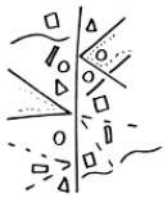


Design ingredients

In scheme

Onverstoobar
in het landschap.

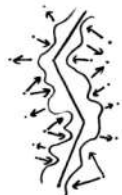
gelijkmoedig
in een altijd dezelfde vorm.



Geageerd
in het landschap.

Betrokken
in een altijd verranderende vorm.

Gevoelig
voor de omgeving.



without trees



without water



without watersides



without dikes



without towpaths



canal water



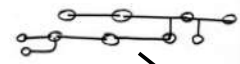
canal watersides



canal dikes



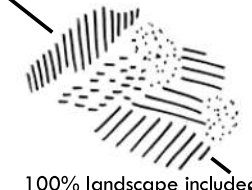
canal towpaths



100% autonomeus canal



Interacting with context



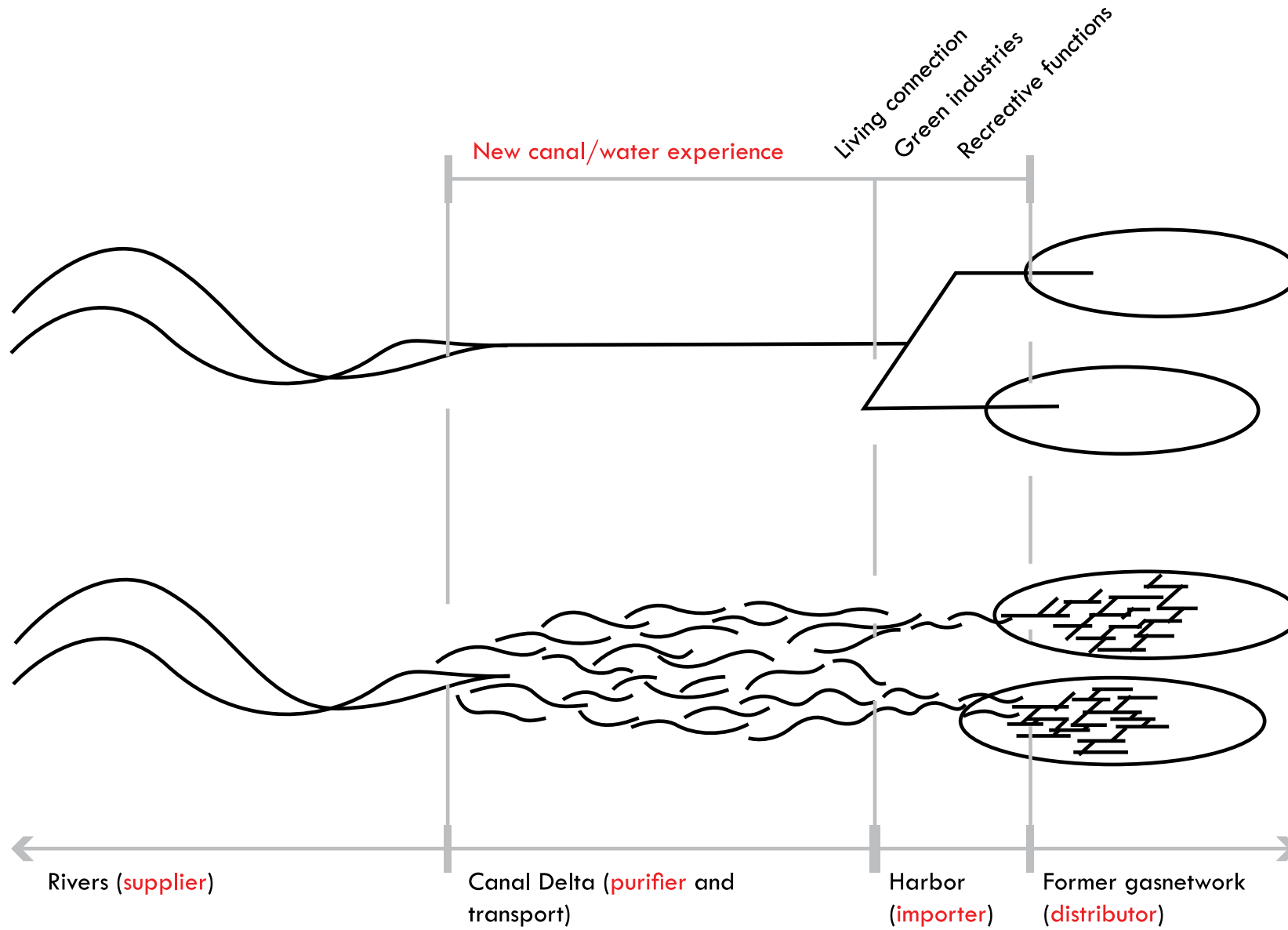
100% landscape included



Spinn off

- Water filtering
- Water storage

Water filtering.



The klimatological motivation - Water spillage in North-Brabant

Graduation - Pim Wagemakers
3 november 2017

We use a lot of **drinking water**!



Problem - Water spill

How much water do we use?

27 oktober 2017

We use drinking water to **survive**.



Toilet
28% / 35 liter



Washing:
18,8% / 23,5 liter



Douche and bath:
34,4% / 43 liter



Washing table:
2% / 2,5 liter



Consumption:
1,6% / 2 liter



General:
6,4% / 8 liter



Total:
125 liter every day

We use a **lot** of **drinking water**!



That ass much ass 11,5 tmes the IJsselmeer :



Problem - Hypothesis

Grey water reduces the water spill.

27 oktober 2017

Water **qualities**

Grey Water



Toilet
35 liter



Carwash
50 liter (about once a month)



Garden watering (+20 degree weather)
600 liter (60minutes by 10 liters every minut tap)

Surface water (swim water)



Washing:
23,5 liter



Douche and bath:
43 liter

Drinking water



Washing table:
2,5 liter



Consumption:
2 liter

Filtering **techniek**

General surface water



Surface water (swim water)



Drinking water





Klimatological motivation, water storage.

References

Designing for a connection? - Example the Peel

Graduation studio - Canals

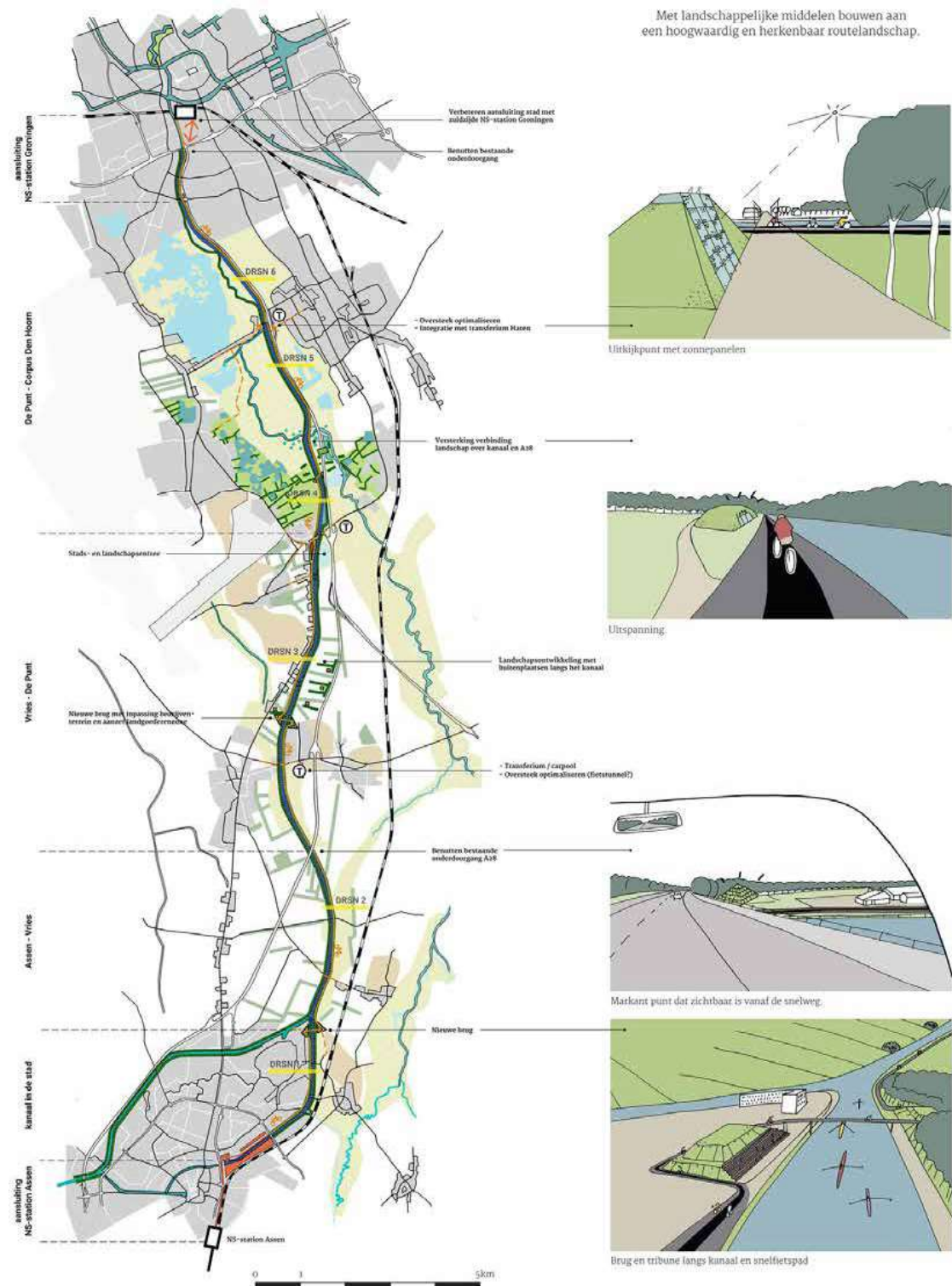
Pim wagemakers - 22 september 2017



De Peel is originally a peat collection area.



Met landschappelijke middelen bouwen aan een hoogwaardig en herkenbaar routelandschap.



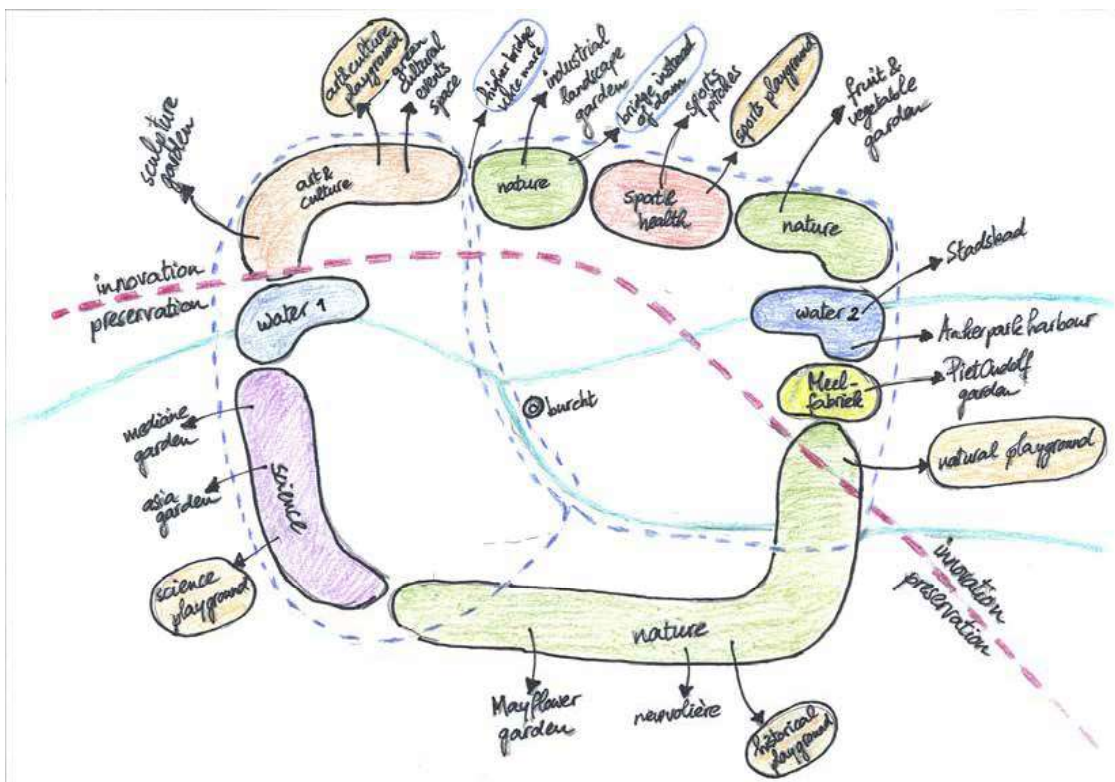
Reference Projects

1. Bike highway, connecting cities along the canal

Location: Groningen

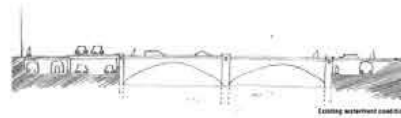
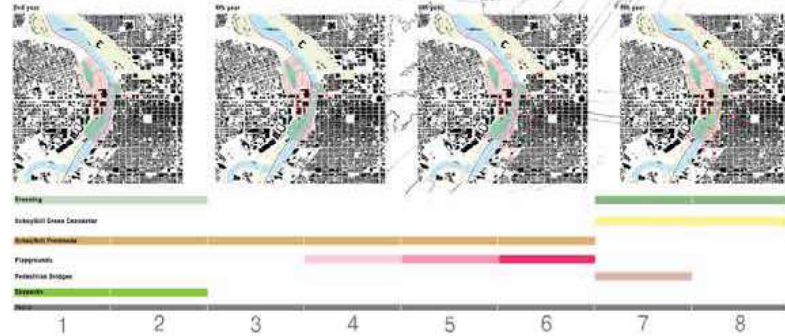
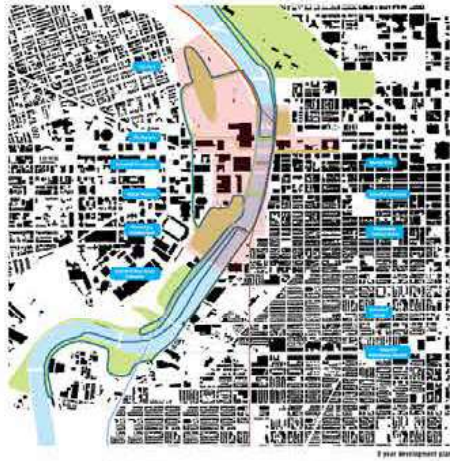
Company: H+N+S Landscape architects

Singlepark leiden



Philadelphia!

Philadelphia! We envision a brave waterfront vision for Philadelphia's future. A Philadelphia where 2 halves become one. A greater metropolitan city connected by architectural, urban, social and commercial interventions. A scheme that not just serves as literal connectors for the city, but aspires to be the familial and lifestyle heart of the city. Where nature, recreation and vibrant urban living pulsates, where families old and new gravitate towards.



3 Rail Park

Rail Park is good! Rail Park is good! Rail Park is good! Rail Park is good!



1 Market Walk

A pedestrian connection at the heart of new commercial activities. Providing a cheerful link between both banks, a welcomed contrast to the vehicular bridges of the river.

The Market Walk also acts as the new gateway into the city from the 30th Street Station.

4 Activities!

The redevelopment aims to introduce an array of sports, recreational and commercial activities to the neighbourhoods along the banks of the Schuylkill River.

3 Nature!

Building upon the existing green spaces of Fairmount Park and Schuylkill River Park, green tendrils along the river and bridges serve as connections, green lungs and live of activity in the city.

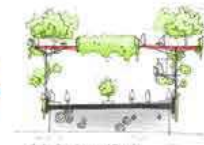
3 Naturalised Waterfront

By diversifying the banks of the Schuylkill are freed up for new uses. The concretised banks are re-naturalised.

Reed beds, native plants help to improve water quality. New natural habitats attract local biodiversity, allowing activities such as bird-watching and fishing.

1 Skypark

Built upon bridges along JFK Boulevard and Walnut Street, the Skyparks are filigree structures that serve as green urban retreats in the city and craft spectacular views of the Philadelphia landscape.



1 Bridges!

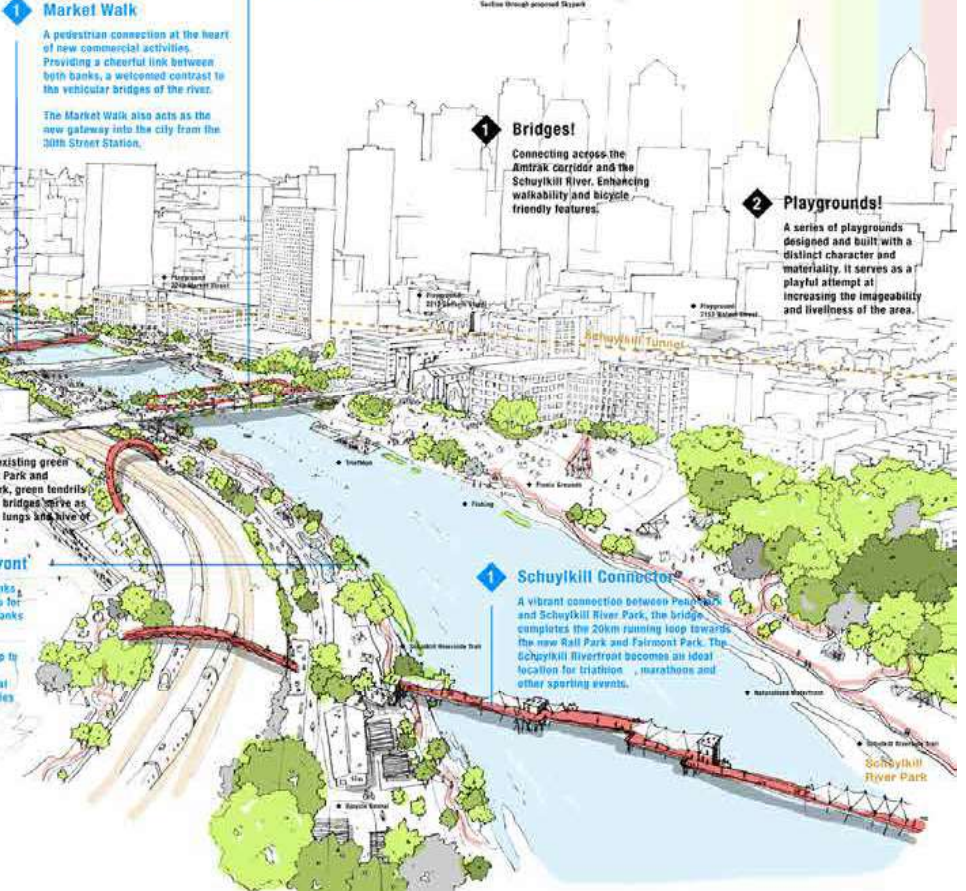
Connecting across the Amtrak corridor and the Schuylkill River. Enhancing walkability and bicycle-friendly features.

2 Playgrounds!

A series of playgrounds designed and built with a distinct character and materiality. It serves as a playful attempt at increasing the imageability and liveliness of the area.

1 Schuylkill Connector

A vibrant connection between Fairmount Park and Schuylkill River Park, the bridge completes the 20km running loop towards the new Rail Park and Fairmount Park. The Schuylkill Riverfront becomes an ideal location for triathlon, marathons and other sporting events.

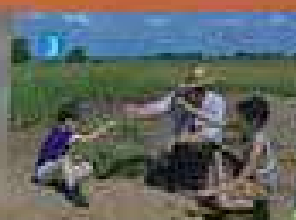
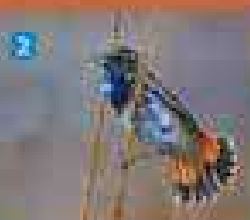
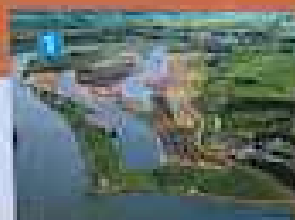


landschap en observeer de watervogels vanuit de vogelkijkhut.

[illegible]

Praktische information

Toegang	Van eenziggang tot eenzondigang. Het getuud is vromst en dreeg. Hluf op het wondgetuud. Laaten of wondgetuud schone antwoorden.
Wondgetuud	Dreeg de wondgetuud looft een hantgetuud.
Wondgetuud	De wondgetuud is vromstgetuud voor wondgetuud en wondgetuud die dreeg het hantgetuud.
Wondgetuud	Wondgetuud zijn wondgetuud wondgetuud, maar ze zijn niet wondgetuud op het hantgetuud.
Wondgetuud	Wondgetuud die wondgetuud wondgetuud. Wondgetuud de wondgetuud op wondgetuud in alle wondgetuud wondgetuud.



© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 105–112

[Klic je route](#)

- 1. **Yellow** = Zielsetzung, Die Umsetzung wird zu 100% durchgeführt
- 2. **Yellow** = Ziel erreicht (verbale oder implizite)
- 3. **Black** = Ziel erreicht (verbale und implizite)

- [Farklı konulara göre](#)
- [Yazarlara göre](#)
- [Okunma sıklığına göre](#)

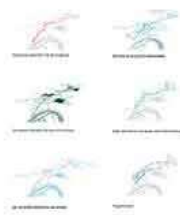


2.Park 21, Central park in the polder
Location: Haarlemmermeer
Company: Vista



2

AMBITIE EN DOELSTELLINGEN



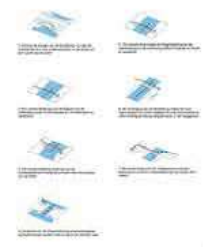
VAN BROM TOT MAAS



DOORBAANDE LIJN



BRUGEN



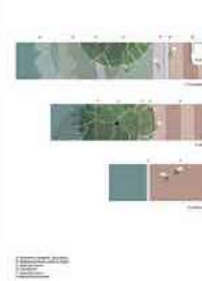
PROGRAMMA RIVIEROVERS



RÖPTE IDENTITEIT



NIJEUW ELEMENT: ONDEKLOOF



DE GÖNTWIE GRÖENE LIJN LANDS DE RÖPTE



PROFIEL SPELT IN OP CONTEXTE



WATERWANTHOEFOPGAVE RÖPTEBOM



GRÖEN ELAWE NETWERK



4

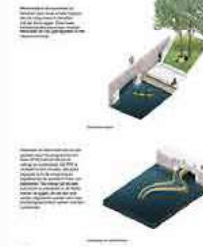
PLEKKEW AAN DE RÖPTE



KERKPLEIN



DETALES



BEELDONTAGE



5.2

LOWEBARDEW EN LINKER RÖPTEKADE



HAARDEW



PLAATKAART



DETALES EN DOORSMID



MONTAGE



Kwelwaterlandschap (Referentie projecten):

- De Amer
- Kristianstad
- Zomerdijken



Wetland centre
Kristianstad
Zweden

De Mark
Brabant
Rijkswaterstaat en Provincie Noord-Brabant

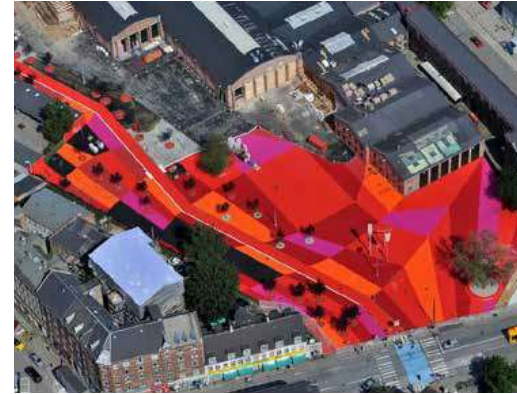
Zomerdijken
Nederlandse rivieren

Ruimtes in de stad (Referentie projecten):

- Citylounge
- Superkilen
- Boomgaard met variërende dichtheid



Citylounge
St. Gallen
Carlos Martinez



Superkilen
Kopenhagen
Superflex Group



Boomgaard



Weelde in de Beuningse Uiterwaarden



Maatregelen

1. verbeteren toegangsweg veerstop
2. vrijmaken stroombaan Moespotsewaard
3. aanleg hoogwatervluchtplaats
4. uitbreiding zachthoutoibos
5. aanleg poelen voor Kamselamander
6. ontwikkeling zachthoutoibos
7. ontwikkeling hardhoutoibos
8. inpassen klimaatbuffer, uitbreiden water
9. ontwikkeling kruiden / faunairijk grasland
10. schiereiland, ontwikkeling bijzondere plek
11. ontwikkeling wandel- / en struipaden
12. realiseren talud van grind en grofzand tbv oeverpioniers

Canal Lookbook

Heritage Images





Heritage future

Reference images



Belcrumbeach, Breda



Riverside, Nijmegen



Trap Wilhelminaberg, Limburg



Moerputten, 's-Hertogenbosch



old mines, Katowice



Vennbahn, Germany



Production Images (urban production)



Production Images (non-urban production)



Production future

Reference images (urban production)



Floating Office Suites - GCMarine



De Ceuvet, Amsterdam



Maashaven, Rotterdam



Bulk goederen



Amsterdam



Oosterhout container terminal

Production future

Reference images (non-urban production)



Fish production



Integrated farming, Rice and Fish Farming



Integrated farming , Shaded Pond Growing Vegetables



Aquaponics waterfiltering



Suikerriet



Integrated farming

<https://financialtribune.com/articles/economy-domestic-economy/34497/integrated-farming-a-rewarding-investment>

Nature Images





Nature future

Reference images



River



Delta



Recreation/toerisme



Living Images



Space around canal, staked houses



space around canal, famely houses



no space around canal



Living future

Reference images



Directly connected



Indirectly connected



Hybrid between connected direct and indirect

