

2nd July, 2021
P5 Presentation

Reterritorialising Zuidoost

towards sustainable, liveable and just assemblages in Amsterdam Zuidoost

Ganesh Babu R P
5032644

1st mentor: Dipl.ing. Birgit Hausleitner
2nd mentor: Dr. Marcin Dąbrowski

a.

Notions

a. Notions

1 Motivation

Utopias

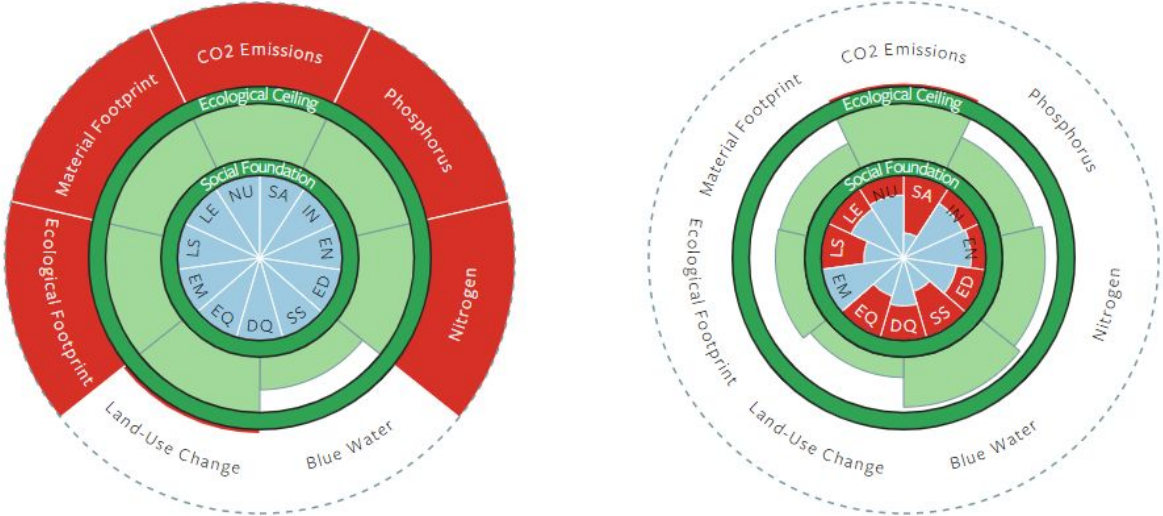


The Garden of Earthly Delights by Hieronymus Bosch

a. Notions

2 On Sustainable Development

Netherlands vs India | Social and Ecological Sustainabilities



O'Neill, D.W., Fanning, A.L., Lamb, W.F., and Steinberger, J.K. (2018). A good life for all within planetary boundaries. Nature Sustainability 1, 88-95. doi: 10.1038/s41893-018-0021-4.

With the price system at its core, assuming that almost all human activity is a form of economic calculation

Neoliberal policies has led to an unequal distribution of burden and benefits in a society.

Neoliberalism

Netherlands ranked 119th in the world in 2008 in terms of wealth inequality measured through Gini coefficients and now it is the world's most unequal nation in terms wealth distribution by 2019.

People as social beings by nature are turned against one another through competition and individualism in a neoliberal world. A third of the Dutch population feel lonely and over a million people feel extremely lonely in the Netherlands.

01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

Operationalising
Change

06

Design
Testing

01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

Operationalising
Change

06

Design
Testing

1. Defining Problem and Methods

1.1 Housing Crisis



Makelaarsvereniging waarschuwt: nu echt een woningcrisis

Ben je op zoek naar een huis en heb je een gemiddeld salaris? Dan heb je waarschijnlijk een probleem. Er staan minder huizen te koop terwijl de prijzen van de huizen maar stijgen en stijgen – net als de vraag naar woningen. De Nederlandse Vereniging van Makelaars (NVM) luidt de noodklok.

50,000 New Homes

Er was al woningnood in Nederland, maar die is nu veranderd in een woningcrisis. De krachten op de woningmarkt zijn nog verder toegenomen.

Housing shortage: 845,000 homes must be built by 2030

In the coming decade, 845 thousand new homes must be created in the Netherlands to prevent the housing shortage from rising further, according to the report State of the housing market 2020 that Minister Kasja Ollongren of Home Affairs presented to parliament. RGD reports.

Housing crisis is now an emergency, says real estate agents' chief

January 9, 2020

Housing shortage: 845,000 homes must be built by 2030

New housing under construction in Amsterdam. Photo: DutchNews.nl

The housing crisis in the Netherlands has turned into a housing emergency, the head of the Dutch real estate agents' association said on Thursday.



ortage in the Netherlands? Explained.

There is a huge housing crisis in the Netherlands. In the major cities, finding a place to live is expensive and difficult. But, particularly for people who want to buy their first homes, the market has become a nightmare over the last five years. A combination of regulations, population growth, and economics has left the Netherlands with way less housing than it needs.

“The Netherlands currently has a shortage of 331 thousand homes, 4.2 percent of the housing stock. The aim is to reduce that to 2 percent in 2035. In that year, the Netherlands is expected to have 18.8 million inhabitants - which means that homes must be built not only to make up for the current shortage, but also to meet the increasing demand.”
 -Minister for Home Affairs Kasja Ollongren

1. Defining Problem and Methods

1.2 Climate Crisis

i
Rising sea levels to be much worse than previously predicted by 2050, endangering millions

Researchers called it an 'economic and humanitarian catastrophe'

The New York Times

Rising Seas Will Erase More Cities by 2050, New Research Shows

CNN
Rising sea levels threaten hundreds of millions -- and it's much worse than we thought

BBC
Climate change: Sea level rise to affect 'three times more people'

INDEPENDENT
Rising sea levels pose risk to three times more people than originally thought, research shows

Parts of Mumbai, Shanghai and Bangkok are at risk of being wiped out

Climate Crisis

REUTERS
Far more people at risk of rising seas than feared - climate study

Mirror
Rising sea levels could wipe out entire cities by 2050, scientists warn

Researchers from Climate Central found that hundreds of millions more people than previously thought live on land at risk from coastal flooding linked to climate change

BBC NEWS
Climate change: 'Hothouse Earth' risks even if CO2 emissions slashed

Earth is '10C away from Hothouse State that threatens the future of humanity'

NewScientist
Global warming may become unstoppable even if we stick to Paris target

The Guardian
Domino-effect of climate events could move Earth into a 'hothouse' state

Leading scientists warn that passing such a point would make efforts to reduce emissions increasingly futile

ALJAZEERA
Earth at risk of tipping into hellish 'hothouse' conditions

World could be entering warmer period that would see average temperatures rise by between four and five degrees Celsius.

itv NEWS
Earth 'just decades away from global warming tipping point which threatens future of humanity'

1. Defining Problem and Methods

1.2 Climate Crisis



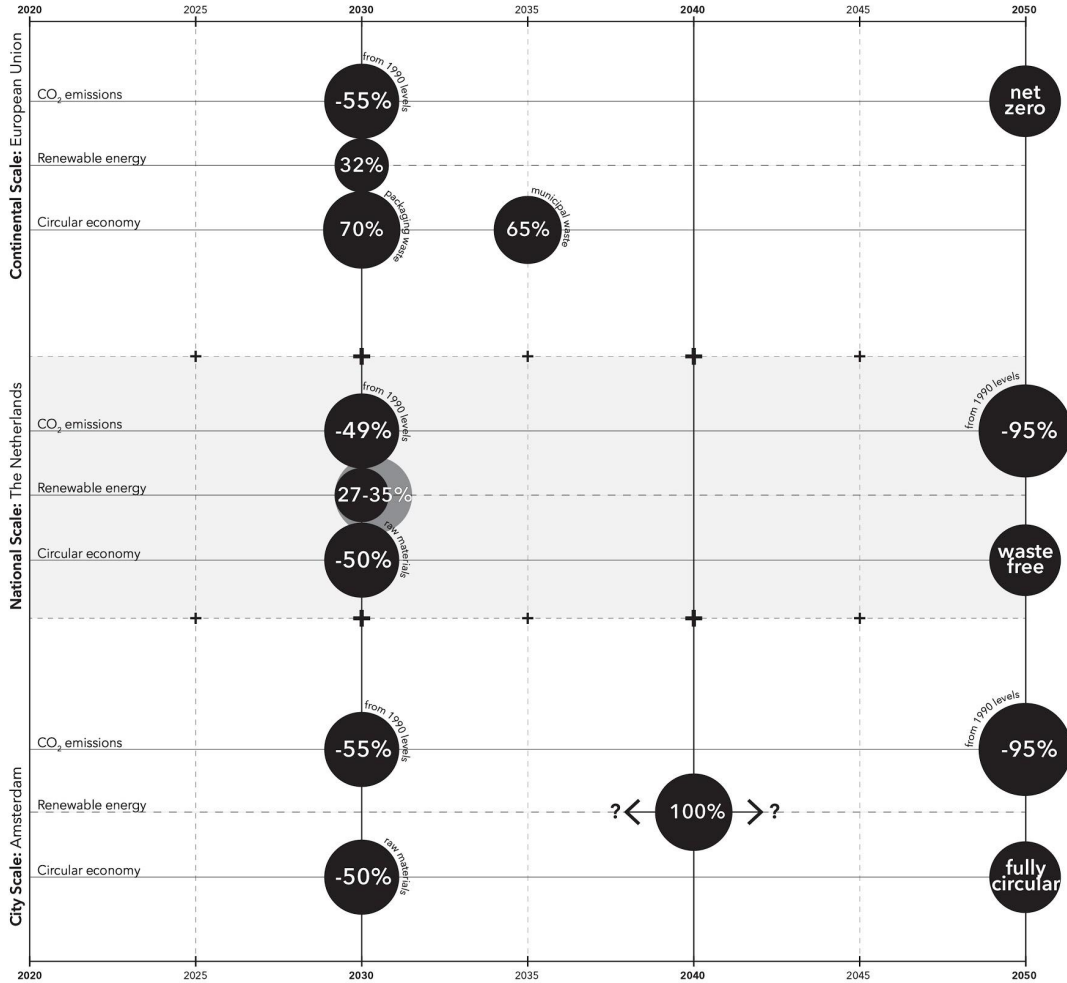
continental scale



national scale

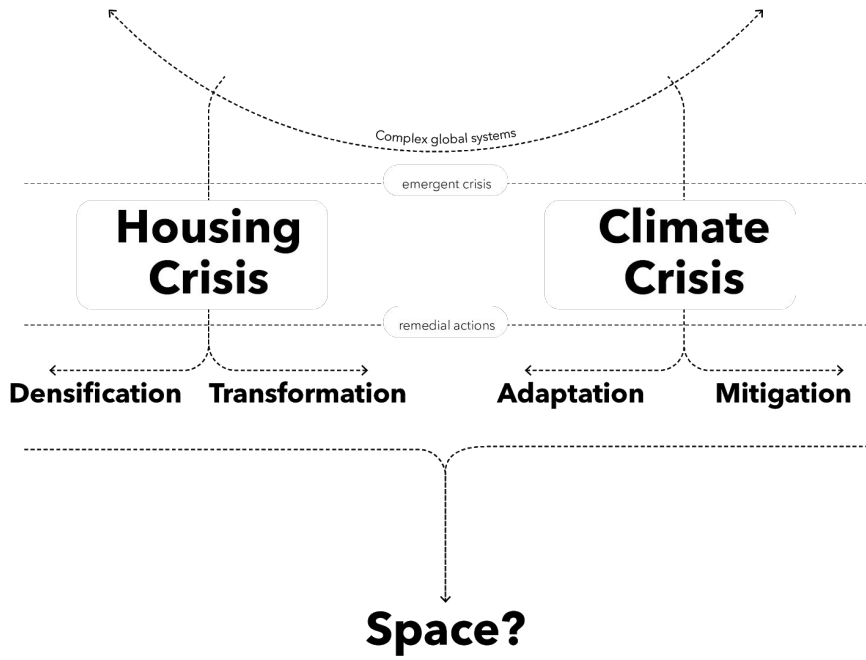


city scale



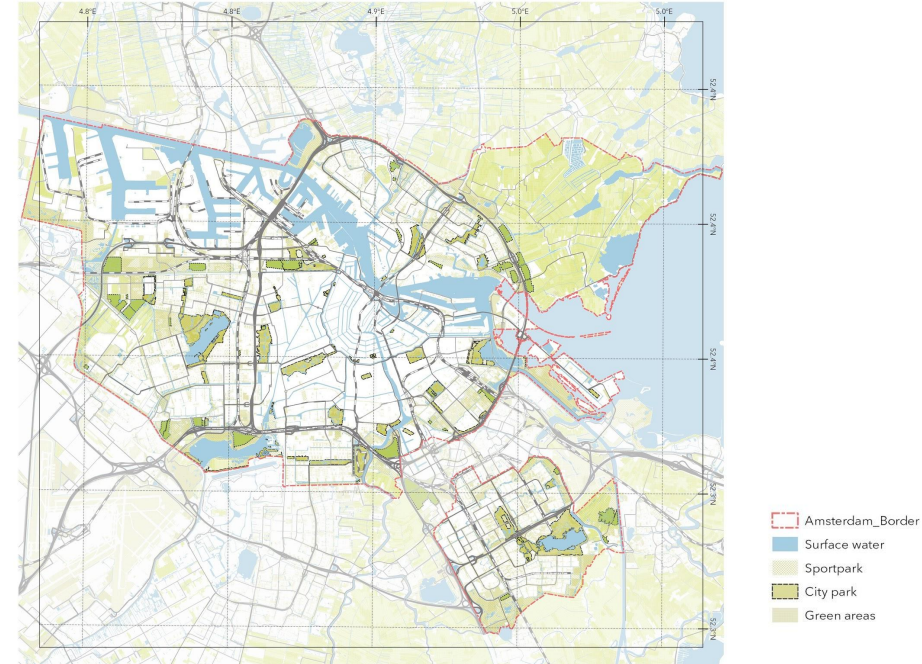
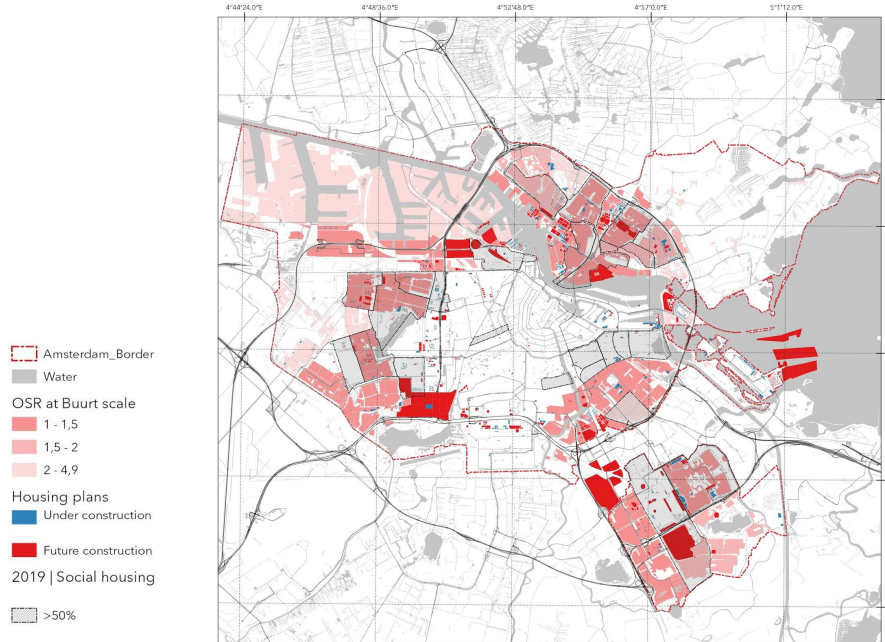
1. Defining Problem and Methods

1.3 Potentialities



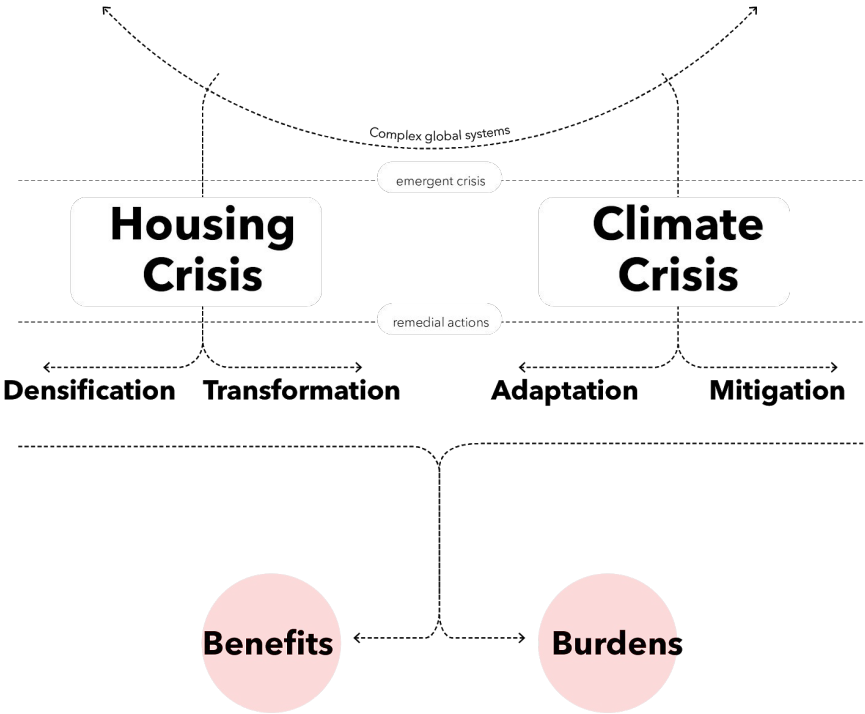
1. Defining Problem and Methods

1.3 Potentialities



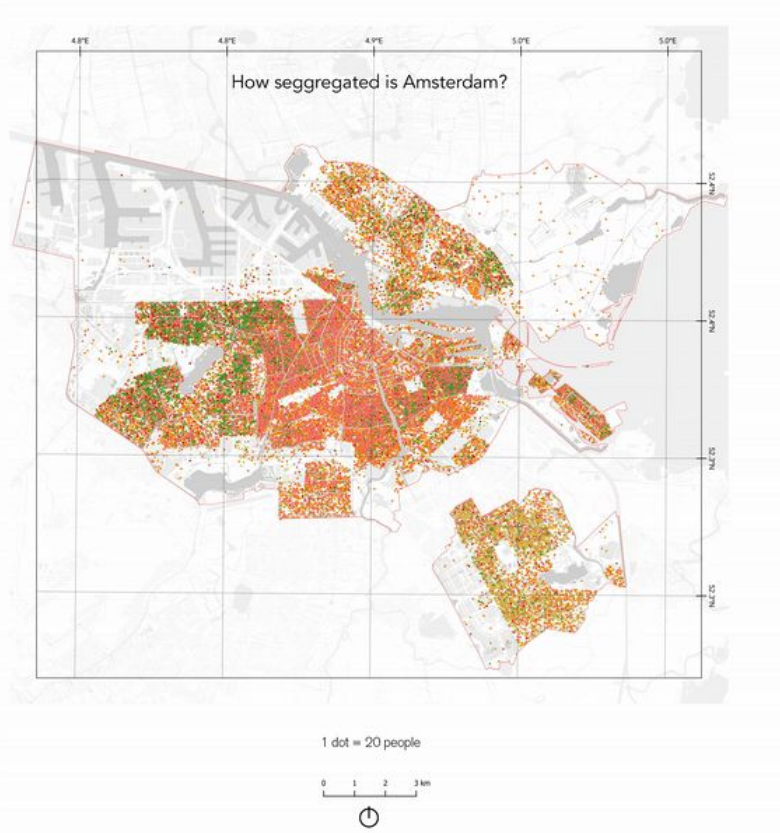
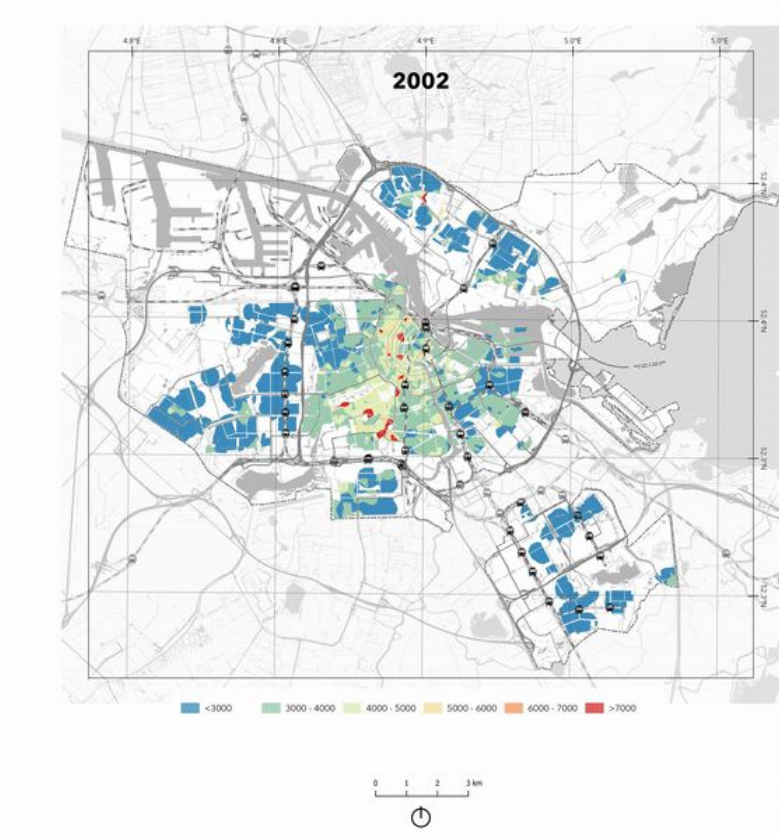
1. Defining Problem and Methods

1.4 Current Trends



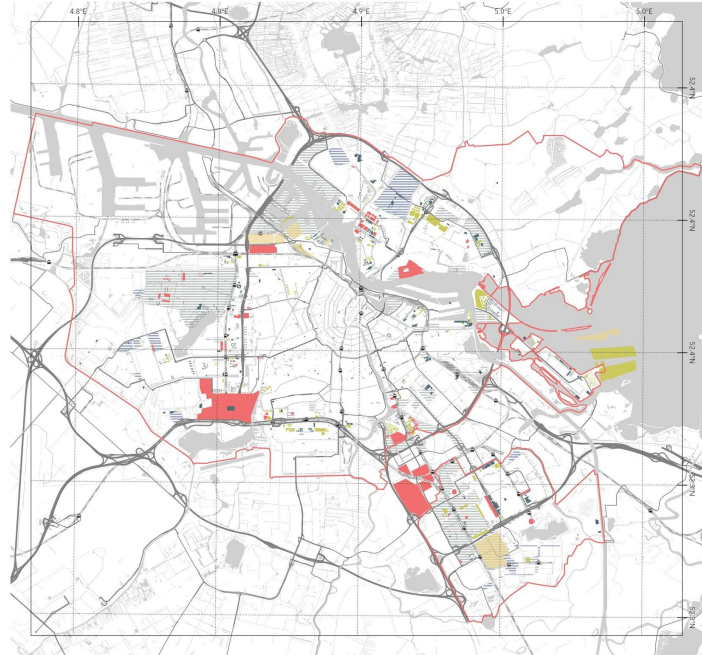
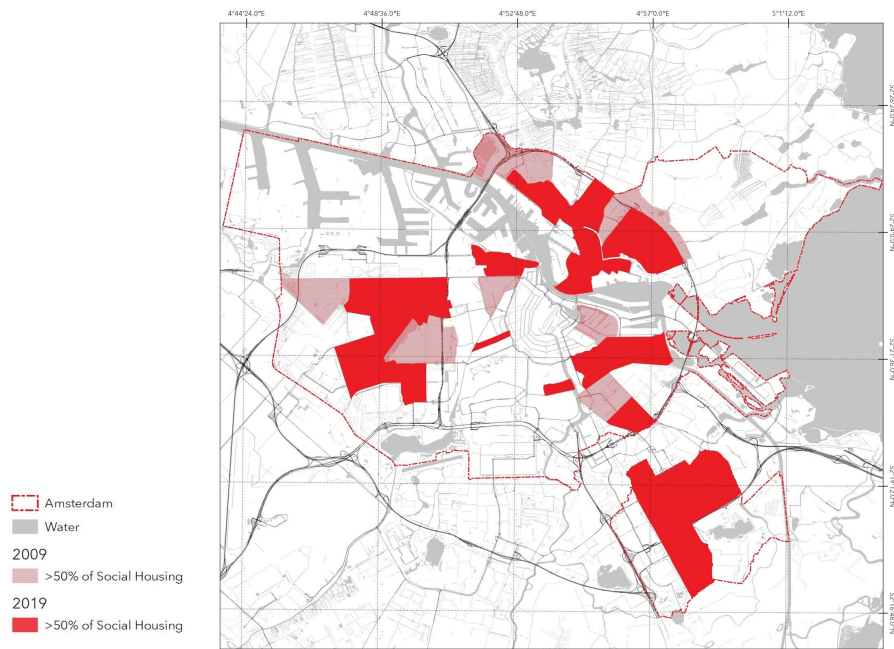
1. Defining Problem and Methods

1.4 Current Trends



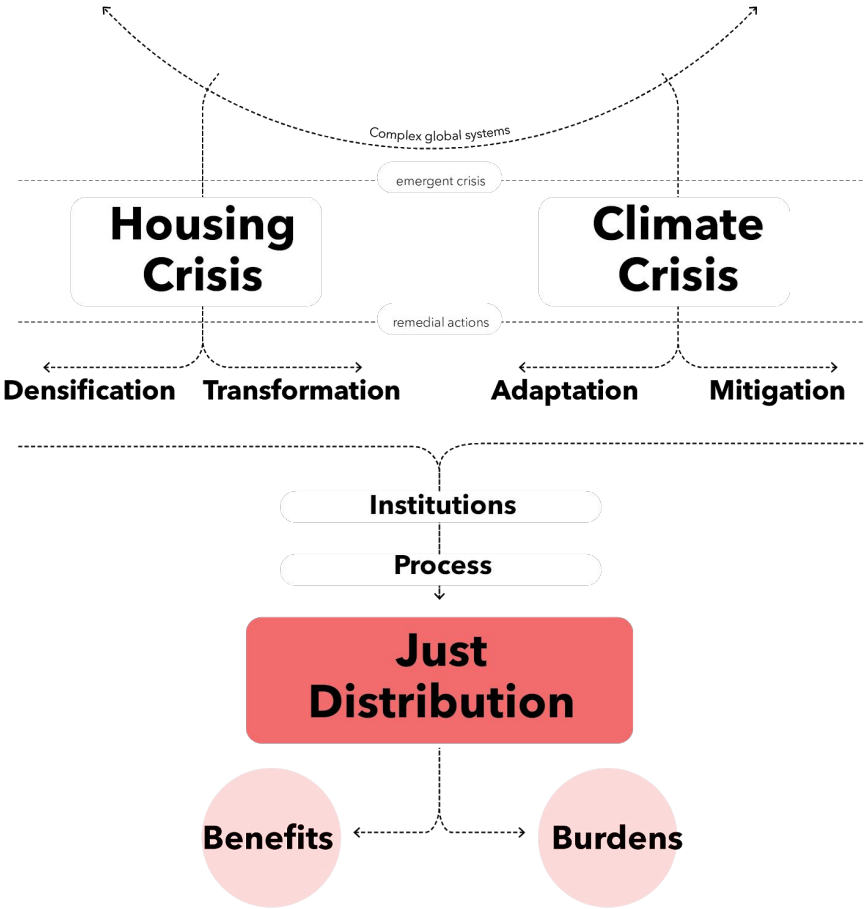
1. Defining Problem and Methods

1.4 Current Trends



1. Defining Problem and Methods

1.5 Problem Statement



1. Defining Problem and Methods

1.5 Problem Statement

...since the early 90s, rising neoliberalism, changing national economic and housing policies have created segregation and segmentation of the housing stock and people. Existing short-sighted trends in urban development processes that are fragmented pose a threat towards a just city, as seen evidently in Amsterdam Zuidoost district which consistently ranks poorly in social, economic and spatial dimensions of well being.

The city is currently in the process of building a large stock of new housing within the existing city(densification),

while also transitioning to a different socio-technical regime in terms of energy, economic logic (circular economy) and climate Adaptation.

Therefore, it is crucial to adopt an integrated approach towards urban development at this juncture taking into consideration the socio-economic and ecological demands of Amsterdam Zuidoost.

One that enables vulnerable populations to be a part of the process leading to a just distribution of its resultant benefits and burdens.

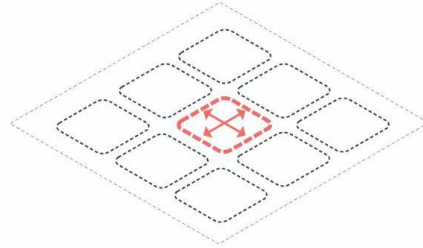
1. Defining Problem and Methods

1.5 Problem Statement

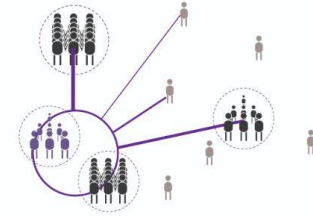
Sectoral



Spatial

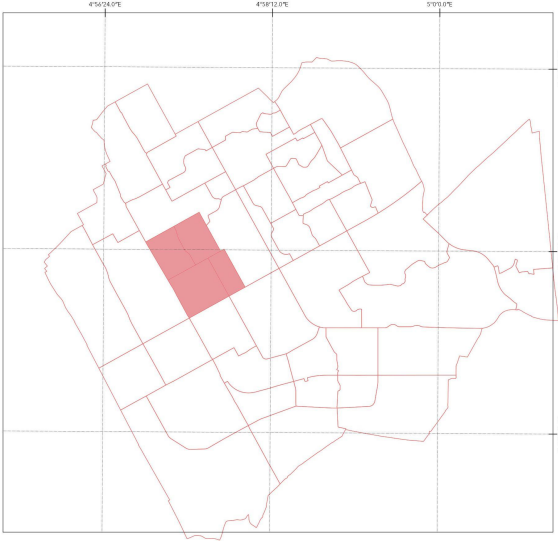
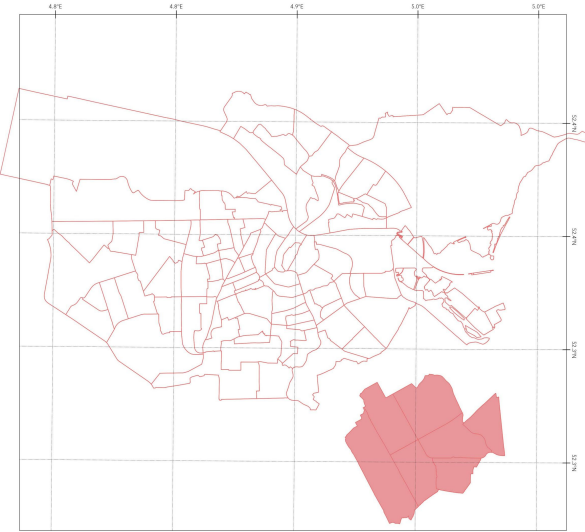


Stakeholders



1. Defining Problem and Methods

1.5 Problem Statement



1. Defining Problem and Methods

1.6 Research Question

How can the fragmented and vulnerable neighborhoods of Amsterdam Zuidoost,
become liveable, sustainable, and just,
through an integrated urban development process?

3. Methodology

3.2 Sub Research Question - Methods

Sub-Research Questions

SRQ1 How did the urban development process of Amsterdam Zuidoost influence its social, spatial, economic and environmental realities?

SRQ2 What are the threats and potentials regarding densification and socio-technical transition towards sustainability in Amsterdam Zuidoost?

SRQ3 What is the relationship between livability, sustainability and spatial justice in an urban development context?

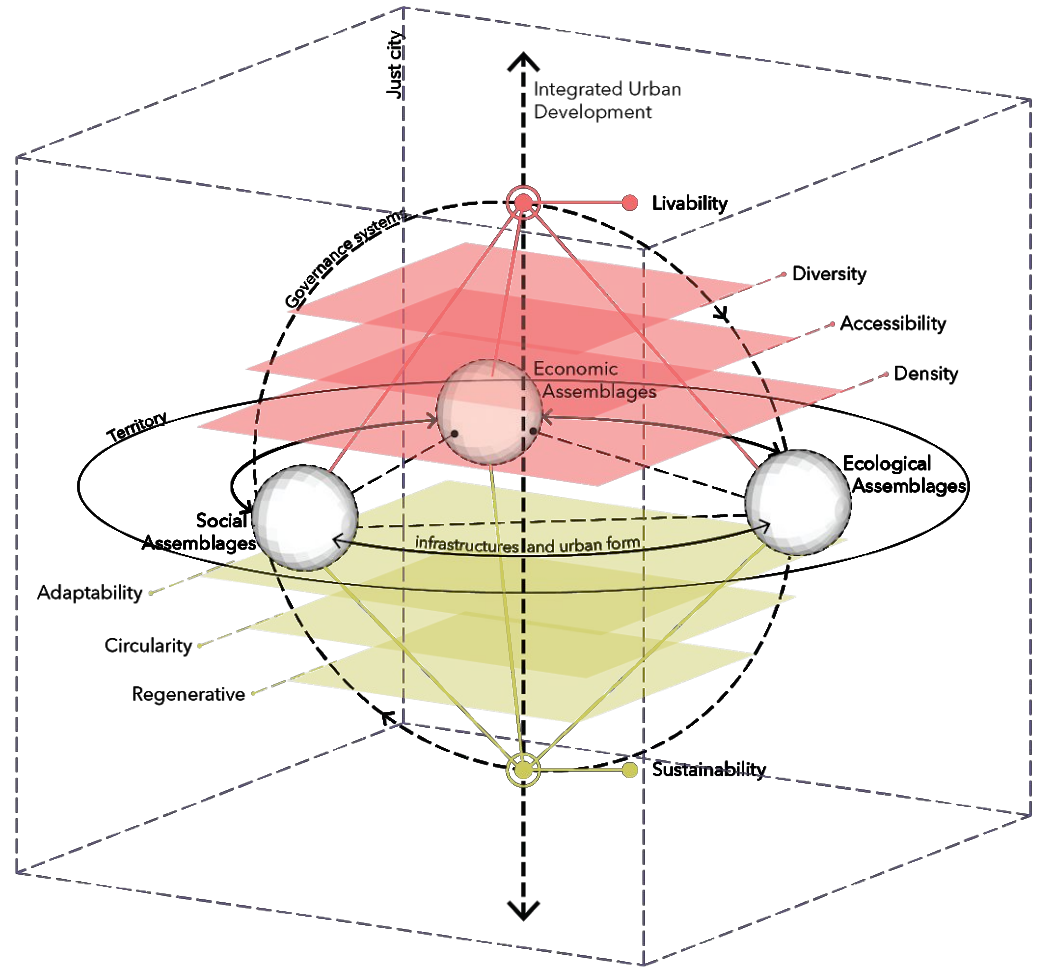
SRQ4 What are the patterns of liveable, sustainable and just settlements?

SRQ5 How to improve the affordance of urban form in Zuidoost towards socio-technical transitions?

SRQ6 How to improve the agency of low-power stakeholders in the procedural aspects of an integrated urban development process?

3. Methodology

3.4 Conceptual Framework



01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

Operationalising
Change

06

Design
Testing

2. Analysis

2.1 Accessibility

Opportunities

Urgencies

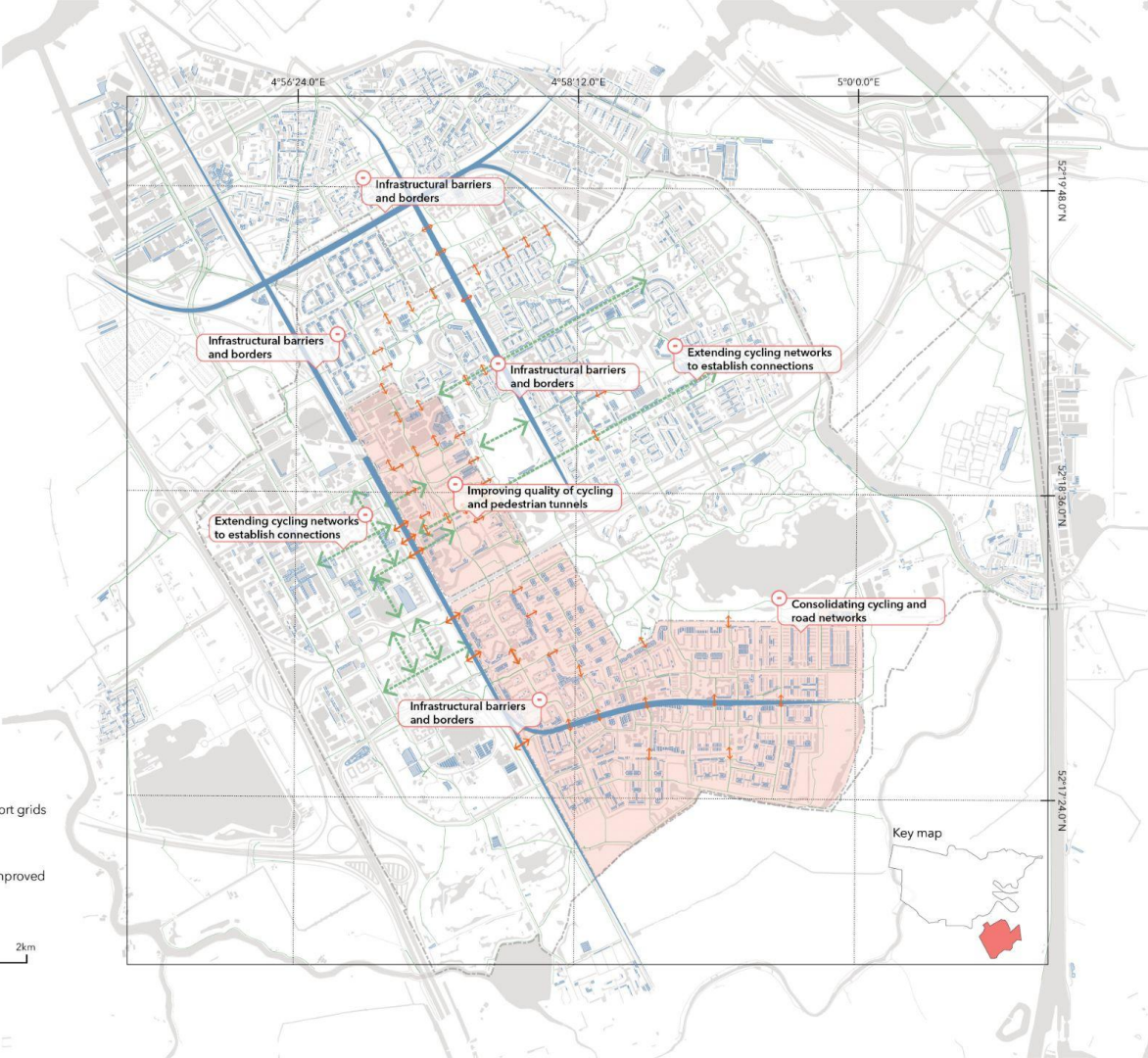


2. Analysis

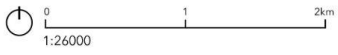
2.1 Accessibility

Opportunities

Urgencies



- Infrastructural barriers
- Consolidating and rationalising transport grids
- Improving cycling access
- Pedestrian and cycling tunnels to be improved
- Parking area



Key map

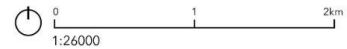


2. Analysis

2.2 Density

Opportunities and Urgencies

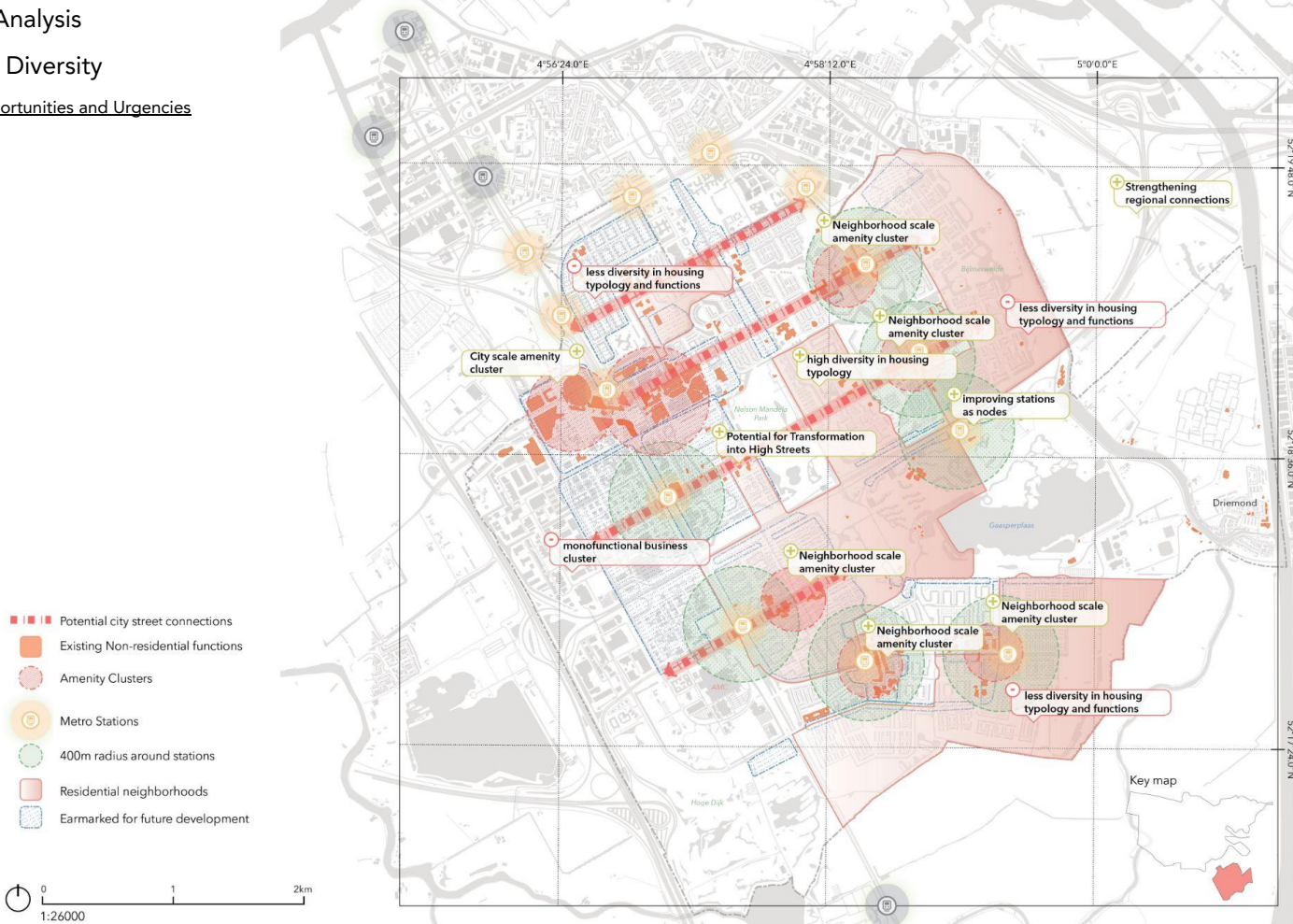
- Potential for high rise tower blocks
- Existing Low density blocks
- Existing Low Business Density
- Potential for slab buildings
- Train station area development
- New area development Potential



2. Analysis

2.3 Diversity

Opportunities and Urgencies



- Potential city street connections
- Existing Non-residential functions
- Amenity Clusters
- Metro Stations
- 400m radius around stations
- Residential neighborhoods
- Earmarked for future development



Key map

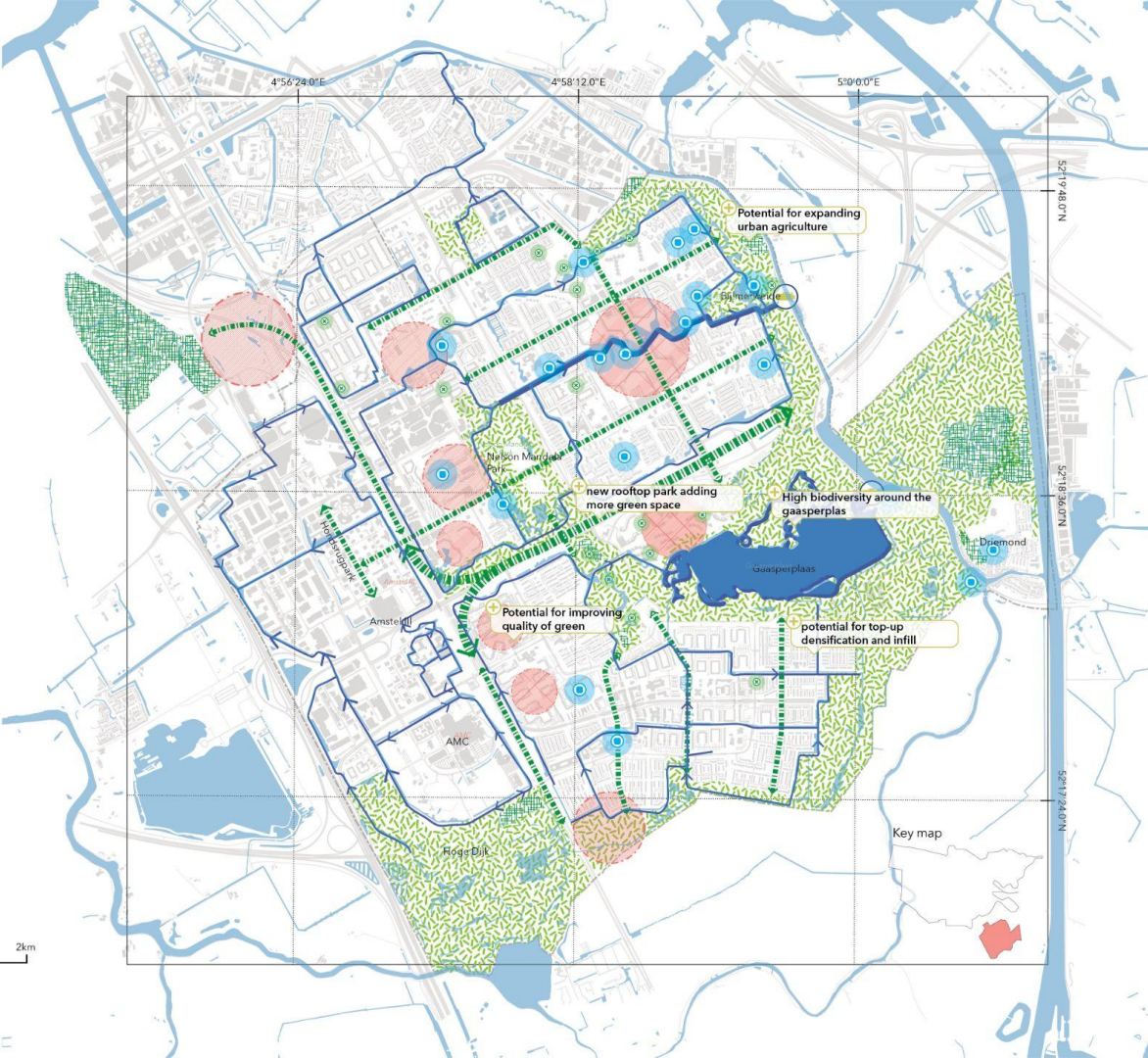


2. Analysis

2.4 Green/Blue Networks

Opportunities

Urgencies

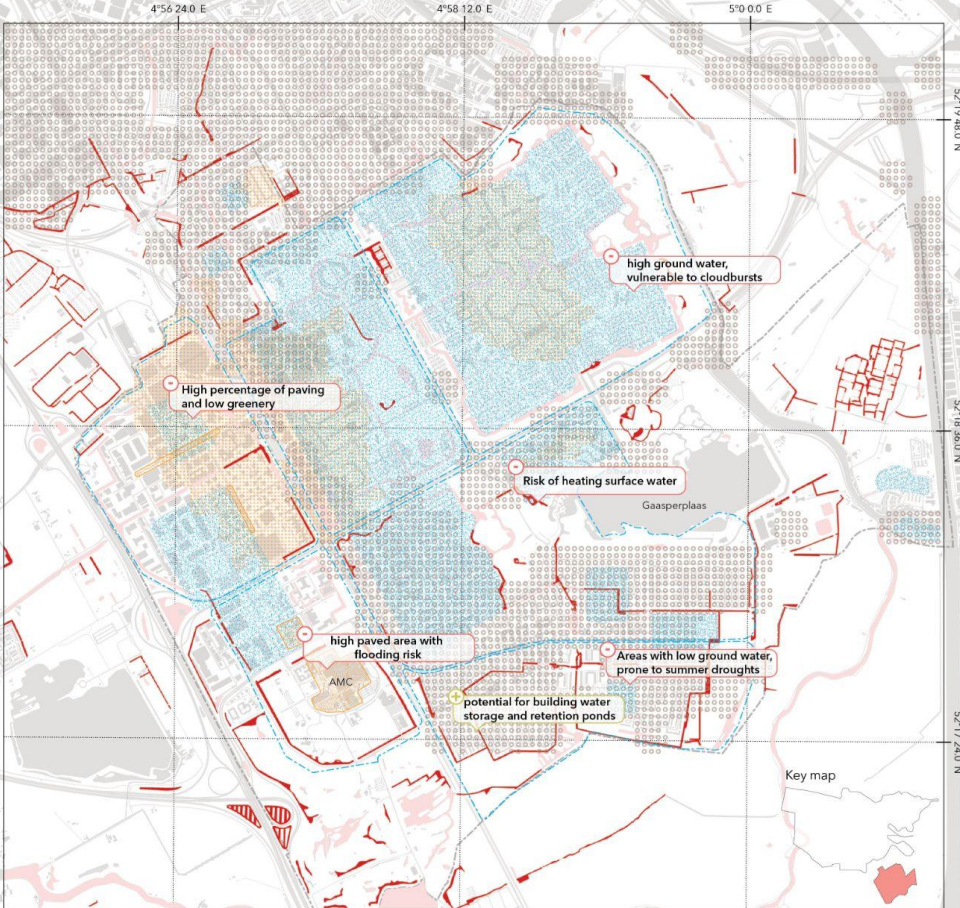


2. Analysis

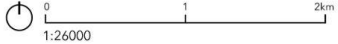
2.4 Green/Blue Networks

Opportunities

Urgencies



- High water table
- Hydrological units
- Bottlenecks in drainage
- Warming of surface water
- More than a month of tropical nights
- Low Water table

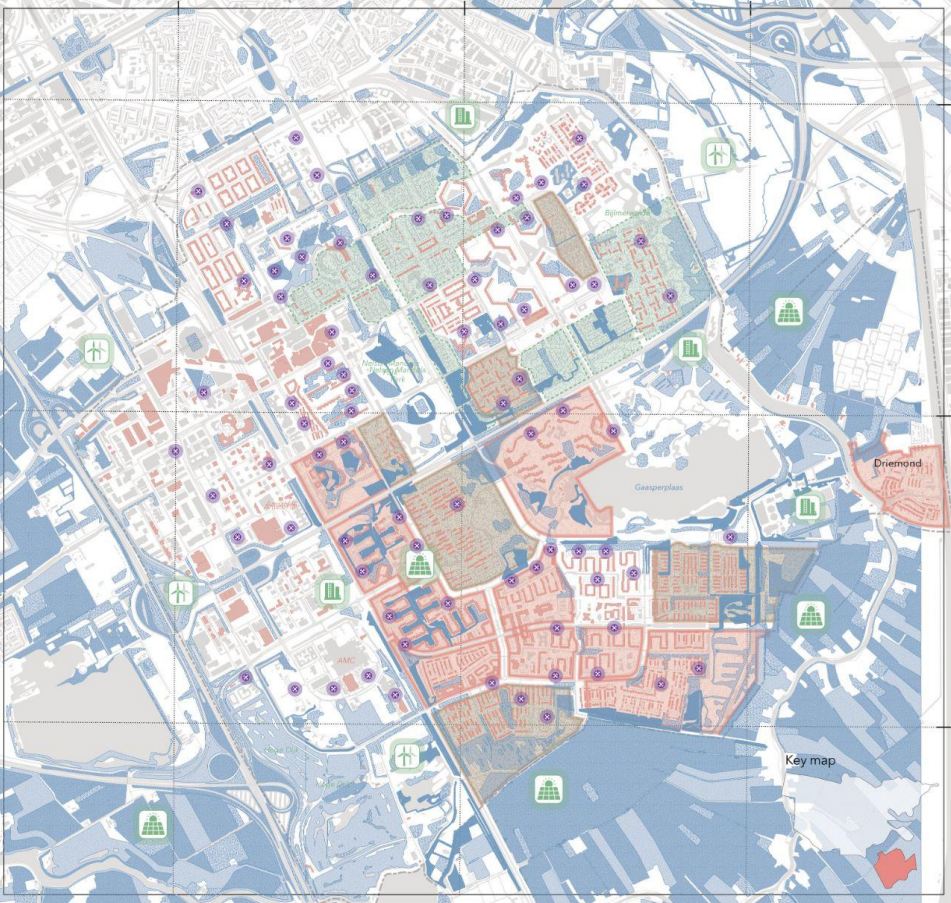


2. Analysis

2.5 Energy

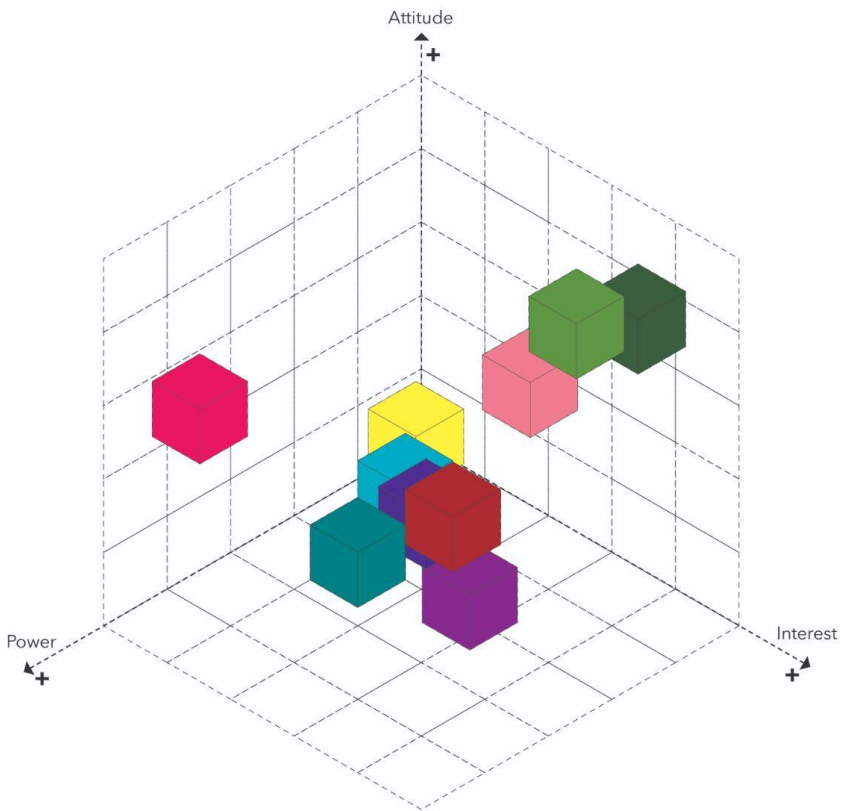
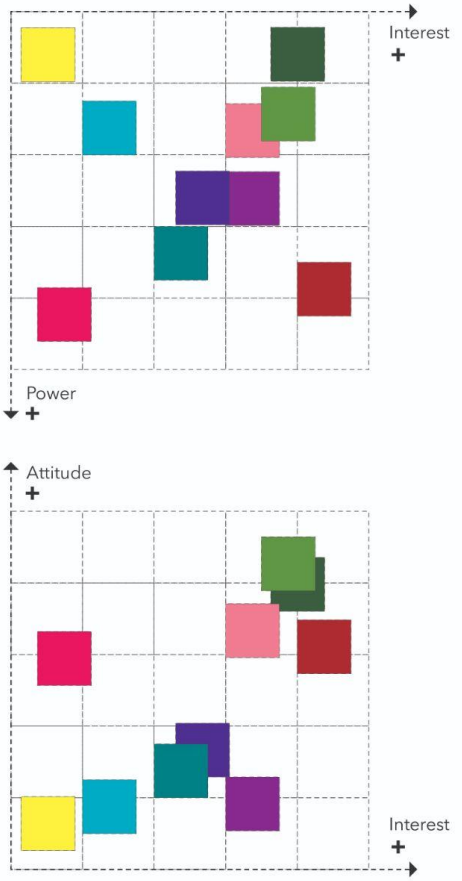
Opportunities and Urgencies

-  Solarfarms
-  Biodigesters
-  Large Wind Turbines
-  Small and medium scale energy generation
-  Large scale energy generation
-  High natural gas usage
-  High electricity usage
-  Potential to set up battery storage
-  Potential for rooftop solar energy



2. Analysis

2.6 Stakeholder Analysis



- National Govt
- Municipality
- Private infra Co
- Developers
- Community Orgs
- Regional Bodies
- Public Infra Co
- Housing Co
- Special purpose partnerships
- Unorganised Citizens

01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

Operationalising
Change

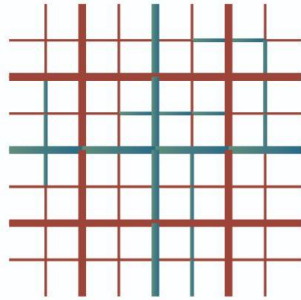
06

Design
Testing

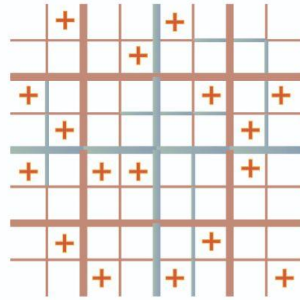
3. Strategic Framework

3.1 Spatial Framework

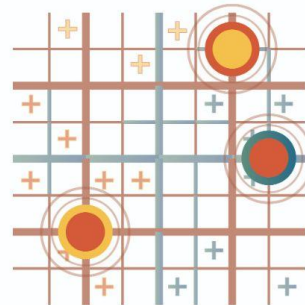
Plan



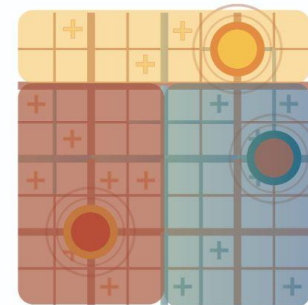
Paths/Networks



Cells/Agents



Hubs/Attractors



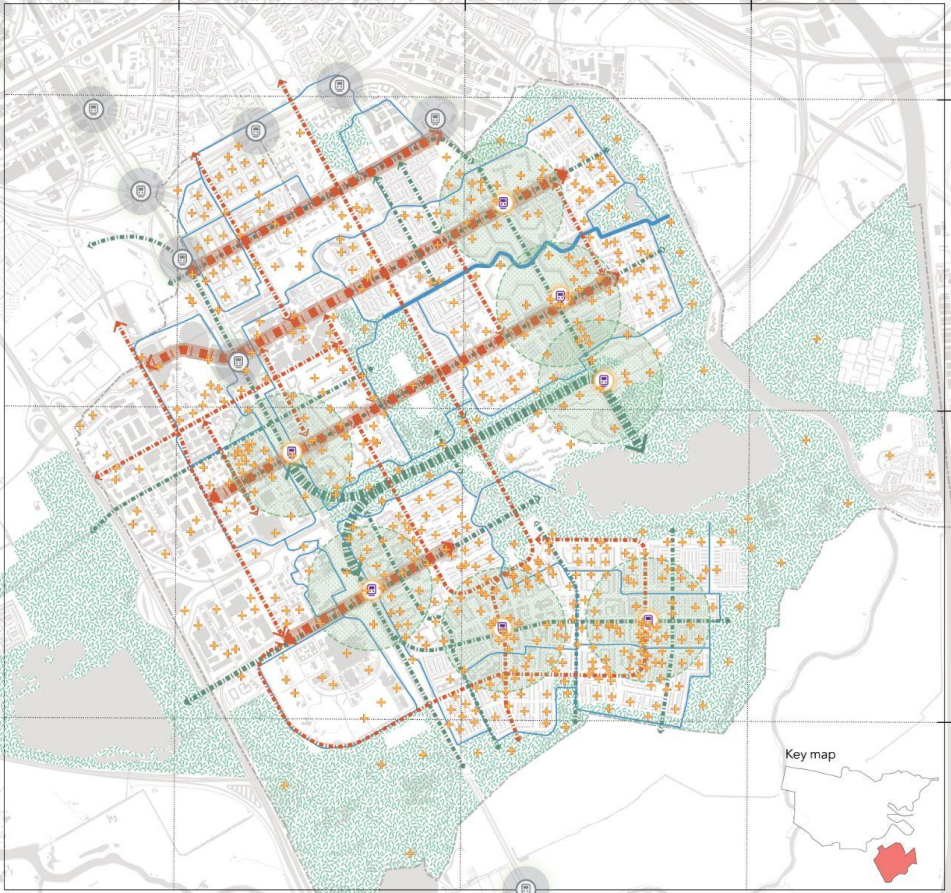
Districts/Emergence

3. Strategic Framework

3.2 Spatial Framework Plan

Plan

- Primary urban axes
- Secondary urban network
- Primary green network
- Secondary green network
- Blue Network
- Catalytic Action
- Upgrade station area
- Prioritise Station areas for Densification
- Programmatic thickening and quality improvement of green patches

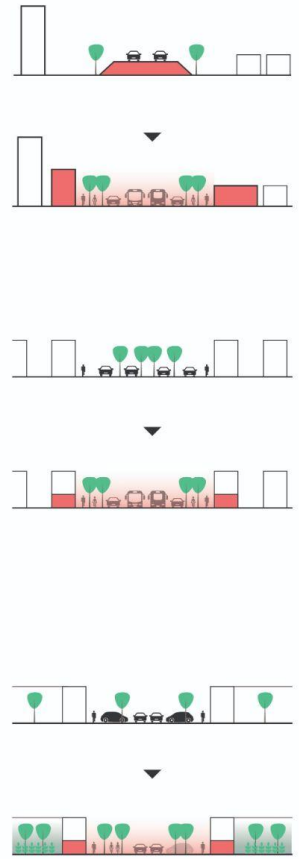
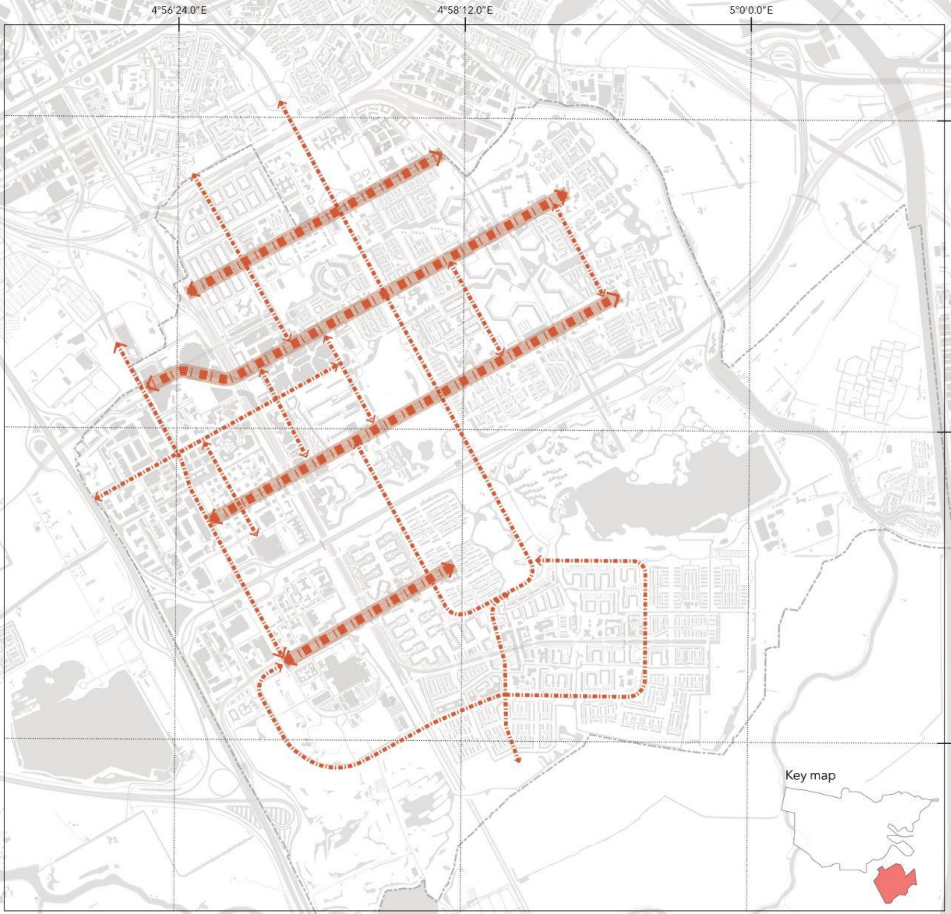
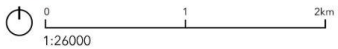


3. Strategic Framework

3.2 Spatial Framework Plan

Plan

- Primary urban axes
- Secondary urban network
- Primary green network
- Secondary green network
- Blue Network
- Catalytic Action
- Upgrade station area
- Prioritise Station areas for Densification
- Programmatic thickening and quality improvement of green patches

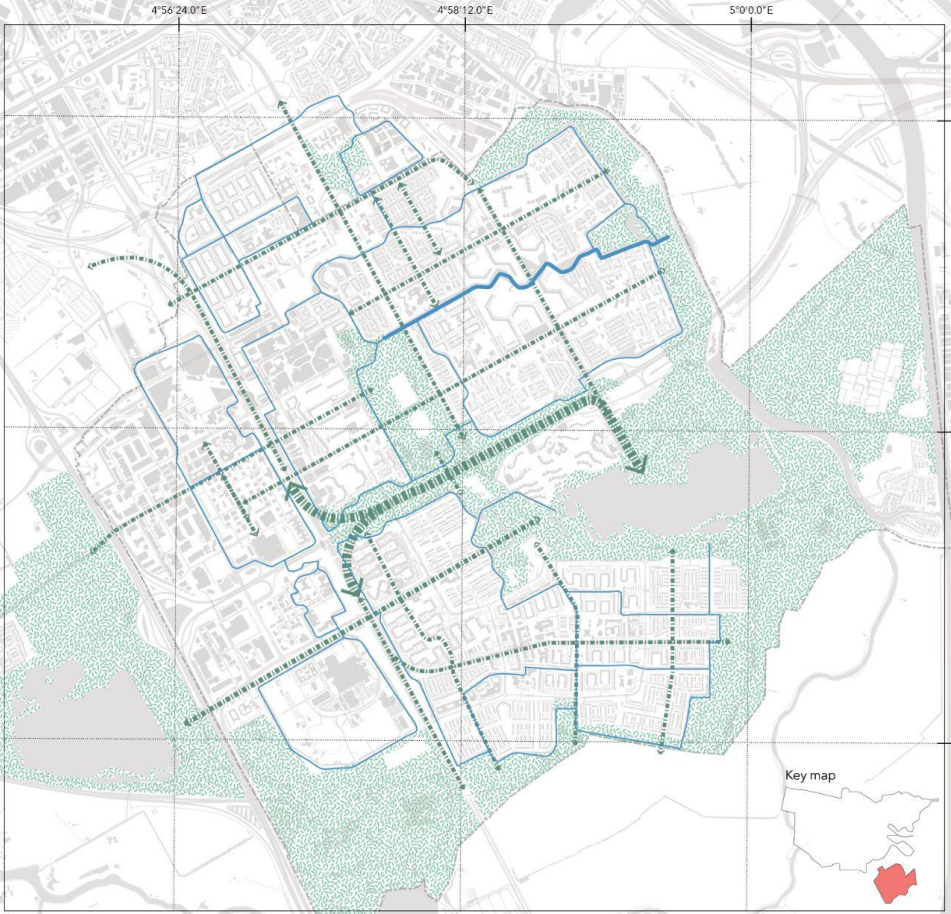
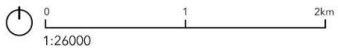


3. Strategic Framework

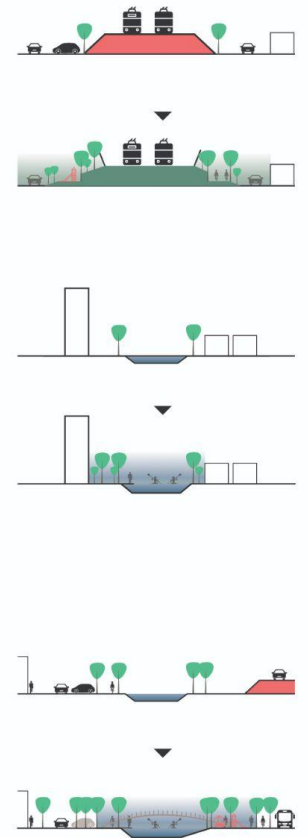
3.2 Spatial Framework Plan

Plan

- Primary urban axes
- Secondary urban network
- Primary green network
- Secondary green network
- Blue Network
- Catalytic Action
- Upgrade station area
- Prioritise Station areas for densification
- Programmatic thickening and quality improvement of green patches



Key map

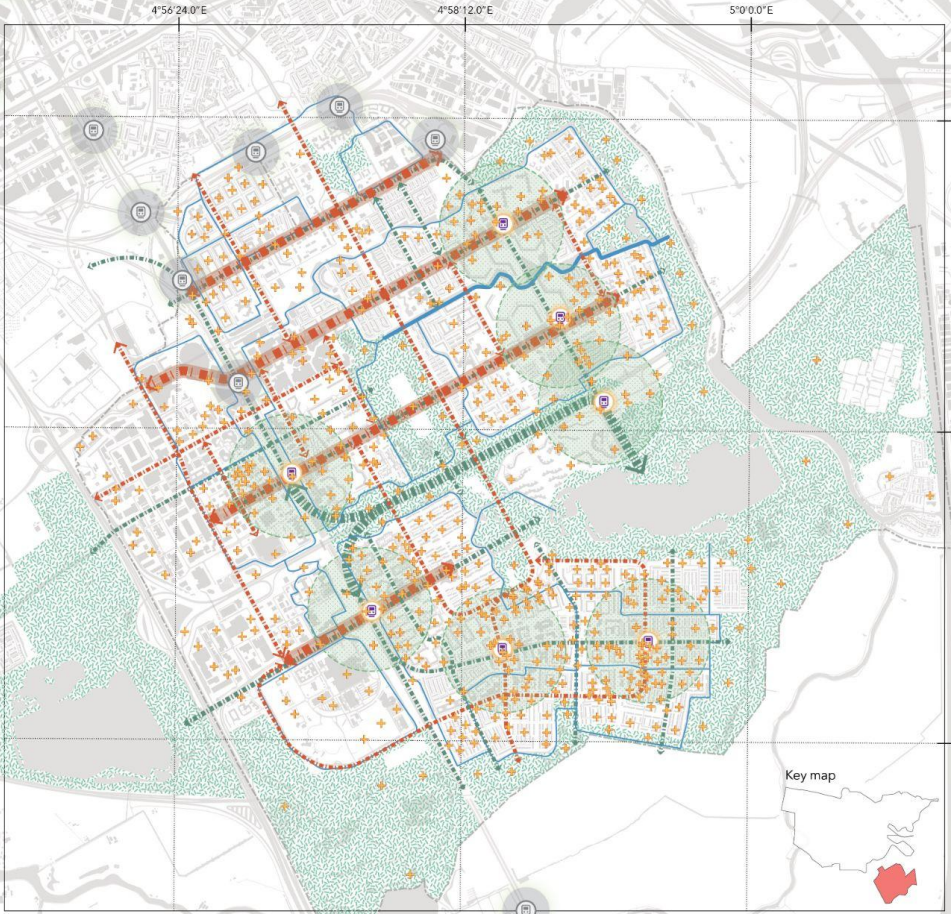
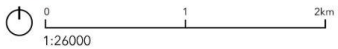


3. Strategic Framework

3.2 Spatial Framework Plan

Plan

- Primary urban axes
- Secondary urban network
- Primary green network
- Secondary green network
- Blue Network
- Catalytic Action
- Upgrade station area
- Prioritise Station areas for Densification
- Programmatic thickening and quality improvement of green patches



Key map



3. Strategic Framework

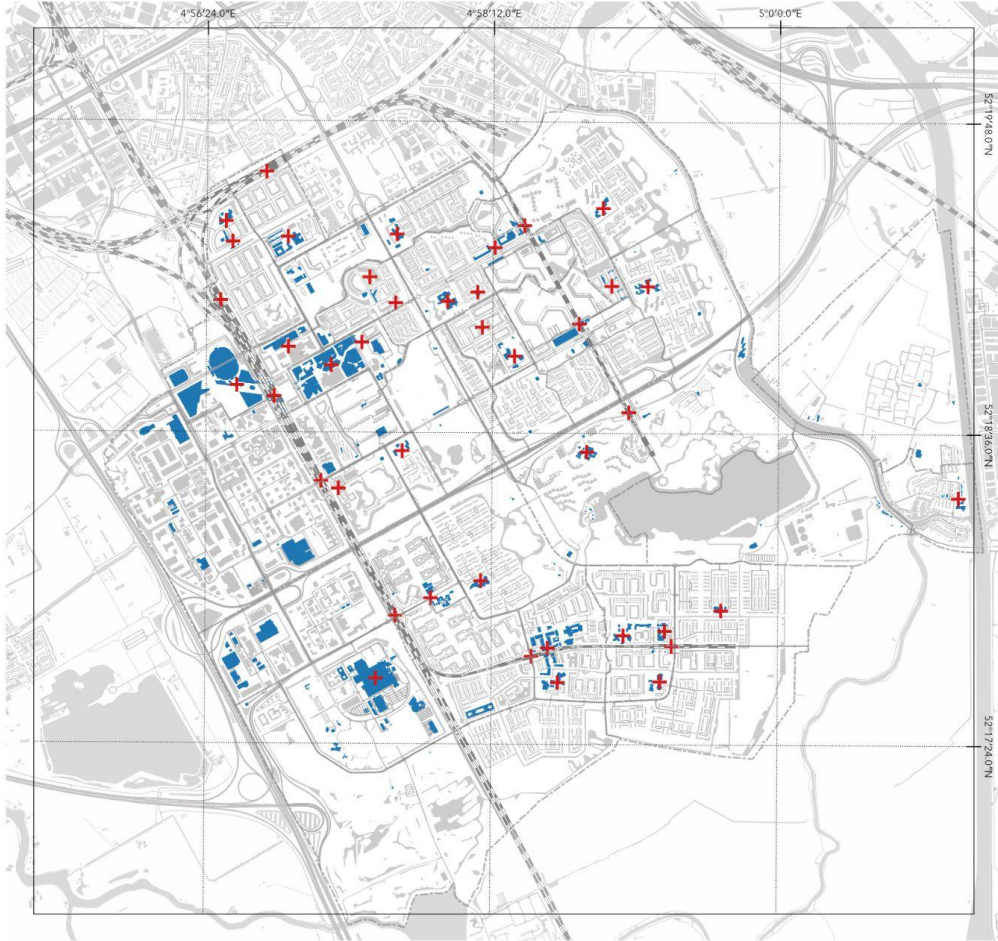
3.3 Strategic Catalysts

Centralities

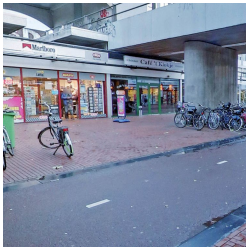
In-Between Spaces

Parking Areas

Sequencing



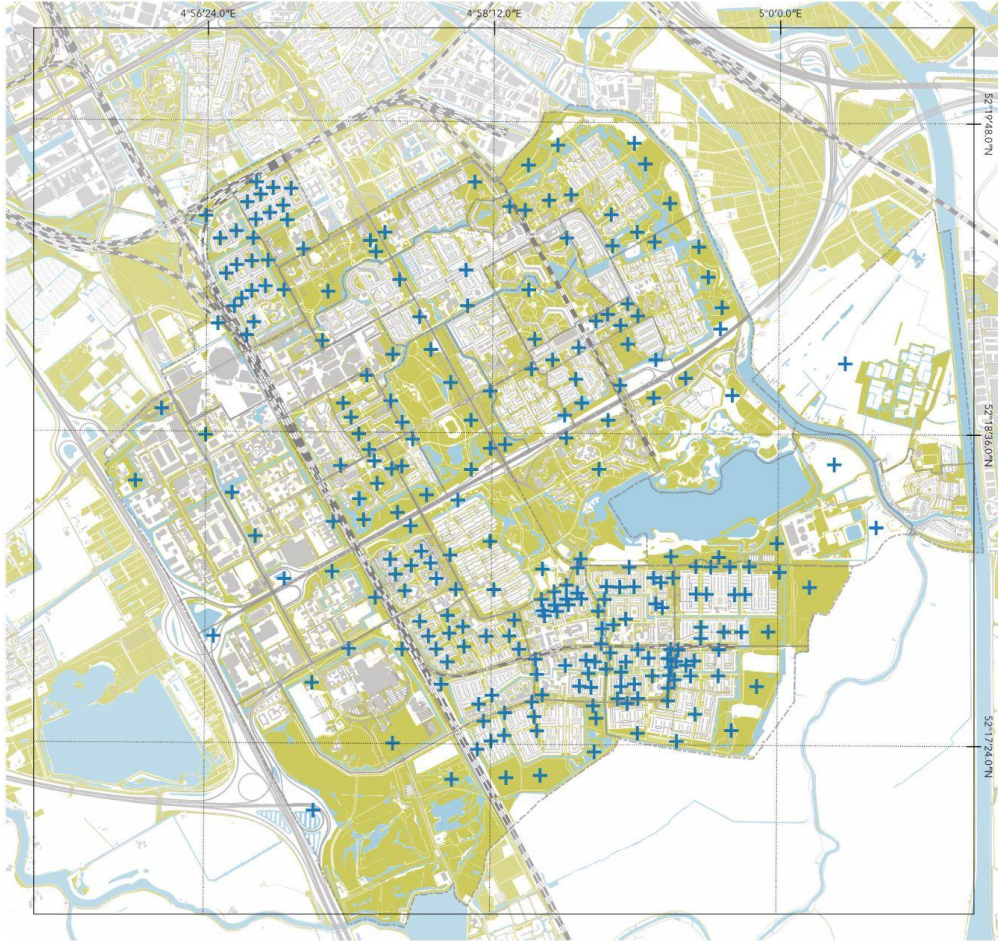
Images via Google Street View



3. Strategic Framework

3.3 Strategic Catalysts

- Centralities
- In-Between Spaces
- Parking Areas
- Sequencing



Images via Google Street View



3. Strategic Framework

3.3 Strategic Catalysts

- Centralities
- In-Between Spaces
- Parking Areas
- Sequencing



Images via Google Street View

3. Strategic Framework

3.3 Strategic Catalysts

- Centralities
- In-Between Spaces
- Parking Areas

Sequencing



01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

Operationalising
Change

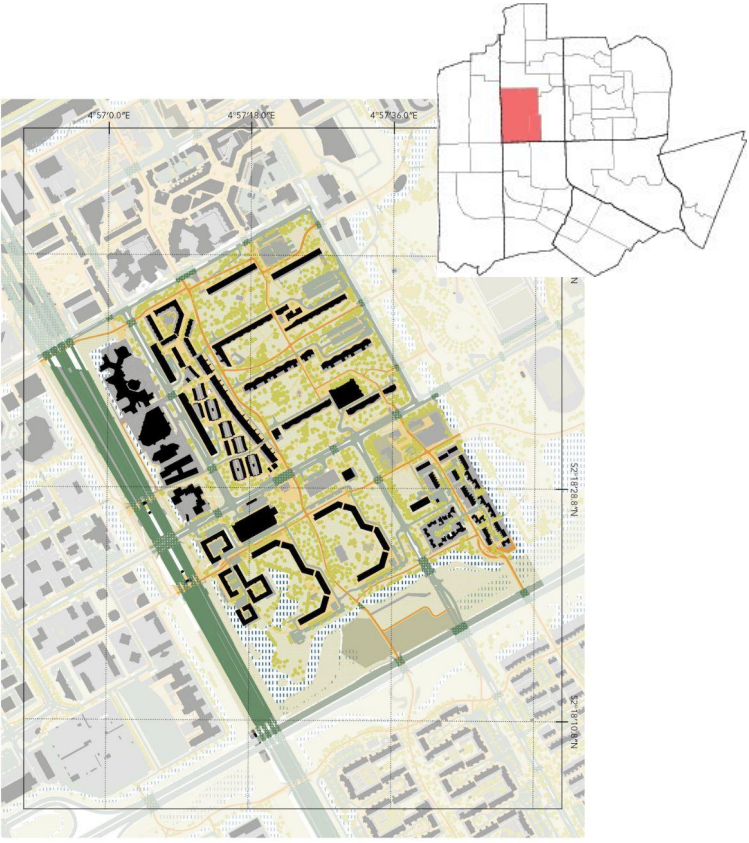
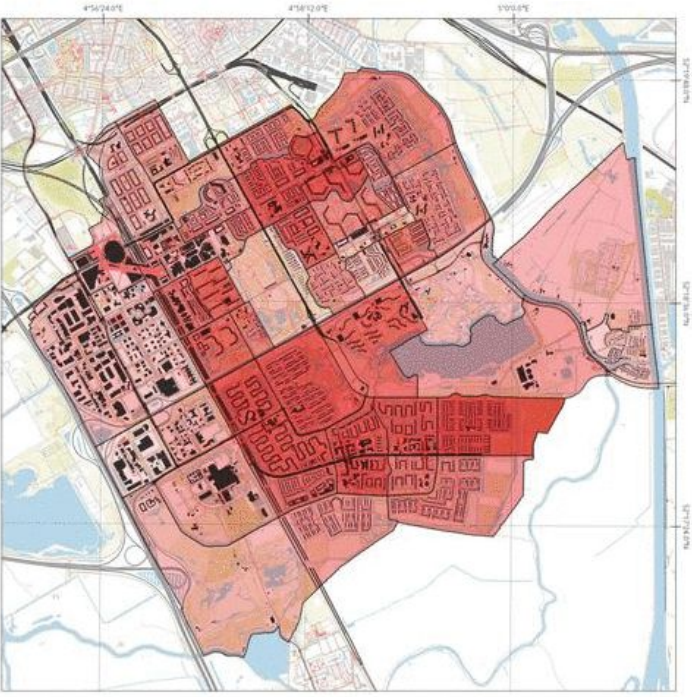
06

Design
Testing

4. Developing a Pattern Language

4.1 Neighborhood in Focus

Accessibility



4. Developing a Pattern Language

4.2 Potential Study

Research by Design



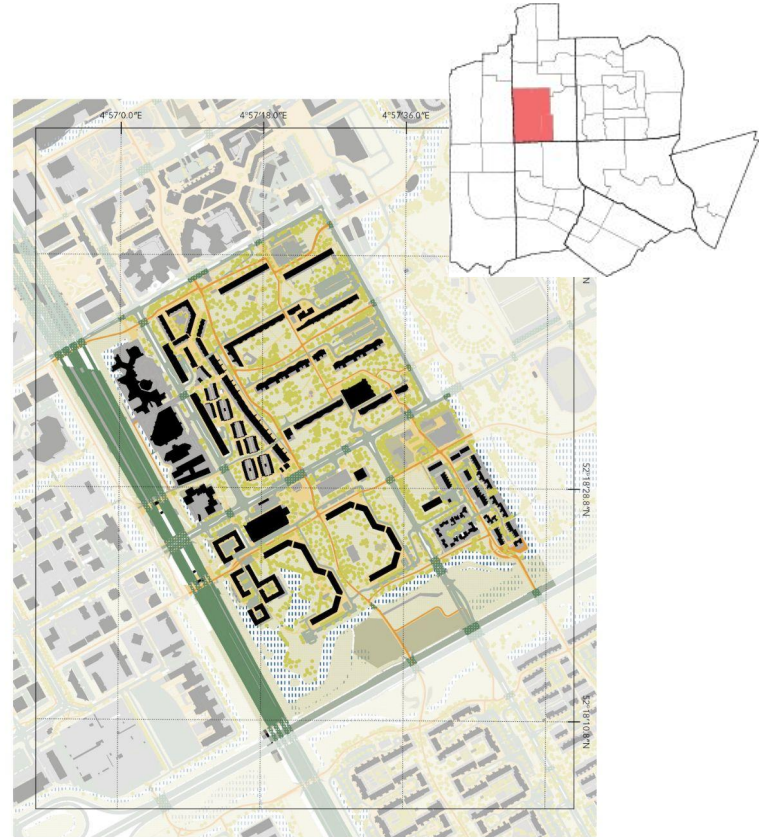
Understanding



Maximum Potential

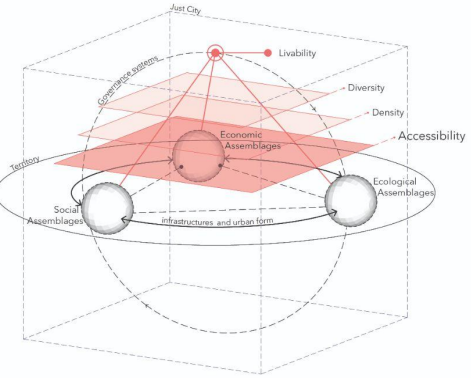


Neighbourhood

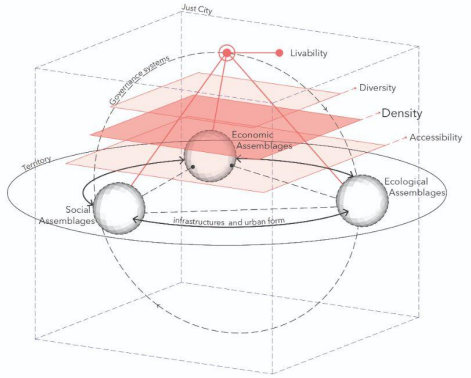


4. Developing a Pattern Language

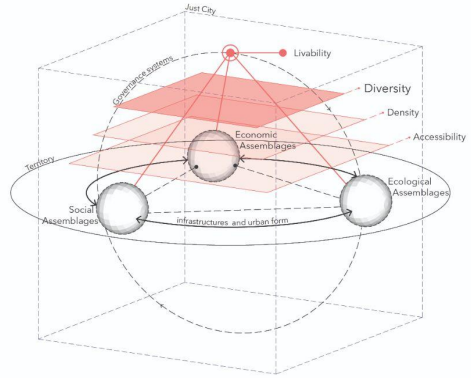
4.2 Process



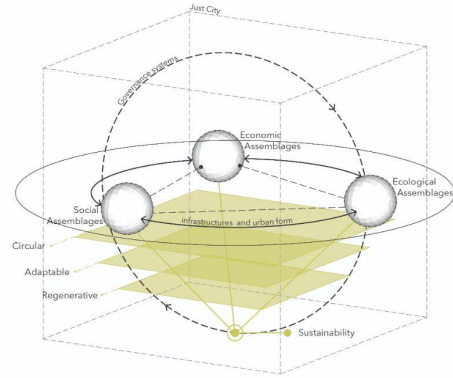
Accessibility



Density



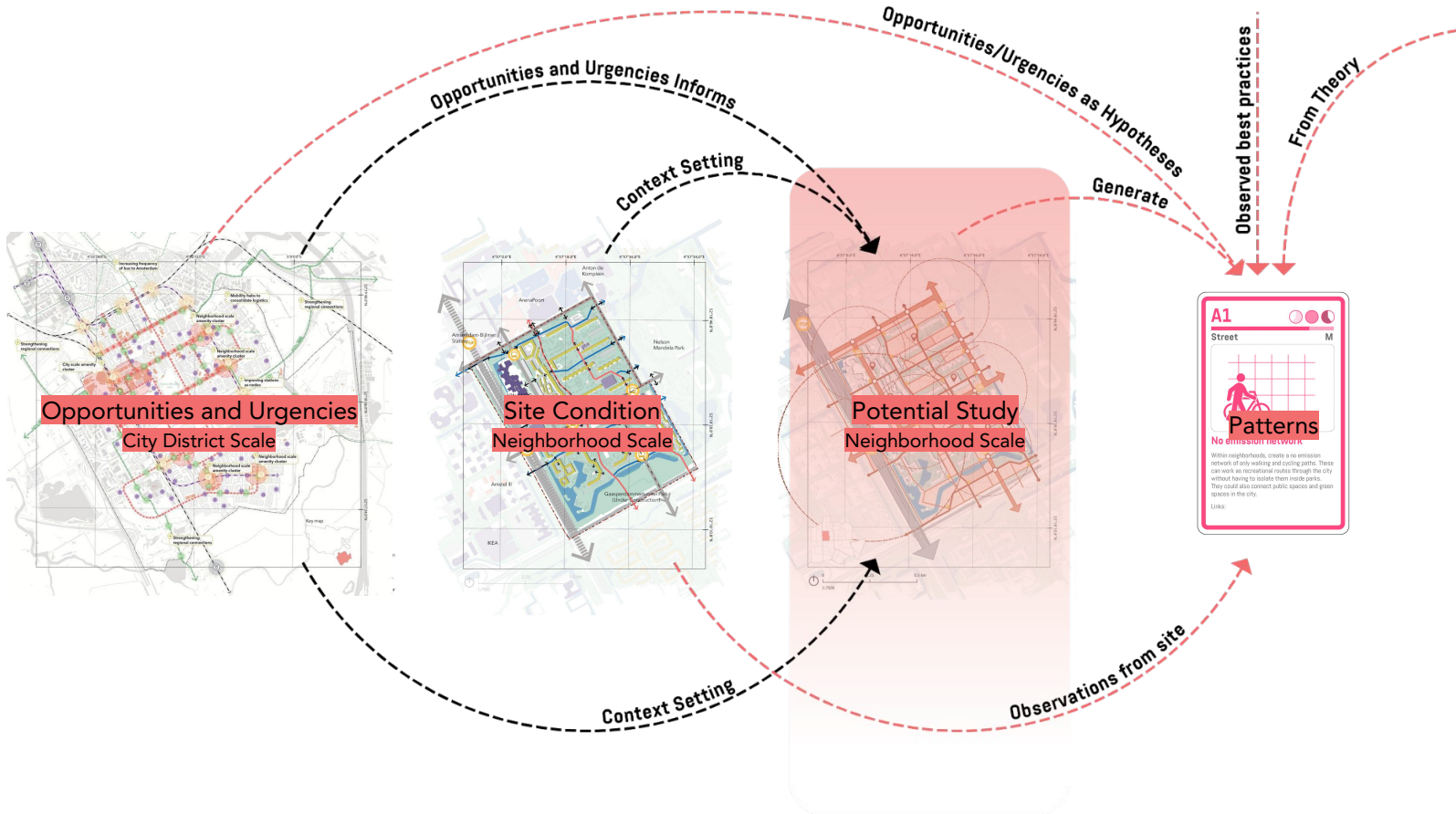
Diversity



Blue/Green
Energy
Waste
Food

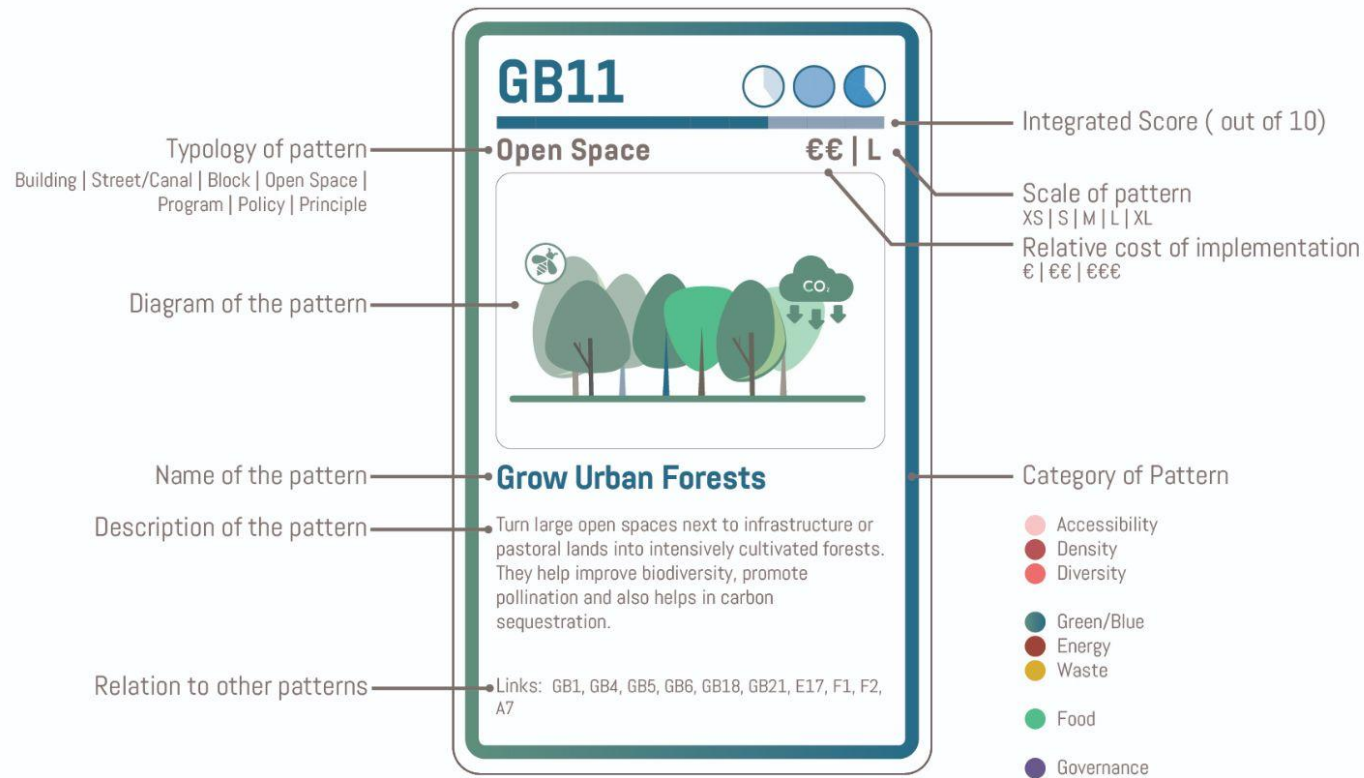
4. Developing a Pattern Language

4.2 Process



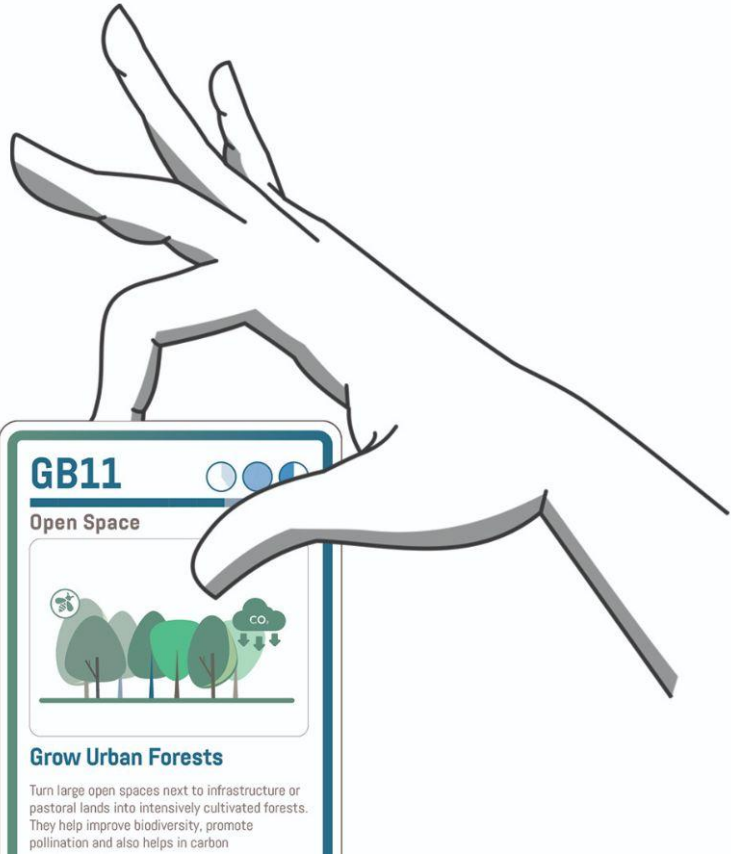
4. Developing a Pattern Language

4.2 Process



4. Developing a Pattern Language

4.2 Process



4. Developing a Pattern Language

4.2 Process

F2 ● ● ●

Principle €€ | L

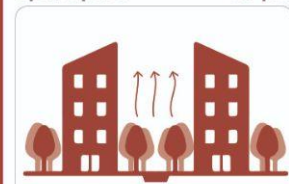


Self Sustaining Food Chain

Conceive and nurture a local and self sustaining food chain as much as possible. This means

E17 ● ● ●

Open Space €€ | M



Cooling Microclimate

Mitigate urban heat island effect, expected to be exacerbated by climate change, by improving the



GB11 ● ● ●

Open Space



Grow Urban Forests

Turn large open spaces next to infrastructure or pastoral lands into intensively cultivated forests. They help improve biodiversity, promote pollination and also helps in carbon sequestration.

Links: GB1, GB4, GB5, GB6, GB18, GB21, E17, F1, F2, A7

GB21 ● ● ●

Street M



Native Plants

Introduce native trees and plants within the urban fabric as a way to conserve and promote indigenous species which are resilient to local

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

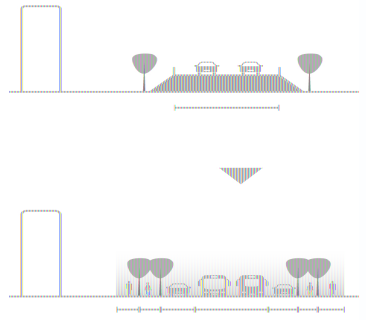
View from the street

Accessibility Patterns

Food Potential Study

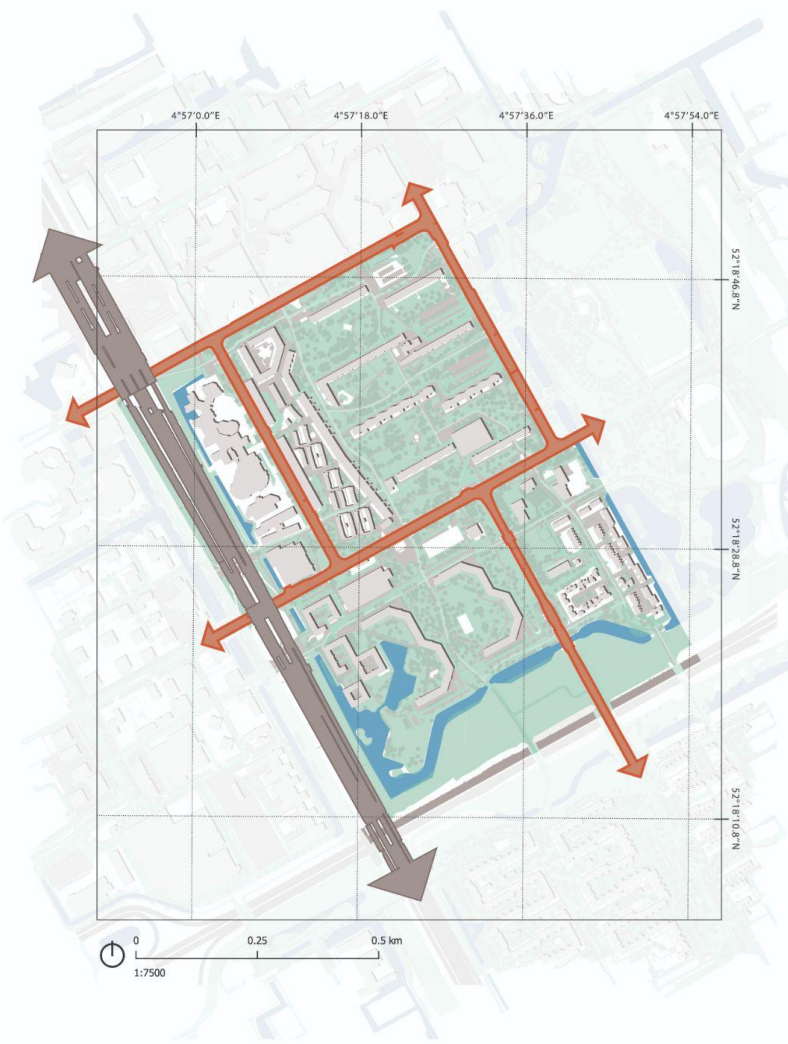
View from the street

Food Patterns



- ← Arterial roads
- ↔ Shared streets
- Local streets
- At grade junctions
- 📍 Mobility Hub

- Public space
- Cycle sharing
- Bus stops
- Metro Stops
- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

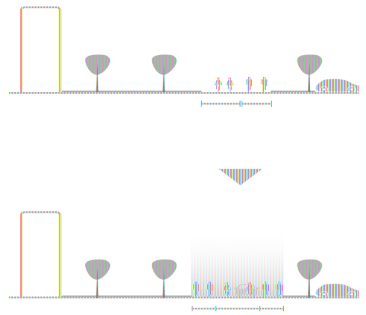
View from the street

Accessibility Patterns

Food Potential Study

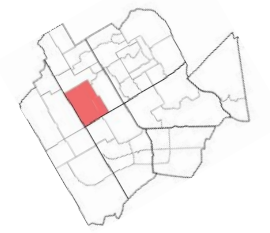
View from the street

Food Patterns



- ← Arterial roads
- ↔ Shared streets
- Local streets
- At grade junctions
- 📍 Mobility Hub

- Public space
- Cycle sharing
- Bus stops
- Metro Stops
- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

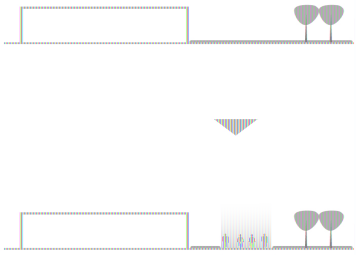
View from the street

Accessibility Patterns

Food Potential Study

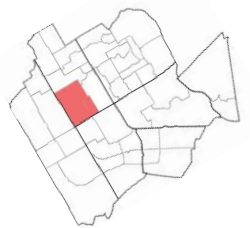
View from the street

Food Patterns



- ← Arterial roads
- ↔ Shared streets
- Local streets
- At grade junctions
- 📍 Mobility Hub

- Public space
- Cycle sharing
- Bus stops
- Metro Stops
- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

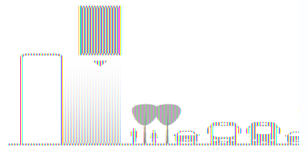
View from the street

Accessibility Patterns

Food Potential Study

View from the street

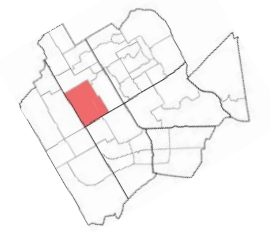
Food Patterns



- ← Arterial roads
- ↔ Shared streets
- Local streets
- At grade junctions
- 📍 Mobility Hub

- Public space
- Cycle sharing
- 🚌 Bus stops
- 🚶 Metro Stops

- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

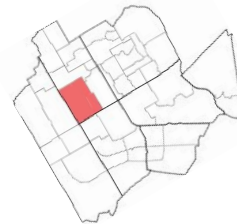
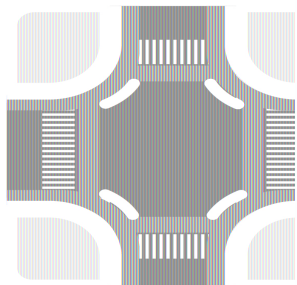
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

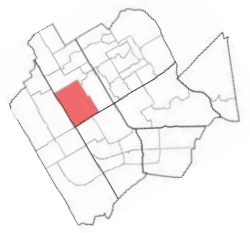
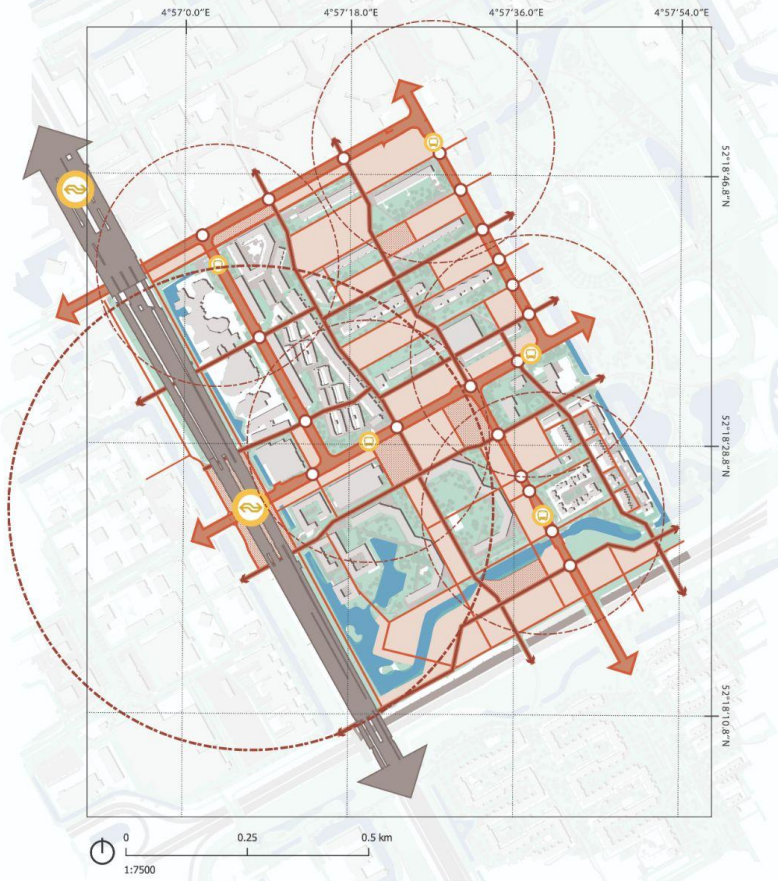
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



- ← Arterial roads
- ↔ Shared streets
- Local streets
- At grade junctions
- 📍 Mobility Hub
- Public space
- Cycle sharing
- Bus stops
- Metro Stops
- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

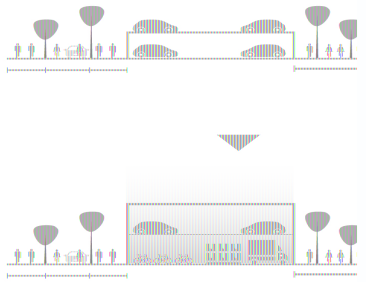
View from the street

Accessibility Patterns

Food Potential Study

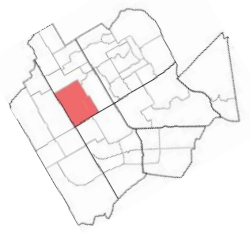
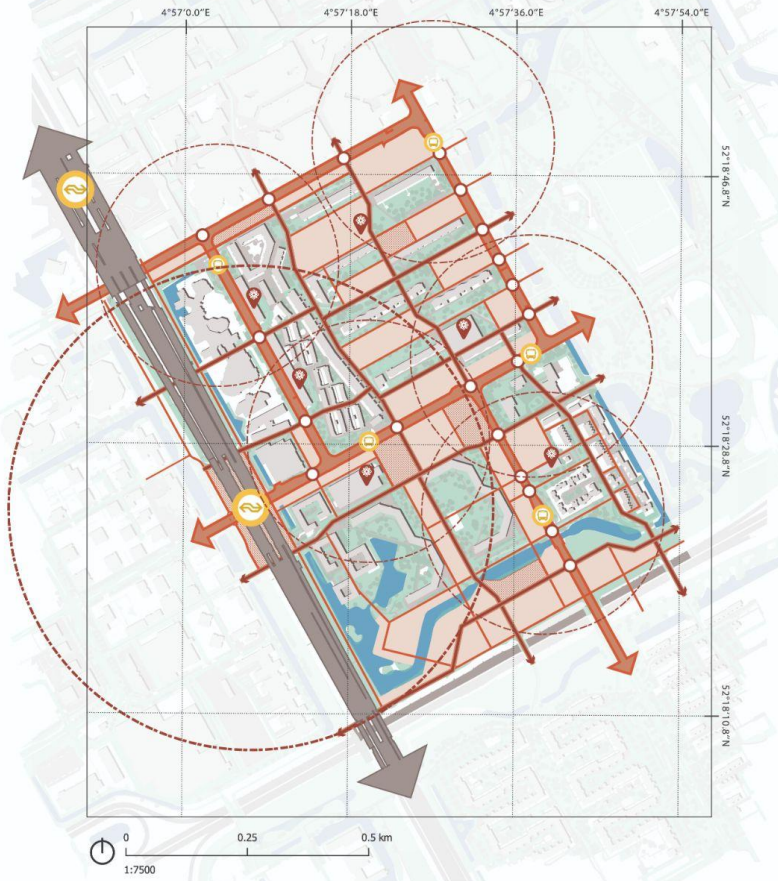
View from the street

Food Patterns



- Arterial roads
- Shared streets
- Local streets
- At grade junctions
- Mobility Hub

- Public space
- Cycle sharing
- Bus stops
- Metro Stops
- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

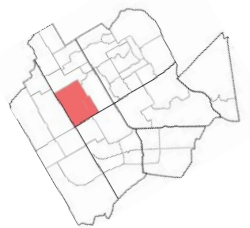
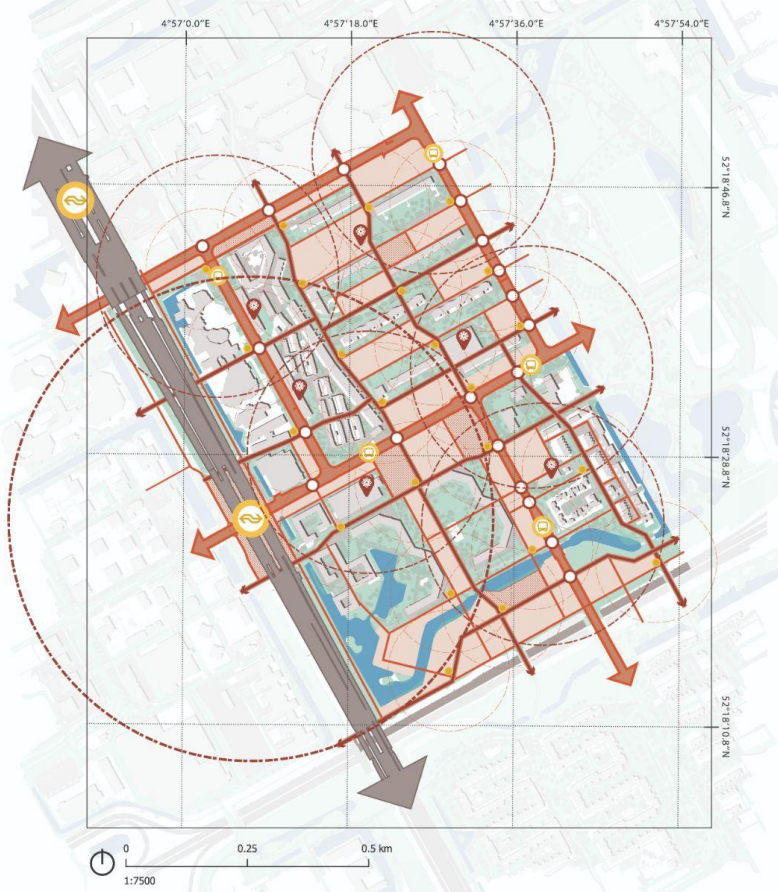
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



- ← Arterial roads
- ↔ Shared streets
- Local streets
- At grade junctions
- 📍 Mobility Hub
- Public space
- Cycle sharing
- Bus stops
- Metro Stops
- New city blocks
- 125m Radius shed
- 250m Radius shed
- 500m Radius shed

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

[View from the street](#)

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



De7 Principle M

In-between spaces to In-Space

Identify in-between spaces such as buffer areas, unutilized green zones etc., and identify them. They can be converted to either temporary or permanent city blocks based on the provision of requisite infrastructural services.

Links: Dv3, Dv4, Dv6, Dv8, Dv12, Dv14, Dv17

A35 Street M

Pocket Parks

Break the monotony of all built areas by providing pocket parks. This could be a temporary function in areas which are earmarked for development in the future. On-street parking, traffic islands and other transit infrastructure are best suited for such transformations.

Links: A7, A8, A9, A24

Dv11 Building M

Architectural quality

Invest in architectural quality. For housing as well as industrial structures (CMA, PMSL, ES, AT) invest on the representative scale.

Links: Dv3, Dv4, Dv6, Dv8, Dv9, Dv12, Dv14, Dv17

A8 Principle L

Adaptive Public Space

Provide mechanisms for public space to adapt to temporal changes. A good public space is one that is not static but dynamic, and the ability of a public space to be adaptive to the requirements of sustainable life is the city contribution to that goal.

Links: A7, A8, A28, A35, A37, A38, A39, A42, A43, A54

A9 Principle M

Affordance in Public Space

Provide mechanisms for the contribution of all stakeholders in the co-production of an shared public realm. Recognize that good public space does not produced from scratch, by experts, but they are continuously produced by citizens and stakeholders from all walks of life.

Links: A4, A28, A32, A33, A34, A41, A42, A43, A54

A21 Street S

Provide Street Furnishings

Provide street furnishings for streets, similar to furnishing a home. Street furniture used to be selected for their comfort, durability, climate resistance, aesthetic quality, and affordability. Quality street furniture engages the public, calms and makes them please of a street.

Links: A4, A28

GB21 Street M

Native Plants

Introduce native trees and plants within the urban fabric as a way to conserve and promote indigenous species which are resilient to local conditions. Community maturity of trees in the public realm are chosen for their aesthetic qualities and ease of maintenance.

Links: GB1, GB4, GB5, GB6, GB13

A28 Open Space/Street XL

Public Space Network

Connect public spaces into a system of inter-connected spaces. Streets, squares, parks and the public areas of buildings are part of this network. Make these spaces walkable and pedestrian-friendly, with attractive destinations and uses. It improves social life and security at frequent intervals.

Links: A7, A9

A5 Principle S

Eyes on the street

Direct activity on both sides of a street while ensuring connectivity of activities with each other and rest of the street. Avoid blank walls, parking lots or other unattractive structures facing the street. Where streets are broad or otherwise wide, use it to improve social life and security.

Links: A4, A8, A35, A38, A39, A42, A43, A54

A18 Building/Street M

Porosity through Blocks

Provide pedestrian and cycling pathways across large blocks to reduce that porosity without affecting the larger transport structure and also prevent large blocks from acting as hard edges.

Links: A4, A18

Dv6 Street M

Areas of Multiple Rhythms

Promote areas of different rhythms within a neighborhood. When introducing functional mix in a neighborhood, it is important to ensure complete functionality and to register through increasing velocities to avoid conflict and maintain balance over the long term.

Links: Dv3, Dv4, Dv6, Dv8, Dv12, Dv17, Dv18, Dv19

A4 Principle S

Streets to Stay

Design streets as places of stay and not just corridors of traffic. Streets are where transportation infrastructure and are the living rooms of a city. Good streets will enable citizens to linger and engage with public life on the street.

Links: A4, A8, A7, A28, A35, A37, A38, A39, A42, A43, A54

Dv24 Building M

Streets in Sections

Design streets in sections to have similar or complementary functions as other sides of the street. This ensures optimum utilization of street space, providing synergistic effects while increasing issues of noise, privacy and parking in the street front.

Links: Dv7, Dv8, Dv12, Dv21, Dv23

A3 Principle L

Provide for Multimodal Options

Integrate streets and transport modes to promote multimodal options. This can help in the mobility transition by providing the requisite infrastructure for different modes of transportation including walking, cycling and PE.

Links: A1, A4, A28, A27

F12 Street e | S

Food Outlets + Kiosks

Make space along high-throughput for food outlets in the sidewalk when there is space to provide food options for people on the move. This also creates opportunity for small-scale entrepreneurs to reach a larger customer base with low capital investment.

Links: F2, F4, F11

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study


View from the street


Accessibility Patterns

Food Potential Study

View from the street

Food Patterns


A1  **Principle** XL

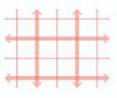


Multi-Nuclei Model

Create multiple city-level centralities within the city. This prevents over-crowding and one-way daily urban cycles focused in one centre and enables sustainable, distributed development across the city.

Links: A2, A3


A2  **Principle** XL

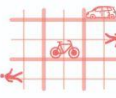


Street Hierarchy

When laying out street grids, use a rough spacing of 400m or less for arterial streets. Within these ~400m "superblocks", provide for shorter, interrupted, lane-like streets that can accommodate motor vehicles, but prohibit pedestrians and cyclists.

Links: A1, A3, A11, A12, A13, A14


A3  **Principle** L




Provide for Multimodal Options

Redesign streets and transit modes to promote multimodal options. This can help in the mobility transition by providing the requisite infrastructure for different modes of transportation including walking, cycling and PT.

Links: A1, A2, A26, A27


A4  **Principle** S




Streets to Stay

Design streets as places of stay and not just conduits of traffic. Streets are more than transportation infrastructure and are the living rooms of a city. Good streets will enable citizens to linger and engage with public life on the street.

Links: A5, A6, A7, A16, A20, A21, A22, A23


A5  **Principle** S




Eyes on the street

Orient activity on both sides of a street while ensuring compatibility of activities with each other and rest of the street. Avoid blank walls, parking lots or other unvariable structures facing the streets. When streets are focus of attention and use, it improves social life and security.

Links: A4, A6, A16, A19, A20, A21, A22, A23


A6  **Principle** S




Threshold Spaces

Create architectural features that blend private and public spaces, without stark divides such as arcades, courtyards and galleries. Skillful use of glass windows along the street edge can blur the distinction between exterior and interior, while keeping spaces distinct.

Links: A4, A6, A16, A19, A20, A21, A22, A23


A7  **Principle** XL




Hierarchy of Public Spaces

Structure public spaces in a hierarchy based on their size, context and position in the city network. Large parks and important strategic spaces are metropolitan scale public spaces, while school yards and amenity clusters are neighborhood scale public spaces.

Links: A8, A1, A2, A25, A30, A31, A32, A33, A34

A8  **Principle** L



Adaptive Public Space

Provide mechanisms for public spaces to adapt to temporal changes. A good public space is one that is not static but dynamic, and the ability of a public space to be adaptive to the requirements of sustainable life in the city contributes to that goal.

Links: A7, A8, A26, A29, A30, A31, A32, A33, A34

A9  **Principle** M



Affordance in Public Space

Provide mechanisms for the contribution of all stakeholders in the co-production of a shared public realm. Recognize that good public places are not produced from scratch, by experts, but they are continuously co-produced by citizens and stakeholders from all walks of life.

Links: A7, A8, A26, A29, A30, A31, A32, A33, A34

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

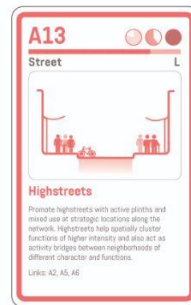
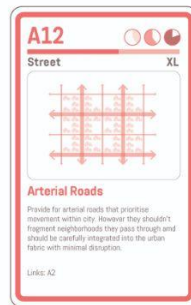
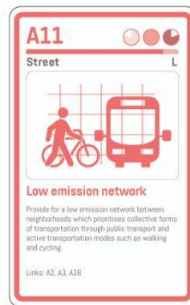
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns

A10 Street M




No emission network

Within neighborhoods, create a no emission network of only walking and cycling paths. These can work as recreational routes through the city without having to isolate them inside parks. They could also connect public spaces and green spaces in the city.

Links: A2, A3, A15, A34, A36, A37, A33

A11 Street L




Low emission network

Provide for a low emission network between neighborhoods which prioritizes collective forms of transportation through public transport and active transportation modes such as walking and cycling.

Links: A2, A5, A36

A12 Street XL




Arterial Roads

Provide for arterial roads that prioritize movement within city. However they shouldn't fragment neighborhoods they pass through and should be carefully integrated into the urban fabric with minimal disruption.

Links: A2

A13 Street L




Highstreets

Promote highstreets with active pleaths and mixed use at strategic locations along the network. Highstreets help spatially cluster functions of higher intensity and also act as activity bridges between neighborhoods of different character and functions.

Links: A2, A5, A6

A14 Street M




Woonorf

Design streets as woonerf wherever possible. Woonerf = Living street as a shared street concept where pedestrians, cyclists and cars share the same street space, with traffic calming measures. Here the street is not just a conduit for movement but also for stay.

Links: A2, A3, A5

A15 Building/Street M




Landmarks as Wayfinding

Design streets with periodic visual interruptions by introducing public buildings, natural features, or other monuments along their axes. Create a pause point around these to reflect public squares, shopping streets, or landmarks at them. Make these pause points visually interesting, distinctive and reflective of the activity taking place there.

Links: A2, A6

A16 Street M

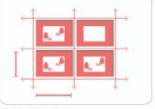


Walkable networks

Provide the urban fabric with a pervasive walkable network. Since most first and last kilometers of trips are by walk, it is important to keep this quality embedded in the street network. Safe and comfortable footpaths should be an integral part of the street network.

Links: A2, A3, A4, A5, A6, A8, A18, A19, A23

A17 Block M




Small Blocks

Create small blocks. Small blocks improve walkability of the network and provide people with choice when moving about. Lay out blocks so that their shortest dimensions are roughly 70-90 metres and their longest dimensions are <150 metres to maximise walkability.

Links: A5, A8, A36

A18 Building/Street M



Porosity through Blocks

Provide pedestrian and cycling pathways across large blocks to increase their porosity without affecting the larger transport structure and also prevent large blocks from acting as hard edges.

Links: A5, A6, A16

A19 Street S



Traffic Calming

Design traffic calming measures into shared streets and woonerfs where people walking and cycling share the same space as automobiles. Traffic calming devices such as chicanes and speedbumps, help slow down fast vehicles and be conscious of their speed.

Links: A4, A35

A20 Building/Street M



Transparent Ground Floors

Make ground floors of buildings along important streets transparent materially and functionally through the use of glass, and other perforations along with active functions such as cafes, shops and more.

Links: A4, A5, A6

A21 Street S




Provide Street Furnishings

Provide street furnishings for streets, similar to furnishing a home. Street furniture need to be selected for their comfort, durability, climate resistance, aesthetic quality, and affordance. Quality street furniture improves the public realm and make them places of stay.

Links: A4, A35

A22 Street S



Wide Enough to Walk and Talk

Design sidewalks and cyclepaths to be wide enough for two or more people to walk and talk alongside. This critical dimension of sidewalks is required to make them social spaces and not just functional infrastructure.

Links: A3, A4, A5, A6

A23 Street L



Trees along Streets

Design streets with trees along their edges or at the medians. Introduce diversity, but prefer native species. Contextual choice of trees is based on the activity along building frontages. Trees along the street improves its quality and make them pleasant to move through.

Links: A2, A3, A4, A5, A36

A24 Street S



Adaptive On-Street Parking

Parking areas can house temporal functions such as curbside dining, pocket parks or seating spaces. Modernist design ideals has created out of on-street parking where use could be potentially intensified beyond parking based on contextual functions.

Links: A7, A8, A35

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns

A10 Street M




No emission network

Within neighborhoods, create a no emission network of only walking and cycling paths. These can work as recreational routes through the city without having to isolate them inside parks. They could also connect public spaces and green spaces in the city.

Links: A2, A3, A15, A14, A16, A17, A13

A11 Street L

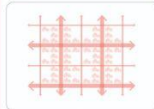


Low emission network

Provide for a low emission network between neighborhoods which prioritizes collective forms of transportation through public transport and active transportation modes such as walking and cycling.

Links: A2, A5, A16

A12 Street XL




Arterial Roads

Provide for arterial roads that prioritize movement within city. However they shouldn't fragment neighborhoods they pass through and should be carefully integrated into the urban fabric with minimal disruption.

Links: A2

A13 Street L



Highstreets

Promote highstreets with active plinths and mixed use at strategic locations along the network. Highstreets may spatially cluster functions of higher intensity and also act as active bridges between neighborhoods of different character and functions.

Links: A2, A5, A6

A14 Street M




Woonerf

Design streets as woonerfs wherever possible. Woonerf = Living street is a shared street concept where pedestrians, cyclists and cars share the same street space, with traffic calming devices where the street is not just a conduit for movement but also for stay.

Links: A2, A3, A5

A15 Building/Street M




Landmarks as Wayfinding

Design streets as periodic visual interruptions by introducing public buildings, natural features, or other monuments along their axis. Create a space point around them to foster public squares, seating areas, or landscaping at them. Make these points visually accessible from the street to not just a conduit for movement but also for stay.

Links: A2, A6

A16 Street M

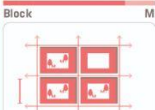


Walkable networks

Provide the urban fabric with a pervasive walkable network. Since most first and last kilometers of trips are by walk, it is important to keep this quality embedded in the street network. Safe and comfortable footpaths should be an integral part of the street network.

Links: A2, A3, A4, A6, A8, A9, A18, A19, A23

A17 Block M




Small Blocks

Create small blocks. Small blocks improve walkability of the network and provide people with choice when moving about. Lay out blocks so that their shortest dimensions are roughly 70-90 metres and their longest dimensions are <150 metres to maximise walkability.

Links: A4, A5, A16

A18 Building/Street M

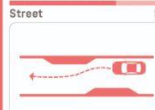


Porosity through Blocks

Provide pedestrian and cycling pathways across large blocks to increase their porosity without affecting the larger transport structure and also prevent large blocks from being hard edges.

Links: A5, A6, A16

A19 Street S



Traffic Calming

Design traffic calming measures into shared streets and especially where people walking and cycling share the same space as automobiles. Traffic calming devices such as chicanes and speedbumps, help slow down fast vehicles and be conscious of their speed.

Links: A4, A19

A20 Building/Street M



Transparent Ground Floors

Make ground floors of buildings along important streets transparent materially and functionally through the use of glass, and other transparentations along with active functions such as cafes, shops and more.

Links: A4, A5, A6

A21 Street S




Provide Street Furnishings

Provide street furnishings for streets, similar to furnishing a home. Street furniture need to be selected for their comfort, durability, climate resistance, aesthetic quality, and affordances. Quality street furniture improves the public realm and make them places of stay.

Links: A4, A19

A22 Street S



Wide Enough to Walk and Talk

Design sidewalks and cyclepaths to be wide enough for two or more people to walk and talk alongside. This critical dimension of sidewalks is required to make them social spaces and not just functional infrastructures.

Links: A3, A4, A5, A6

A23 Street L



Trees along Streets

Design streets with trees along their edges or at the median. Introduce diversity, but prefer native species. Contextual choice of trees is based on the activity along building footprints. Trees along the street improves its quality and make them pleasant to move through.

Links: A2, A3, A4, A6, A16

A24 Street S



Adaptive On-Street Parking

Parking areas can house temporary functions such as curbside dining, pocket parks or seating spaces. Modernist design ideas that created lot of on-street parking whose uses could be potentially interchanged beyond parking based on contextual functions.

Links: A7, A8, A16

A25 Building M




Neighborhood Mobility Hub

Consolidate parking at the neighborhood scale in off-street parking garages which could double as legitimate tobacconists as well. This helps free up street spaces dedicated for other functions such as parking in low active functions along street.

Links: A3, A26, A27, A12

A26 Building L



Inter-modal Transit Node

Facilitate inter-modality in transit nodes where citizens can choose to switch their mode of transit such as walking, cycling, riding, car, bus, metro or train. Public transit stops such as metros, train stations and bus stops are ideal places to build inter-modality.

Links: A3, A12, A25, A27

A27 Canals L



Canals for Transportation

Upgrade canals within the city to be used for transportation and recreational use. Canals are everywhere in the low lying Dutch lands. Though drinking and dropping of existing canals currently used only for drainage purposes, their potential can be expanded.

Links: A3

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study


View from the street


Accessibility Patterns

Food Potential Study

View from the street

Food Patterns

A28  **Open Space/Street** XL



Public Space Network
Connect public spaces into a system of inter-connected spaces. Streets, squares, parks, and the public areas of buildings are part of this network. Make these spaces walkable and pedestrian-friendly, with attractive destinations at frequent intervals.
Links: A7, A8

A29  **Open Space** L



Neighborhood Square
Create neighborhood squares as a lively public space for gathering, recreation, markets, and community events, potentially adjacent to neighborhood commercial activities. These are local centralities in the street network. Design them attractively as places of stay.
Links: A7, A8, A9

A30  **Open Space** L




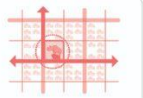
Neighborhood Park
Create neighborhood parks as quiet oases for citizens, with a bit of greenery and natural features. Ensure one of these within ~200 meters of every dwelling. They can also feature recreational activities including play structures for children.
Links: A7, A8, A9

A31  **Building/Street** L




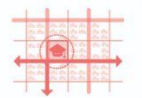
Cultural nodes as public spaces
Design cultural nodes such as religious institutions, museums etc., as vibrant public spaces integrated in the public space network. This ensures citizens to experience the city and its diversity in totality and avoids polarisation.
Links: A7, A8, A9

A32  **Open Space** L



Art in Public Space
Add art and enable artists to artistically express themselves in public spaces. Art has the ability to start conversations and capture public sentiment and a good public space can be a conduit for that exchange, while benefiting from the buzz.
Links: A7, A8, A9

A33  **Building** L





Schools as public spaces
Weave school campuses into the urban fabric and don't create inactive edges around them with walls and parking spaces. Playspaces of the school can be shared facilities which are active beyond the school day.
Links: A7, A8

A34  **Building/Open Space** L



Markets as public spaces
Weave markets and other shopping areas into the urban fabric and don't isolate them into large format shopping malls. Distributed markets that organically interact with the street network are more lively and adaptive to change.
Links: A7, A8, A9

A35  **Street** M



Pocket Parks
Break the intensity of built areas by providing pocket parks. This could be a temporary function in areas which are earmarked for development in the future. On-street parking, traffic islands and other transit infrastructure are best suited for such transformation.
Links: A7, A8, A9, A24

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

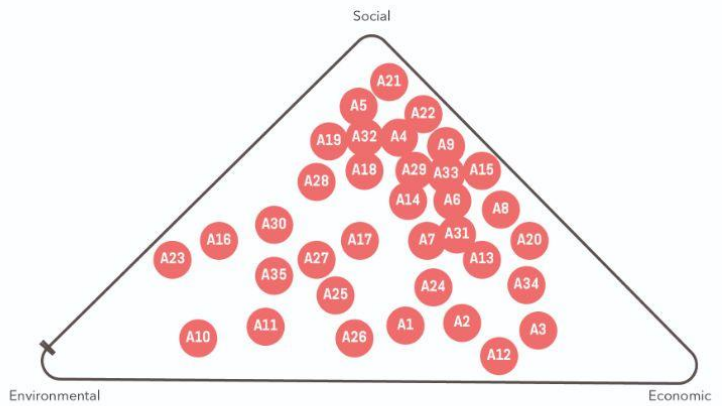
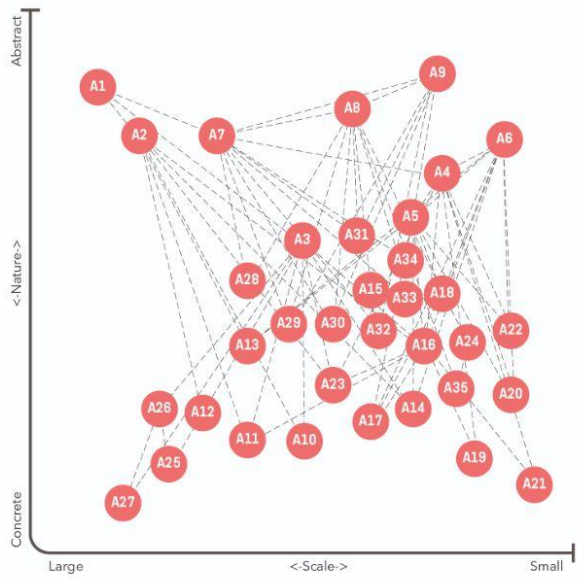
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

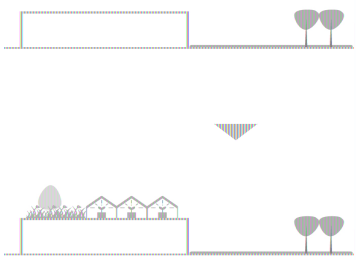
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



- Food bank
- Farmers Co-Operative
- Pop-up stalls
- Compost pits
- 250m Radius to Compost pit
- Foraging forests
- Rooftop green house
- Curbside agriculture
- Community gardens
- Cycle network for logistics
- Allotment gardens
- Super market
- Weekly market



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

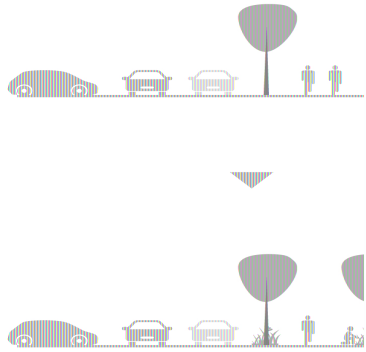
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



- Food bank
- Farmers Co-Operative
- Pop-up stalls
- Compost pits
- 250m Radius to Compost pit
- Foraging forests
- Rooftop green house
- Curbside agriculture
- Community gardens
- Cycle network for logistics
- Allotment gardens
- Super market
- Weekly market



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

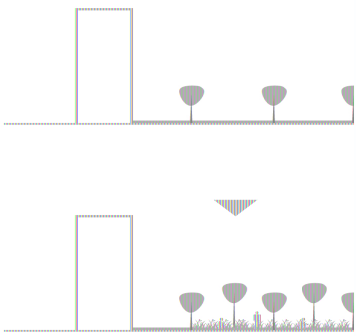
View from the street

Accessibility Patterns

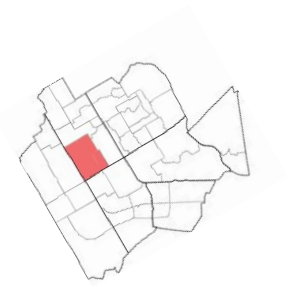
Food Potential Study

View from the street

Food Patterns



- Food bank
- Farmers Co-Operative
- Pop-up stalls
- Compost pits
- 250m Radius to Compost pit
- Foraging forests
- Rooftop green house
- Curbside agriculture
- Community gardens
- Cycle network for logistics
- Allotment gardens
- Super market
- Weekly market



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

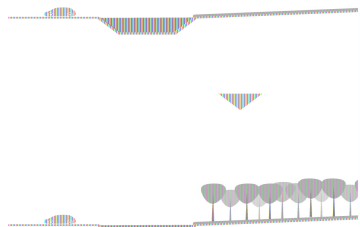
View from the street

Accessibility Patterns

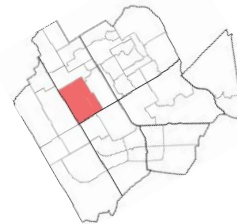
Food Potential Study

View from the street

Food Patterns



- | | | |
|---|--|---|
|  Food bank |  Foraging forests |  Cycle network for logistics |
|  Farmers Co-Operative |  Rooftop green house |  Allotment gardens |
|  Pop-up stalls |  Curbside agriculture |  Super market |
|  Compost pits |  Community gardens |  Weekly market |
|  250m Radius to Compost pit | | |



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

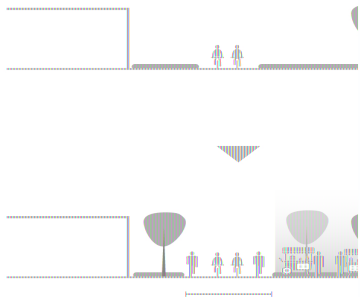
View from the street

Accessibility Patterns

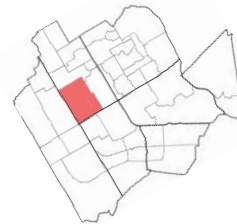
Food Potential Study

View from the street

Food Patterns



- | | | |
|---|--|---|
|  Food bank |  Foraging forests |  Cycle network for logistics |
|  Farmers Co-Operative |  Rooftop green house |  Allotment gardens |
|  Pop-up stalls |  Curbside agriculture |  Super market |
|  Compost pits |  Community gardens |  Weekly market |
|  250m Radius to Compost pit | | |



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

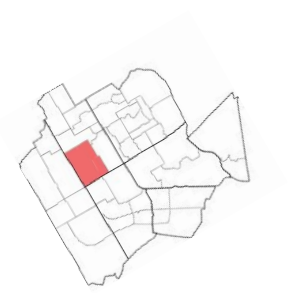
Food Potential Study

View from the street

Food Patterns



- Food bank
- Farmers Co-Operative
- Pop-up stalls
- Compost pits
- 250m Radius to Compost pit
- Foraging forests
- Rooftop green house
- Curbside agriculture
- Community gardens
- Cycle network for logistics
- Allotment gardens
- Super market
- Weekly market



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

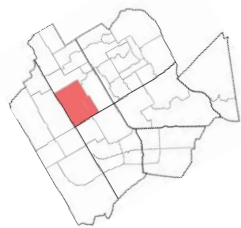
Accessibility Patterns

Food Potential Study

View from the street

Food Patterns

<p>F11 ●●●●</p> <p>Building EE M</p>  <p>Community Kitchen</p> <p>Setup shared kitchen at the community scale to encourage cooking together for events, festivals and larger shared occasions. This shared facility can help small scale food entrepreneurs to scale up their operations with lower capital investments as well.</p> <p>Link: P4, P12</p>	<p>F13 ●●●●</p> <p>Program EE L</p>  <p>Nutrition & Wellness Centre</p> <p>Setup a neighborhood scale nutrition and wellness centre to help promote healthy eating habits and other related lifestyle changes to the residents as part of national and regional government policies. Unleashing knowledge and providing individual consultation.</p> <p>Link: P6, P14, P15, P16</p>	<p>F14 ●●●●</p> <p>Program EE L</p>  <p>Food Bank</p> <p>Collect excess food from restaurants, supermarkets, and large events and distribute through an organized food bank at the neighborhood scale.</p> <p>Link: P2, P18, P9</p>	<p>F15 ●●●●</p> <p>Program E L</p>  <p>Farmers Co-Operative</p> <p>Promote the formation of Farmers Co-Operatives. A cooperative of amateur and professional farmers from the neighborhood to share knowledge, techniques and engage for constructive engagement with governing agencies.</p> <p>Link: P2, P3, P7, P8, P9, P10, W9</p>
---	--	--	---



-  Food bank
-  Farmers Co-Operative
-  Pop-up stalls
-  Foraging forests
-  Rooftop green house
-  Cycle network for logistics
-  Compost pits
-  Curbside agriculture
-  Allotment gardens
-  Community gardens
-  Super market
-  Weekly market

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

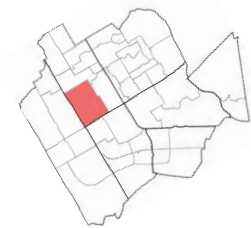
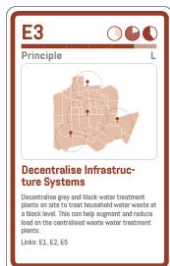
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



- Food bank
- Farmers Co-Operative
- Pop-up stalls
- Compost pits
- 250m Radius to Compost pit
- Foraging forests
- Rooftop green house
- Curbside agriculture
- Community gardens
- Cycle network for logistics
- Allotment gardens
- Super market
- Weekly market

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

[View from the street](#)

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



F4 Principle CC | M

Local Food Economy
 Promote local culture by bringing local food economy over walkable food bike shares. This allows food vendors to better connect with neighborhood and stays within the neighborhood to add revenue and their own benefits.
 LINK: F2, F5, F6, F10, F11, F12

F12 Street CC | S

Food Outlets + Kiosks
 Make sure every block throughout the food outlets in the outdoors when there is space to provide food options for people on the street. This also creates opportunity for small scale entrepreneurs to reach a larger customer base with low capital investment.
 LINK: F2, F4, F6, F11

Dv16 Building M

Active Plinths
 Equip active ground with complementary facilities to support neighborhood vitality which extend above the ground plane. This improves the vibrancy of streets and makes them feel safe. It also improves the economic sustainability of new buildings.
 LINK: Dv16, Dv17, Dv18, Dv19, Dv20

Dv17 Building M

Cluster similar activities
 Cluster related functions together to improve the network effects of individual functions. This can also be used to create for various specific enterprises. Restaurants clustered together can manage delivery and waste together when spatially clustered.
 LINK: Dv16, Dv18, Dv19, Dv20, Dv21

A24 Street S

Adaptive On-Street Parking
 Parking spaces can become transient functions such as both with dining, picnic parks or seating options. Adaptive design could be used for an on-street parking whose use could be programmatically reconfigured based on contextual functions.
 LINK: A17, A18, A20

A22 Street S

Wide Enough to Walk and Talk
 Design sidewalks and pathways to be wide enough for both a person pushing a stroller and walking alongside. The critical dimension of sidewalk is required to make them viable spaces and not just functional infrastructure.
 LINK: J1, J4, J6, J8

F1 Principle CC | M

Permaculture
 Permaculture practices as the way of growing food is an approach to land management and philosophy that when appropriately combined in flourishing natural ecosystems. It includes a set of design principles derived from whole systems thinking.
 LINK: F2, F6, F7, F8, F9

F2 Principle CC | L

Self Sustaining Food Chain
 Capture and nurture a local and self-sustaining food chain as much as possible. This means locally producing food, adding to local markets and finally processing food waste within the neighborhood.
 LINK: F2, F3, F4, F6, F13

F8 Street/Canal CC | M

Curbside Agriculture
 Plant edible, fruit producing trees and plants to replace some curbside functions, use indigenous, and colorful species along roads and canals to improve food supply. This also increases productivity of urban green while also adding biodiversity.
 LINK: F1, F2, F10, F15

F6 Principle CC | L

Utilize Residual Spaces
 Reclaim converted ranges of space to improve its productive capacity. Buffer spaces, walkways, excessive parking areas can be rethought as other functions for food production with the required safety precautions.
 LINK: F2, F3, F4, F6, W9

F15 Program CC | L

Farmers Co-Operative
 Promote the formation of Farmers Co-Operative. A cooperative of urban and professional farmers from the neighborhood to share knowledge, techniques and resources for construction engagement with governing agencies.
 LINK: F2, F3, F7, F8, F10, F12, W9

F9 Open Space CC | M

Community Gardens
 Convert large uncared neighborhood scale spaces to community gardens. Land that is having permanent change in the future could be temporarily converted to community garden to buffer local food supply.
 LINK: F1, F2, F10, F13



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

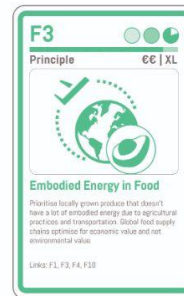
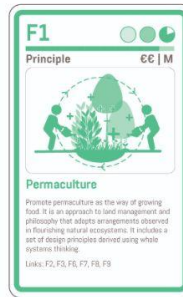
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

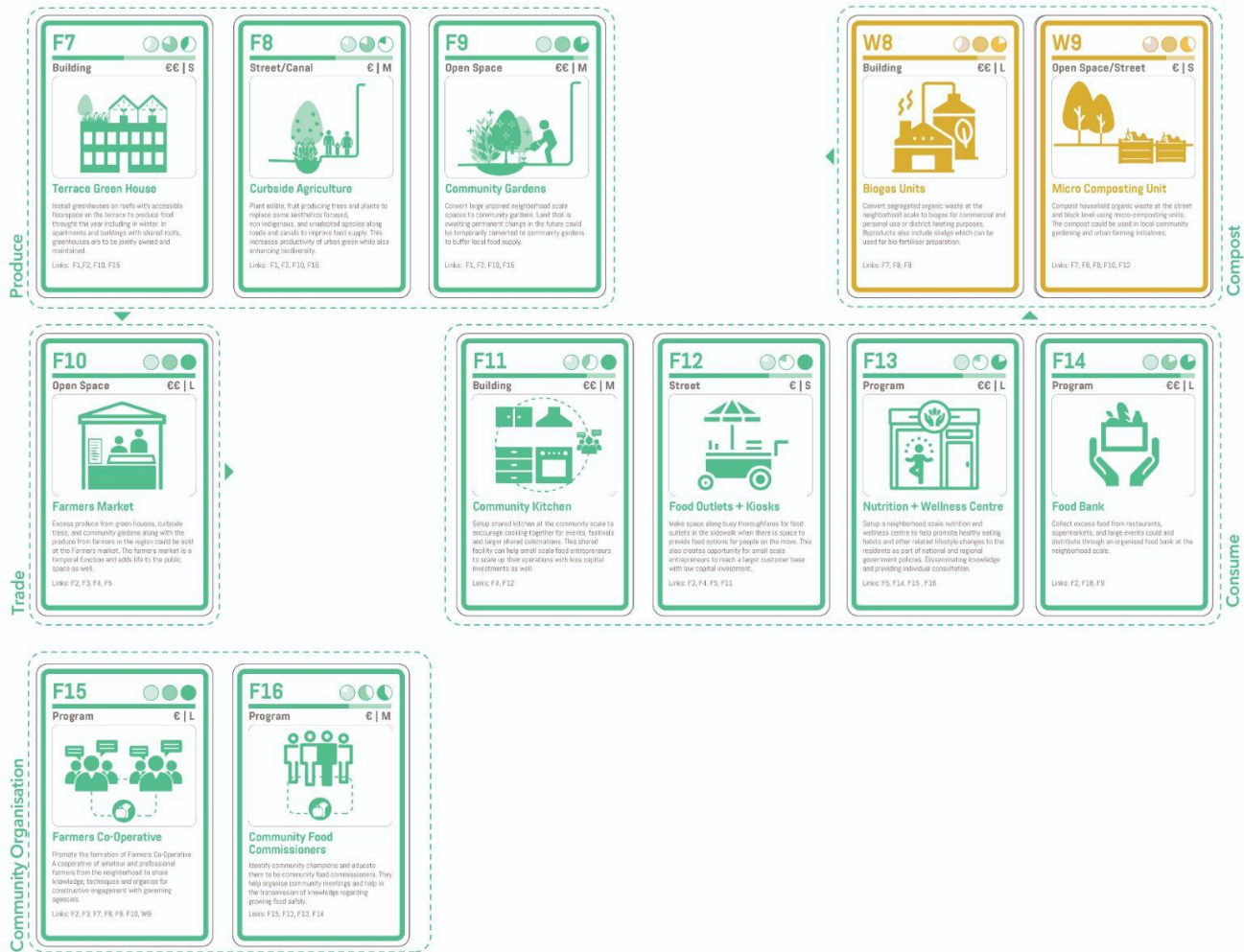
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

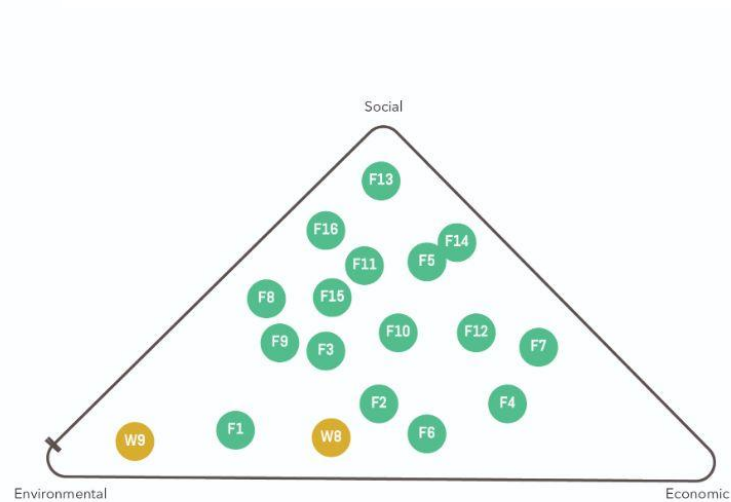
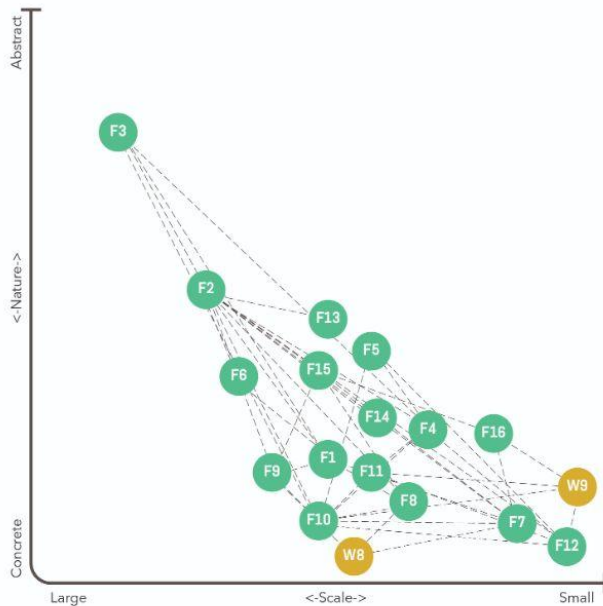
View from the street

Accessibility Patterns

Food Potential Study

View from the street

Food Patterns



4. Developing a Pattern Language

4.4 Patterns

The image displays a series of 21 pattern cards, each representing a different urban design principle. The cards are arranged in a row, slightly overlapping, and are color-coded. Each card contains a title, a principle code, a small icon, a brief description, and a list of links to related cards.

Code	Category	Scale	Icon	Description	Links
A1	Principle	XL	Multi-Nuclei Model	Create multiple city-level centralities within the city. This prevents over-crowding and sets a way daily urban cycles focused in one centre and enables sustainable, distributed development across the city.	A2, A3
De1	Principle	M	Modular Construction	Develop modular construction methods in new construction so that the buildings are able to adapt to changing requirements over time in the form of either restructuring or dismantling to be reused elsewhere.	Dv0, Dv8, Dv10, Dv11, Dv12, Dv18, Dv19
Dv1	Building	M	Form Based Code	Develop a form-based code at the neighborhood scale to guide cohesive development and design of the public realm. Excessive regulation creates extreme standardization of building form and elements, reducing the vibrancy of streetscapes.	Dv2, Dv3, Dv4, Dv6, Dv9, Dv10, Dv11, Dv12, Dv13
GB1	Principle	XL	Patches and Corridors	Connect fragmented landscape patches with green and blue corridors. This is essential to ensure the ability of species to move between landlocked biodiverse patches within the urban area.	GB2, GB3, GB6, GB7, GB8
E1	Principle	EE M	Energy Net Neutral Buildings	Ensure new buildings are energy neutral. That is, they generate as much energy as they consume. Work towards making older buildings in the neighborhood energy neutral as well.	E2, E3
W1	Principle	EE XL	R Ladder	Promote the R ladder as a way of thinking to refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose and recycle waste flows at the neighborhood and at the personal level.	W4, W7
F1	Principle	EE M	Permaculture	Promote permaculture as the way of growing food. It is an approach to land management and philosophy that adapts arrangements observed in flourishing natural ecosystems. It includes a set of design principles derived using whole systems thinking.	F2, F3, F6, F7, F8, F9

01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

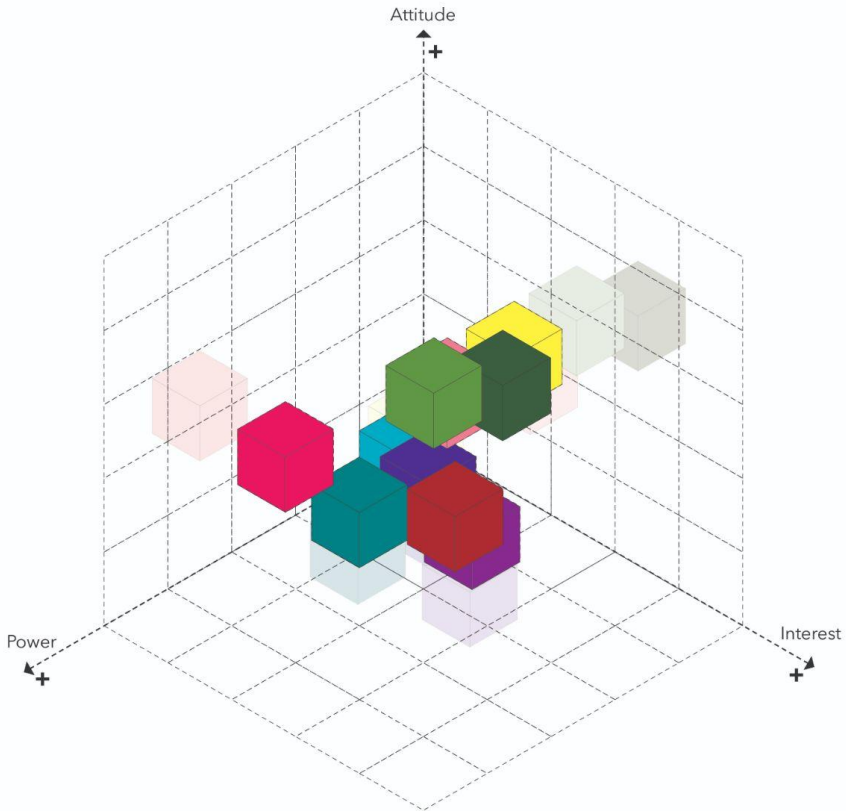
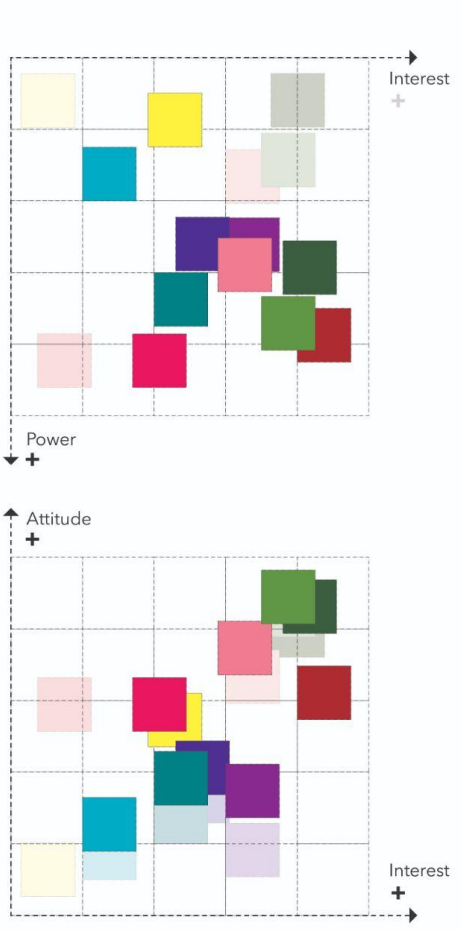
Operationalising
Change

06

Design
Testing

5. Operationalising Change

5.1 Stakeholders



- National Govt
- Municipality
- Private infra Co
- Developers
- Community Orgs
- Regional Bodies
- Public Infra Co
- Housing Co
- Special purpose partnerships
- Unorganised Citizens

5. Operationalising Change

5.2 Procedural Patterns

Procedural

G1

Principle XL

Subsidiarity

Subsidiarity is a principle of social organization that holds that social and political issues should be dealt with at the most immediate (or local) level that is competent with their resolution.

Links: G2, G3, G4, G5, G9, G10, G11, G12

G2

Principle M

Place Based Policy Modifiers

Provide provisions for city wide policies to be locally adapted while preserving the intention behind it. Non average conditions like those experienced in Zurichst requires context specific policy modifiers.

Links: G1, G6, G7, G8, G13, G14, G15, G16, G17, G19

G3

Principle L

Commons

Use "No commons" as a new discourse habit to frame the terms of discussion for more issues and orders our personal lives in a way that aligns with public resources. It helps draw new insights among disparate market participants, and it also encourages public interest carbon analysis thereby a new shared language.

Links: G1, G9, G18, G19, G20

G4

Principle M

Co-Production

Co-produce spaces and systems in close collaboration with the residents and the end users of the intended projects. This ensures that problem definition and solution match the ground realities.

Links: G1, G5, G21, G22, G23, G24, G25

G5

Program/Policy M

Community Cooperatives

Facilitate the organization of citizens in strong community cooperatives to assert their political, economic and social rights. This can help communities engage with the existing system in more effective ways.

Links: G1, G4, G8, G9, G13, G822, G824, G19, W17, F15

G6

Principle XL

Financial Nudges

Creates taxation and subsidizing regimes that helps local actors towards equitable and sustainable development. Extreme caution has to be applied to ensure there aren't negative externalities.

Links: G2, G7, G26, G27

G7

Principle L

Leveraging New Forms of Funding

Use existing and new forms of public assets as leverages towards raising funding for projects aimed at collective good.

Links: G2, G6, G26, G28, G29

G8

Principle L

Collective Financing

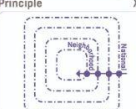




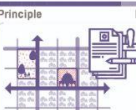
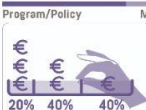
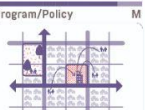







Facilitate citizens to contribute towards public projects aimed at the common good as a way of buying into it and a co-owner of shared asset.

Links: G2, G6, G31, G32, G33

Financial

5. Operationalising Change

5.2 Procedural Patterns

<p>G1 Principle XL</p>  <p>Subsidiarity</p> <p>Subsidiarity is a principle of social organization that holds that social and political issues should be dealt with at the most immediate (or local) level that is consistent with their resolution.</p> <p>Links: G2, G3, G4, G5, G6, G8, G10, G11, G12</p>	<p>G9 Program/Policy M</p>  <p>Buurt Planning Office</p> <p>Creating Buurt Planning offices, one for each neighborhood can act as a nodal agency in community planning and co-creation efforts.</p> <p>Links: G1, G4, G5, G6, G10, G12</p>	<p>G10 Program/Policy M</p>  <p>Participation as Labour</p> <p>Consider participation as labour and remunerate people accordingly. Either in forms of money or coupons towards public transport and other offers in public facilities. This can ensure vulnerable communities participate consistently.</p> <p>Links: G1, G4, G5, G8, G10, G12</p>	<p>G11 Program/Policy M</p>  <p>Community Champions</p> <p>Promote community champions to leadership positions in community organisations through democratic processes. Their social capital can help mobilise the local community towards collective action.</p> <p>Links: G1, G4, G5, G8, G10, G12</p>	<p>G12 Program/Policy M</p>  <p>Vulnerable as Leaders</p> <p>Drawn provisions for vulnerable sections of the population such as children, women and men of colour, poor and elderly to be represented in positions of power in community organisations, collective action.</p> <p>Links: G1, G4, G5, G10, G14</p>	
<p>G2 Principle M</p>  <p>Place Based Policy Modifiers</p> <p>Provide provisions for city wide policies to be locally adapted while preserving the intention behind it. Non average conditions like those experienced in Durbest require certain specific policy modifiers.</p> <p>Links: G2, G6, G7, G8, G13, G14, G15, G16, G17</p>	<p>G13 Program/Policy M</p>  <p>Provide Breaks for 40-40-20 Rule</p> <p>Adopt the 40-40-20 rule for house pricing to reflect local conditions. If a neighbourhood has excess supply of social housing, reduce the new development can have more middle income housing to complement that.</p> <p>Links: G2, G14</p>	<p>G14 Program/Policy M</p>  <p>Prioritise Existing Resident in New Developments</p> <p>Provide existing residents with a chance to move to new developments as a way to extend the social networks in new developments and as a way for people to improve their housing condition without moving places.</p> <p>Links: G2, G13</p>	<p>G15 Program/Policy L</p>  <p>Invest Landlord Levy on Upgradation of Housing</p> <p>Introduce the landlord levy employed on specific social housing estates for their upgradation and improvement.</p> <p>Links: G2, G13</p>	<p>G16 Program/Policy XL</p>  <p>Micro Economic Zones With Lex Regulations</p> <p>Introduce micro economic zones similar to special economic zones at the neighborhood scale, where it is easier to start and run a business on a plot basis without a lot of regulatory gatekeeping.</p> <p>Links: G2, G13</p>	<p>G17 Program/Policy XL</p>  <p>Temporary to Permanent Cultural Breeding Grounds</p> <p>Help transition culture of breeding grounds from temporary locations to permanent locations within the neighbourhood to ensure their network effects are intact and help nurture the art and cultural scenes in neighborhoods.</p> <p>Links: G2, G13</p>
<p>G3 Principle L</p>  <p>Commons</p> <p>Use the common as a new discourse helps to frame the terms of discussion for many issues and create our personal stake in protecting shared public resources. It helps show new images around publicly owned resources, and in this sense helps fragmented public interest combine to create new shared heritage.</p> <p>Links: G3, G5, G6, G10, G18</p>	<p>G18 Principle L</p>  <p>Organise to Leverage Social Capital</p> <p>Organise to leverage social capital and engage effectively with government and other stakeholders in vulnerable communities, the ability to self-organise is key towards ensuring translation of efforts to productive outcomes.</p> <p>Links: G2, G3, G5, G13</p>	<p>G19 Program/Policy M</p>  <p>Community Stewardship</p> <p>Support informal governance of urban spaces and the public realm of streets, squares and parks by encouraging the informal stewardship of adjacent residents, businesses and institutions by providing resources as needed, but remain them also of the limits of their authority.</p> <p>Links: G2, G5, G8, G10, G11, G12, G15, G16, G17</p>	<p>G20 Program/Policy M</p>  <p>Open Data for the People</p> <p>Build a repository of local data resources within each neighborhood. Provide training and support to use new technology for all citizens, with a special focus on children in the community.</p> <p>Links: G2, G3, G5, G18</p>		

5. Operationalising Change

5.2 Procedural Patterns



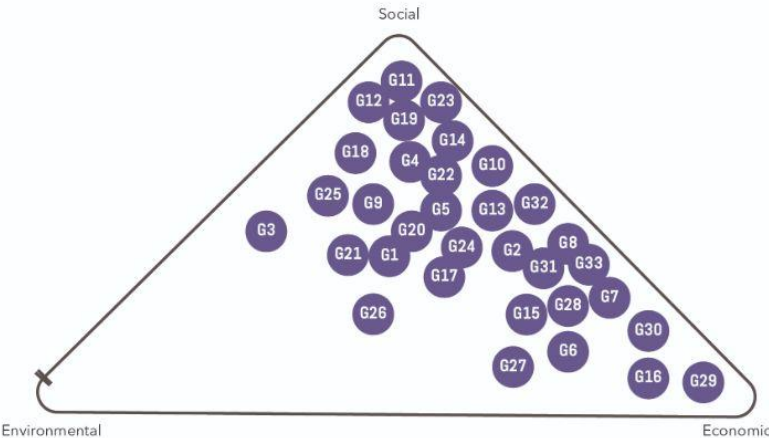
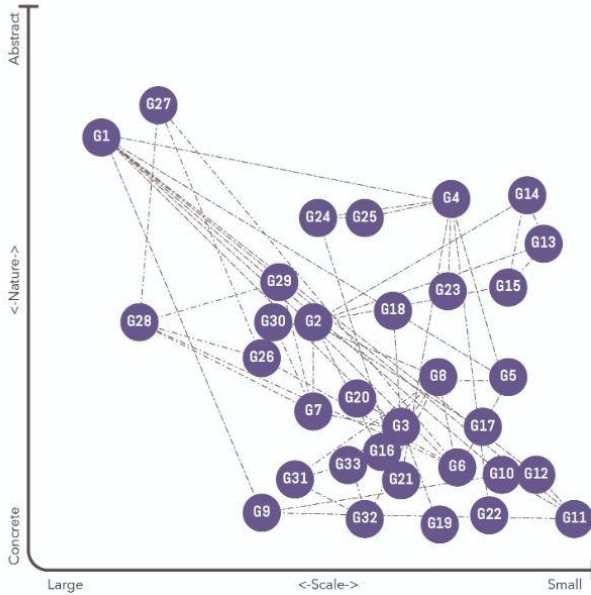
5. Operationalising Change

5.2 Procedural Patterns



5. Operationalising Change

5.2 Procedural Patterns



5. Operationalising Change

5.3 Organisational Setup

G5
Program/Policy M

Community Cooperatives

Facilitates the registration of citizens in strong community cooperatives to exert their political, economic and social rights. This can help communities engage with the existing system in more effective ways.

Links: G5, G4, D8, D8.1, D8.2, D8.3, D8.4, D8.5, W17, F15

De13
Program M

Housing Co-Operatives

Promotes housing cooperatives as they make building houses affordable while also making them greener and more inclusive. Housing co-operatives give greater control to tenants and residents towards the design, construction, management and maintenance of housing stock.

Links: D22, D23, C24, W17, F15

GB22
Program € | M

Community Water Forum

Facilitates residents and businesses to form community water forums that can help build water consciousness in the community and spread knowledge on best practices towards conserving water at the personal and community levels.

Links: D43, D44, C13, W17, F15

GB24
Program € | M

Community Nature Forums

Facilitates residents and businesses to form community nature forums that can help build awareness in the community and spread knowledge on best practices concerning nature on the personal and community scales.

Links: D43, D44, C23, W17, F15

E19
Program € | M

Community Energy Cooperative

Facilitates residents and businesses to form energy cooperatives to share knowledge, capital and other resources towards installing and maintaining energy production and storage artefacts like solar panels and batteries.

Links: E1, E2, E4, E5, E6, E18, D13, D22, D23, W17, F15

W17
Program € | M

Community Waste Cooperative

Facilitates residents and businesses to form energy cooperatives to share knowledge, capital and other resources towards installing and maintaining energy production and storage artefacts like solar panels and batteries.

Links: D43, D44, C23, W17, F15

F15
Program € | L

Farmers Co-Operative Cooperative

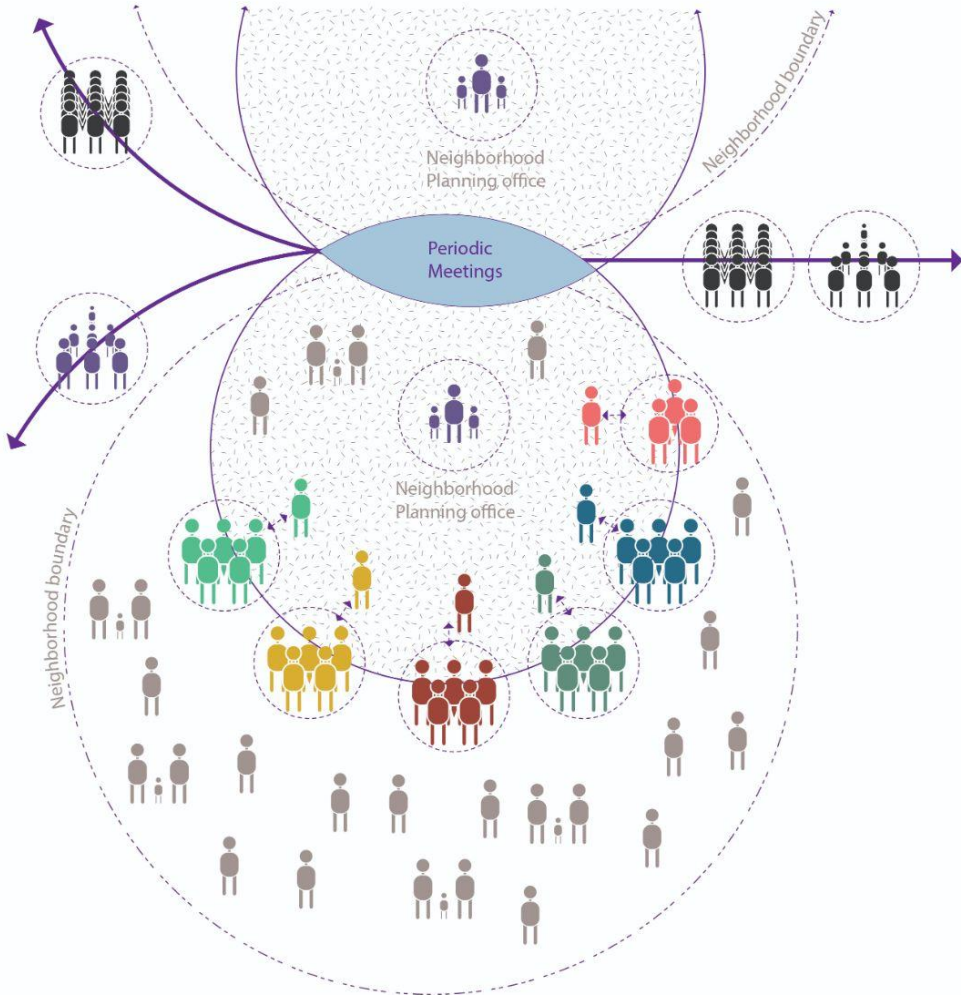
A cooperative of amateur and professional farmers from the region that to share knowledge, techniques and expertise for improved farm engagement with governing agencies.

Links: D43, D44, C23, W17, F15



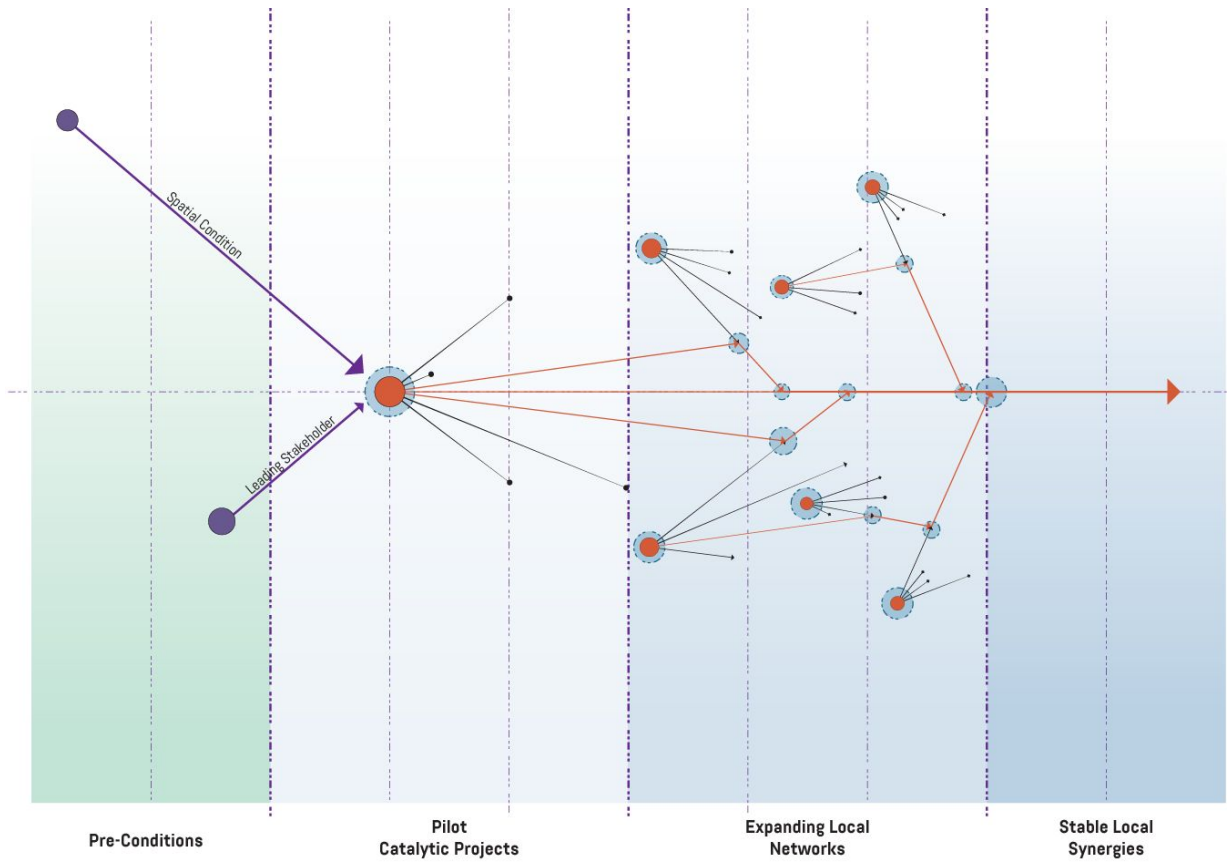
5. Operationalising Change

5.3 Organisational Setup



5. Operationalising Change

5.4 Operational Framework



01

Defining the
Problem and
Methods

02

Analysing
Status Quo

03

Strategic
Approach
towards Change

04

Developing a
Pattern
Language

05

Operationalising
Change

06

Design
Testing

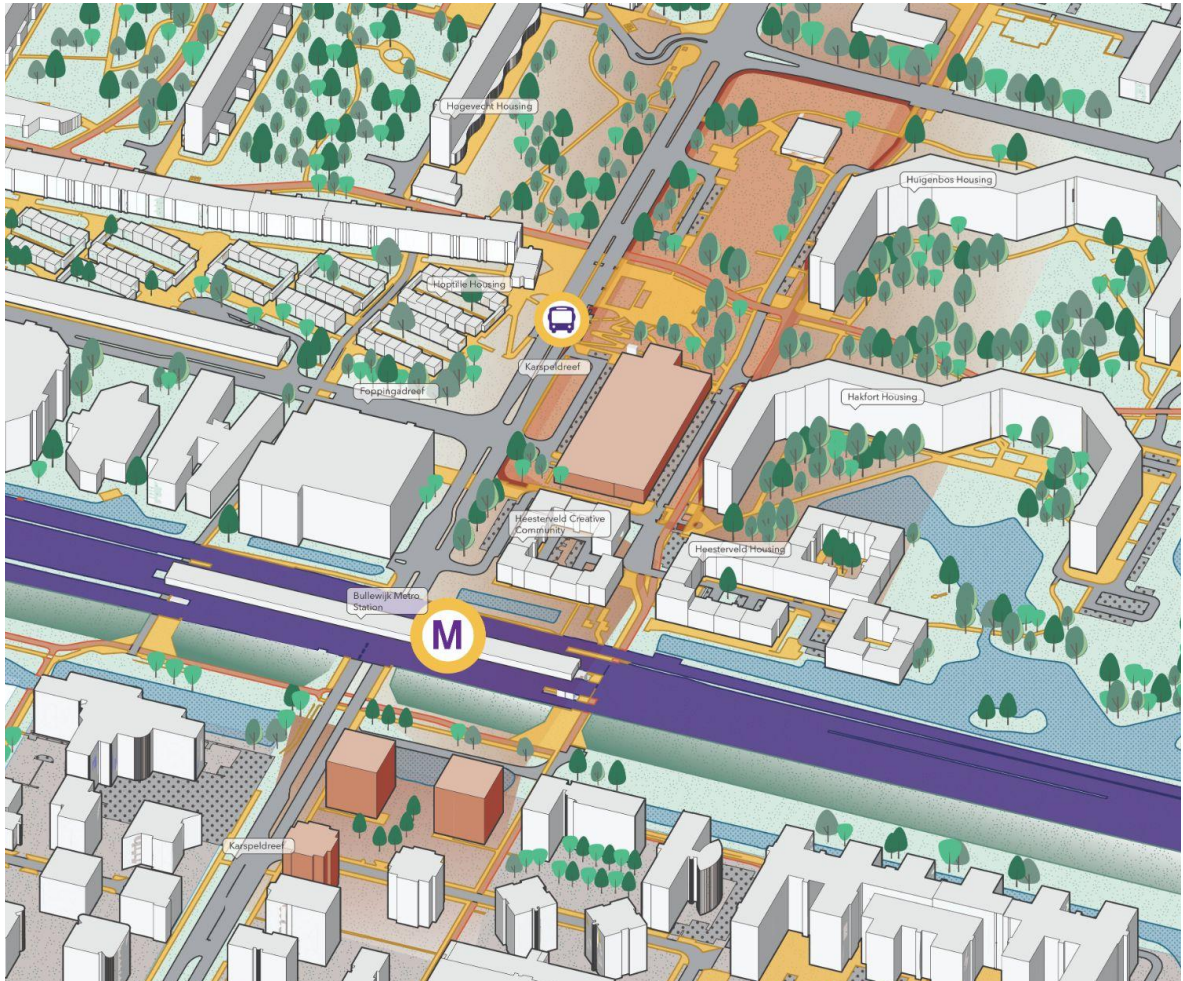
6. Design Testing

6.1 Bullewijk



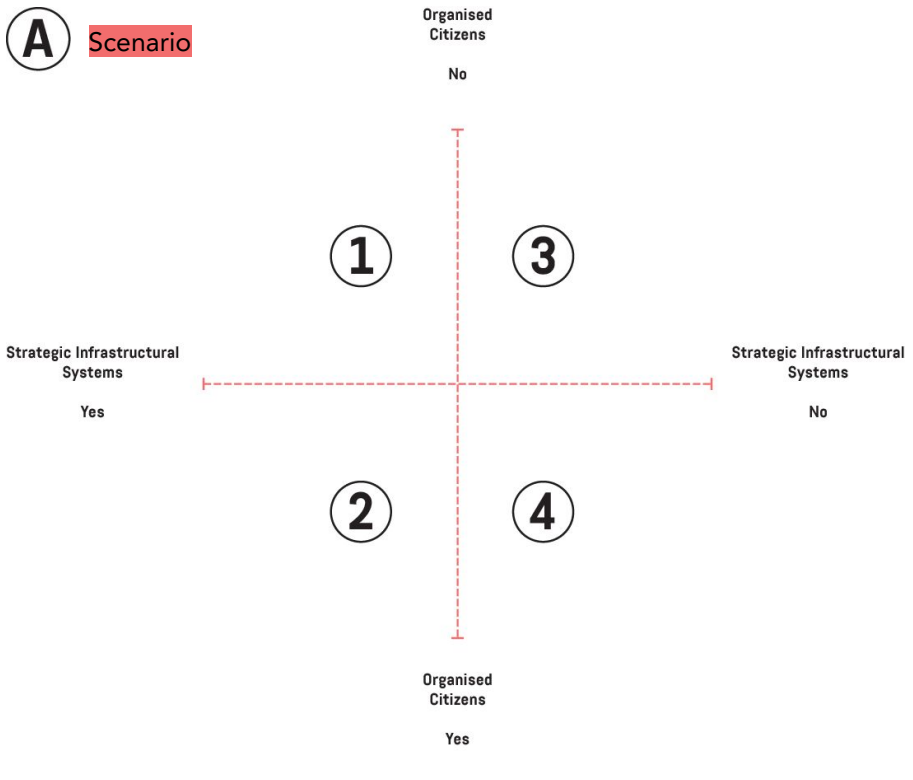
6. Design Testing

6.1 Bullewijk



6. Design Testing

6.2 Conditions



6. Design Testing

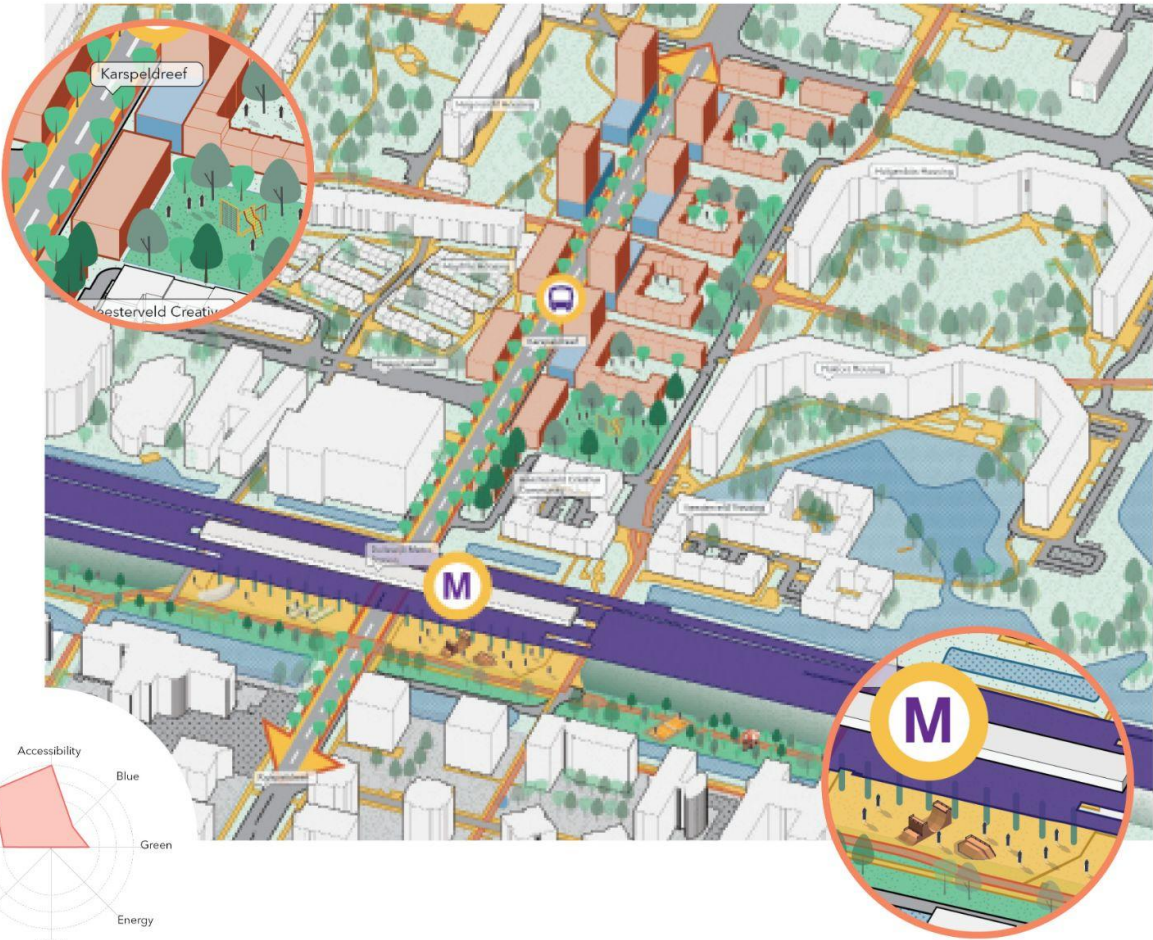
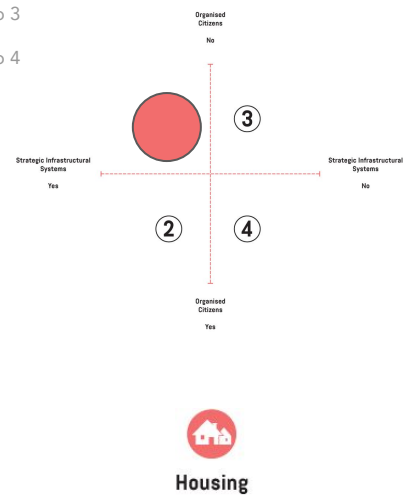
6.3 Scenarios

Scenario 1

Scenario 2

Scenario 3

Scenario 4



6. Design Testing

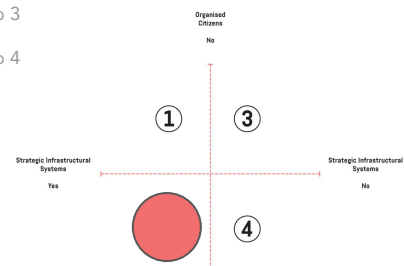
6.3 Scenarios

Scenario 1

Scenario 2

Scenario 3

Scenario 4



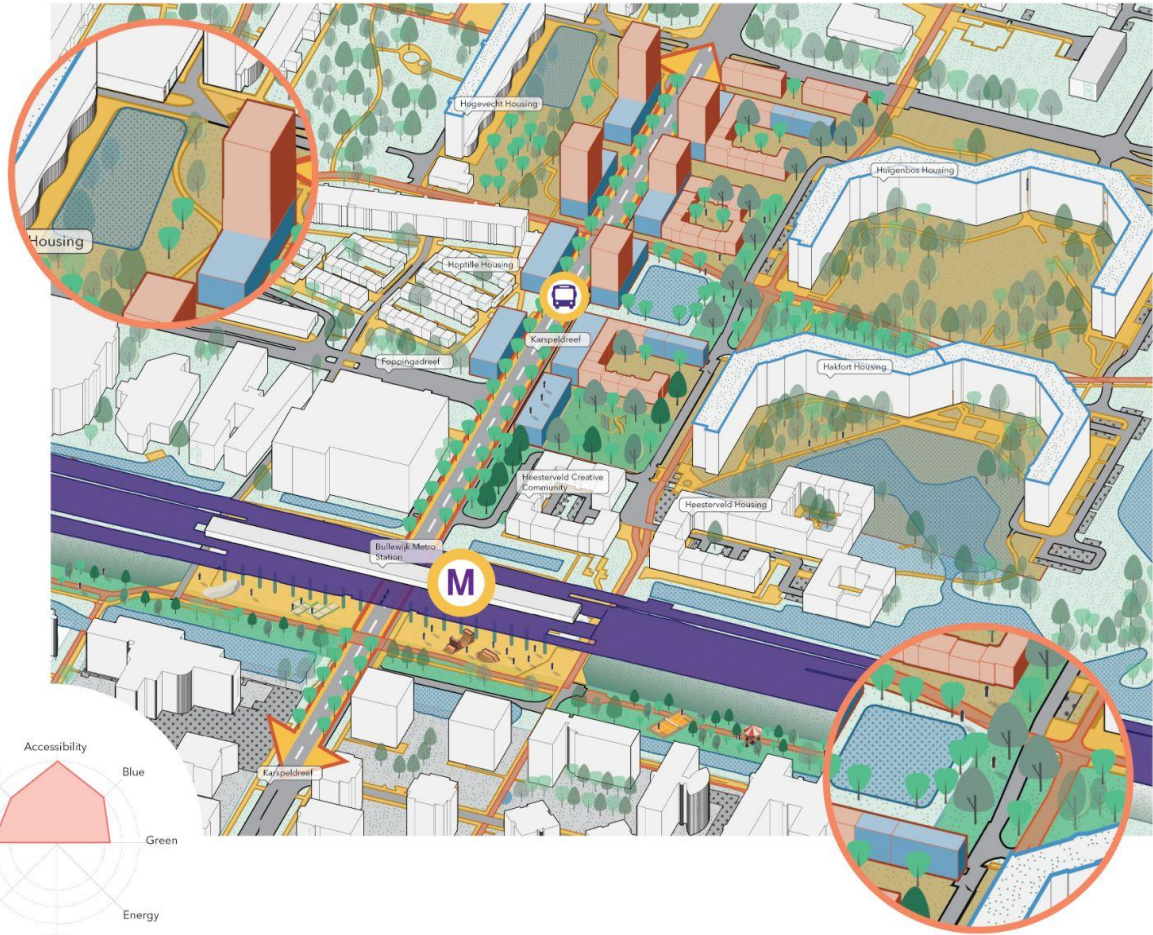
Housing



Mixed use



Climate adaptation



6. Design Testing

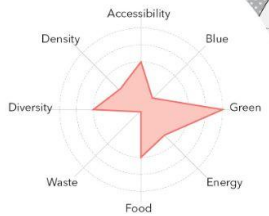
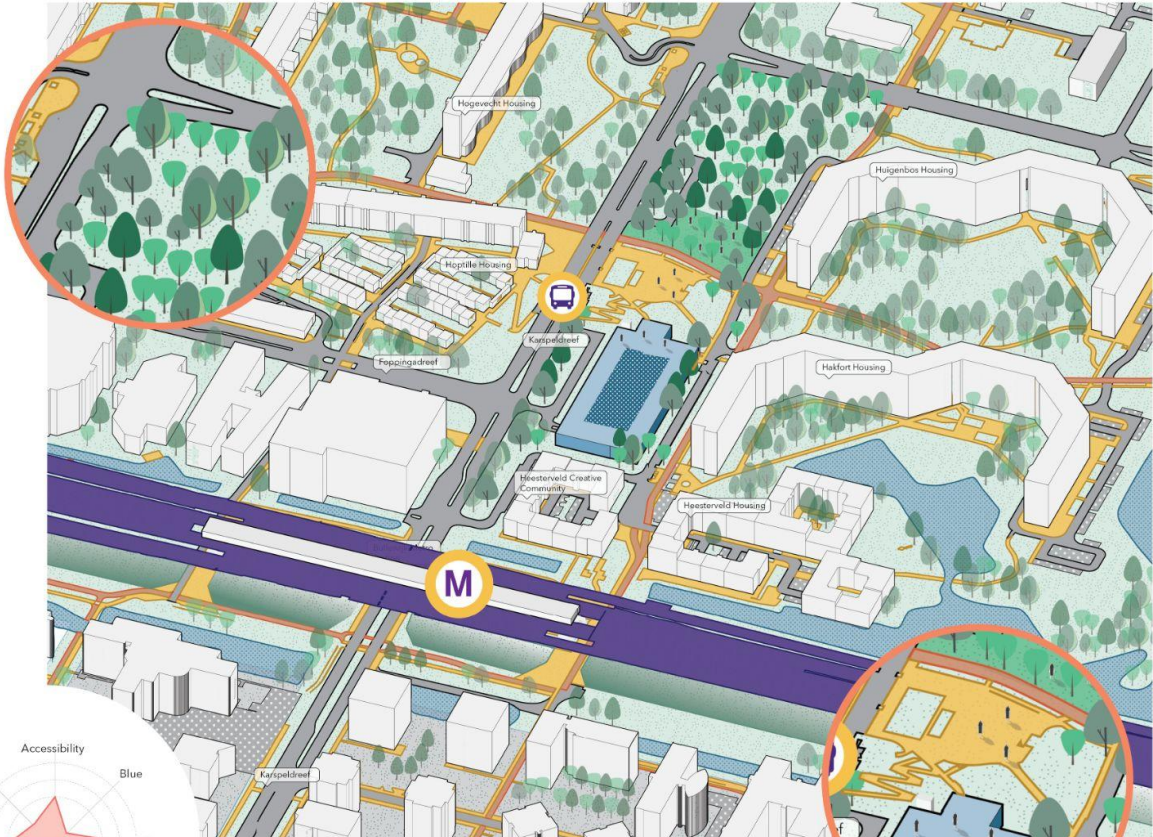
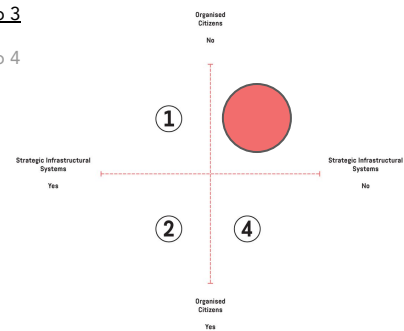
6.3 Scenarios

Scenario 1

Scenario 2

Scenario 3

Scenario 4



6. Design Testing

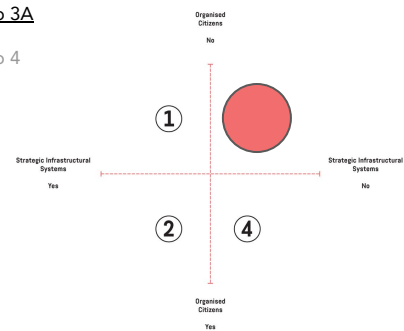
6.3 Scenarios

Scenario 1

Scenario 2

Scenario 3A

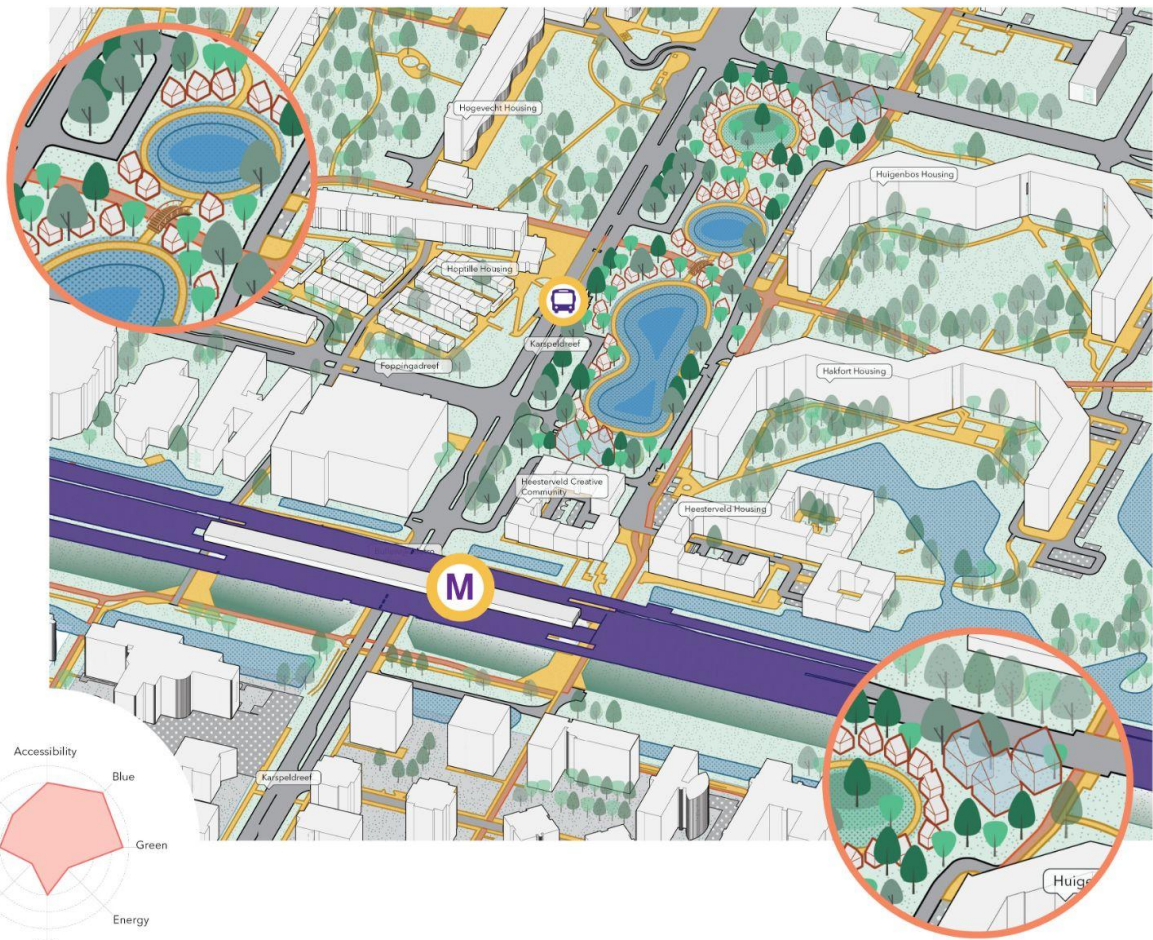
Scenario 4



Climate adaptation

Housing

Local Food System



6. Design Testing

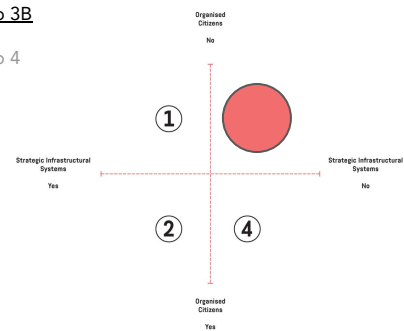
6.3 Scenarios

Scenario 1

Scenario 2

Scenario 3B

Scenario 4



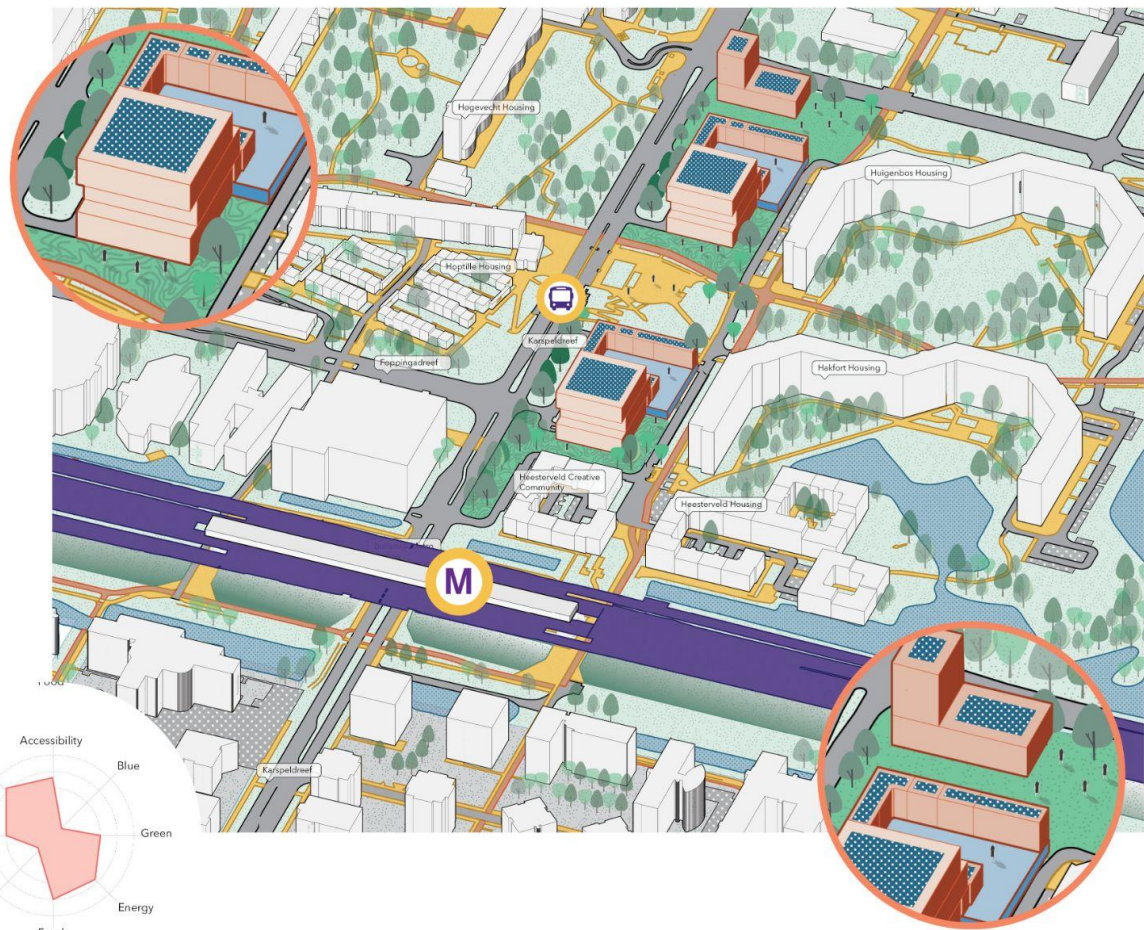
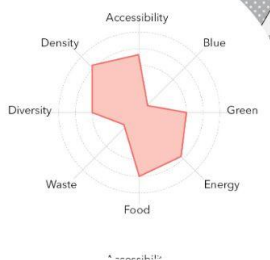
Housing



Clean Energy

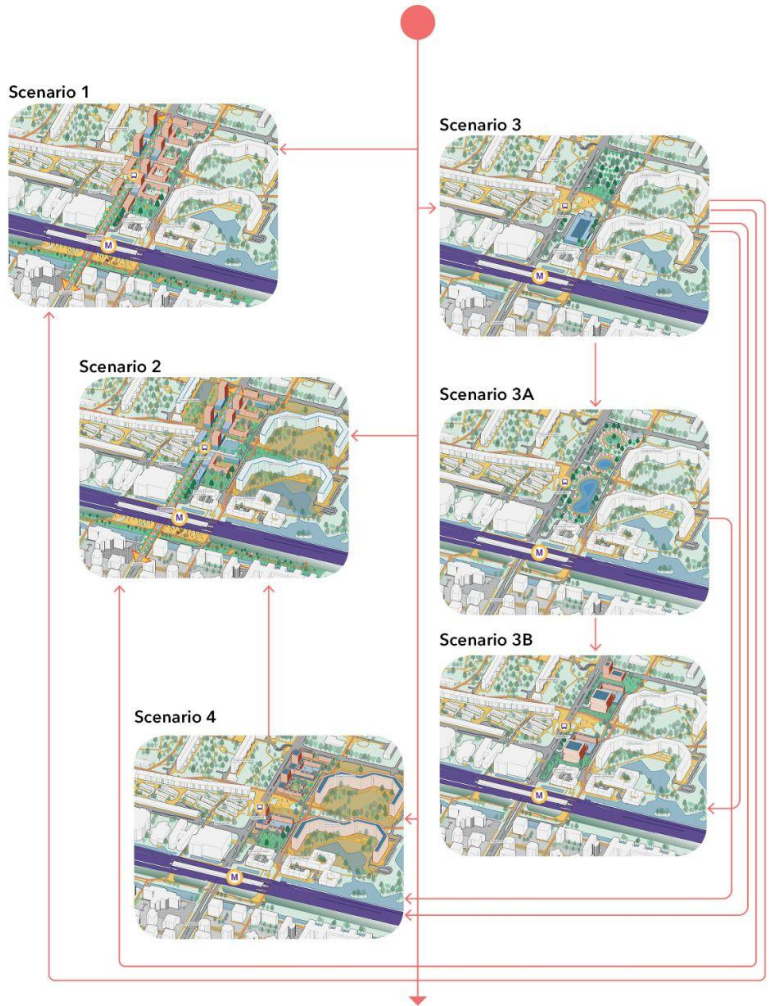


Local Food System



6. Design Testing

6.4 Pathways



b.

Conclusions
&
Reflections

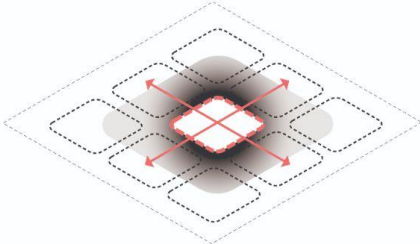
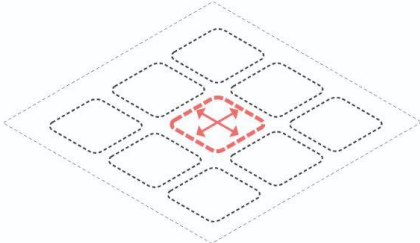
How can the fragmented and vulnerable neighborhoods of Amsterdam Zuidoost,
become liveable, sustainable, and just,
through an integrated urban development process?

b. Conclusions & Reflections

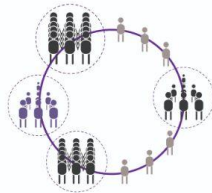
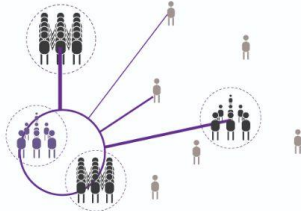
Sectoral



Spatial



Stakeholders



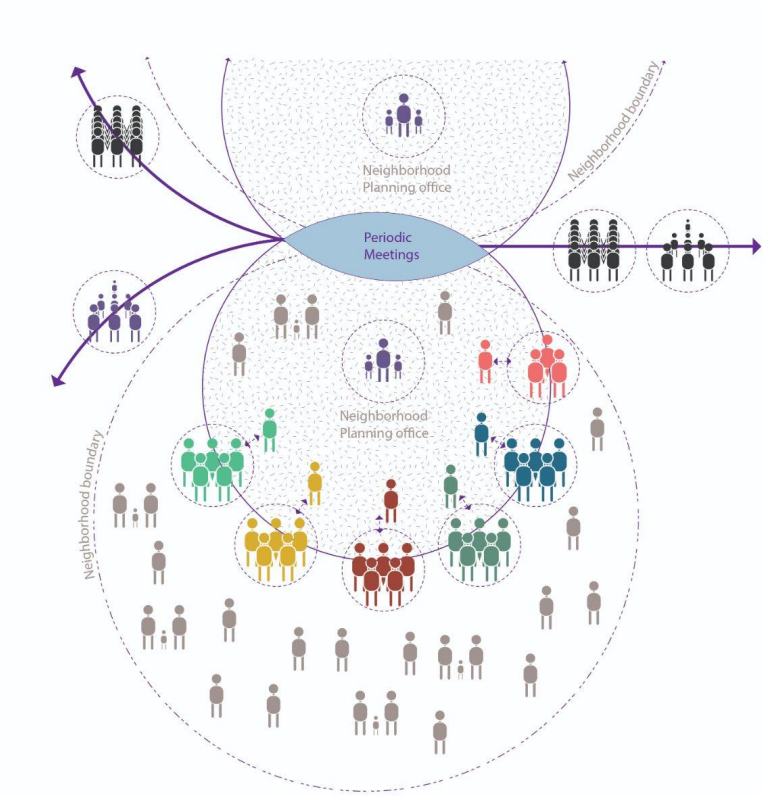
b. Conclusions & Reflections

Patterns

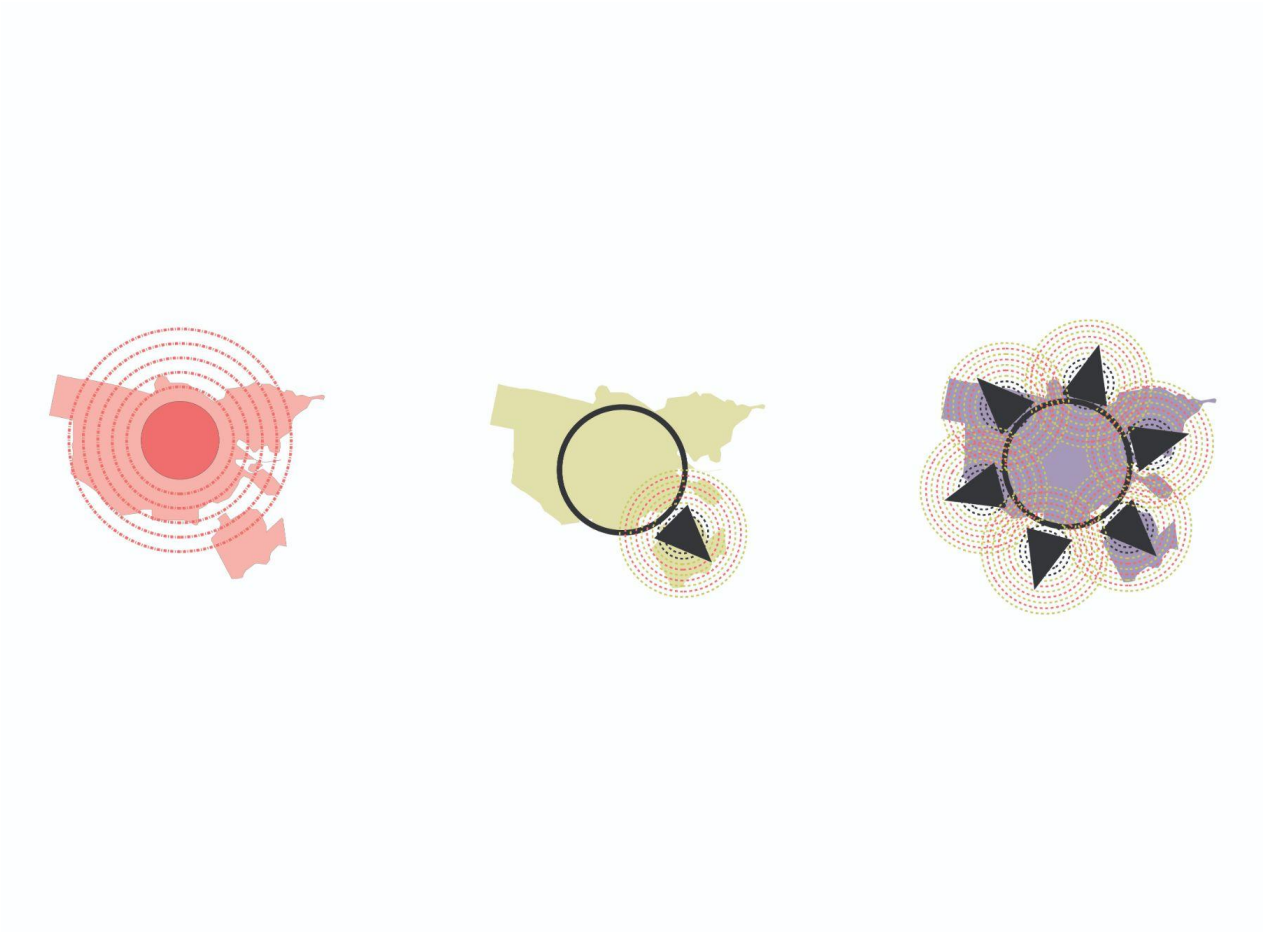


b. Conclusions & Reflections

Frameworks



b. Conclusions & Reflections





2nd July, 2021
P5 Presentation

Reterritorialising Zuidoost

towards sustainable, liveable and just assemblages

Ganesh Babu R P
5032644

1st mentor: Dipl.ing. Birgit Hausleitner
2nd mentor: Dr. Marcin Dąbrowski

Reterritorialising Zuidooost

towards sustainable, liveable and just assemblages

Ganesh Babu R P
5032644

1st mentor: Dipl.ing. Birgit Hausleitner
2nd mentor: Dr. Marcin Dąbrowski



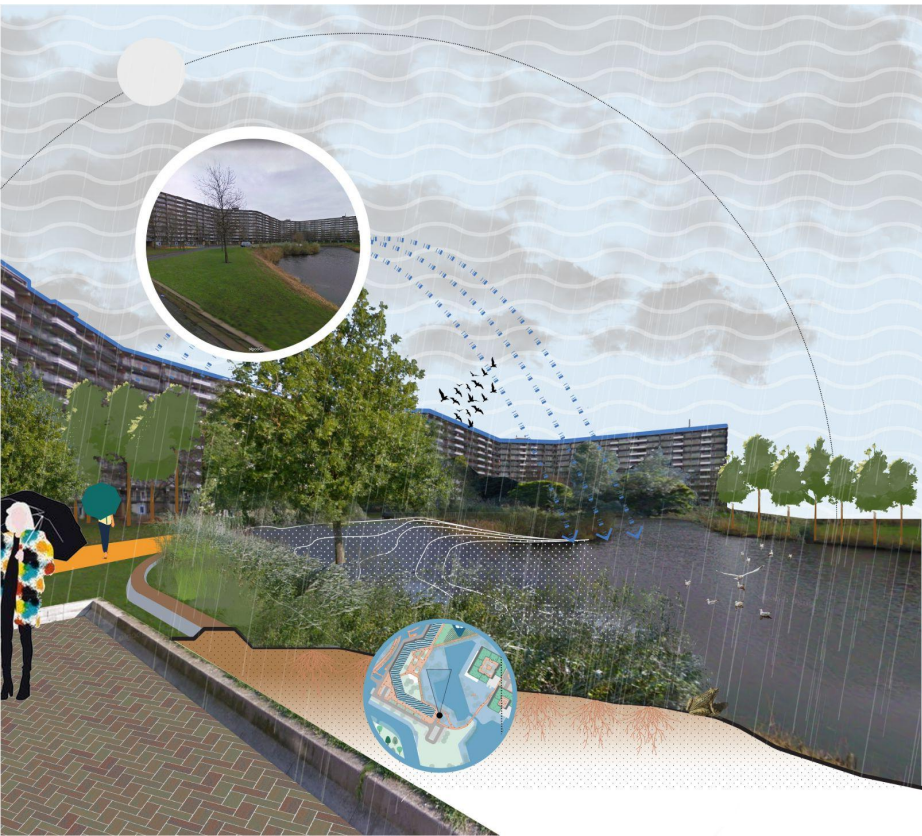
4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies





4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies

- Public space
- Arterial roads
- Shared streets
- Local streets
- High density city block
- Medium density city block
- Low density city block
- Top up densification
- 5-10 stories
- 3-5 stories
- 2-3 stories



4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies



4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies



- Arterial roads
- Shared streets
- Local streets

- Public space
- Developer Driven
- Cooperative Ownership
- DIY housing

- Amenity
- Live
- Amenity/Work/Live
- Makerspaces/Small industries

4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies



4. Analysis

4.4 Green/Blue Networks

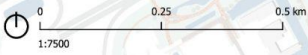
Opportunities

Urgencies



- Gradient of vegetation
- Urban forest
- Surface water
- Blue Roof
- Room for water
- Green Roof
- Curbside water treatment
- Depaving

- Water Cooperative
- Water storage
- Phytoremediation

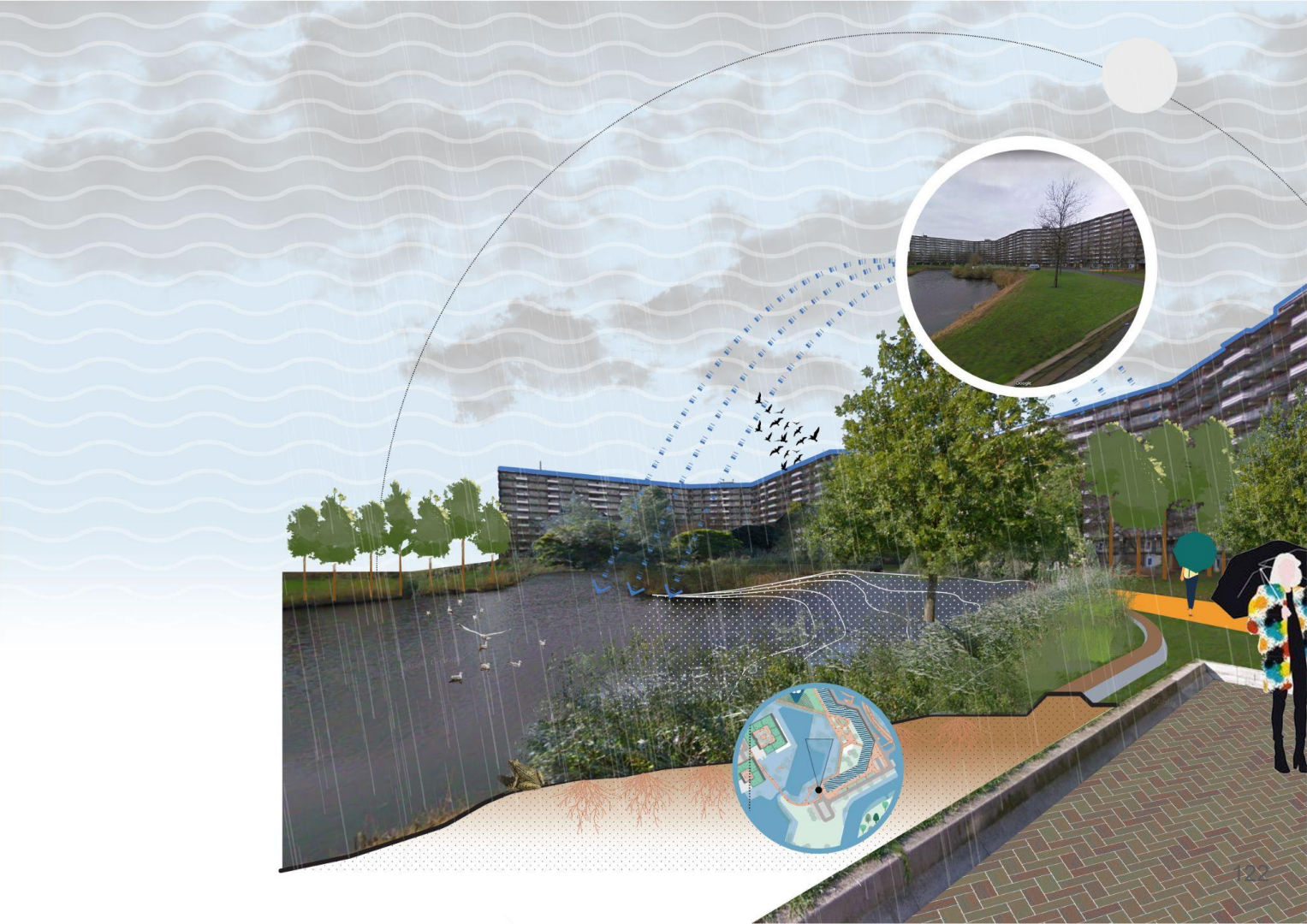


4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies



4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns


Energy Potential Study

View from the street

Energy Patterns




 Energy storage

 Water heat storage

 Solar Panels

 Wind Turbines


 Energy collective

 District heat network

 Micro grid

 Energy hub

 Heat source

 Fast charging

4. Developing a Pattern Language

4.3 Potential Study

Accessibility Potential Study

View from the street

Accessibility Patterns

Energy Potential Study

View from the street

Energy Patterns



4. Analysis

4.4 Green/Blue Networks

Opportunities

Urgencies



- Food bank
- Farmers Co-Operative
- Pop-up stalls
- Compost pits
- 250m Radius to Compost pit
- Foraging forests
- Rooftop green house
- Curbside agriculture
- Community gardens
- Cycle network for logistics
- Allotment gardens
- Super market
- Weekly market



4. Analysis

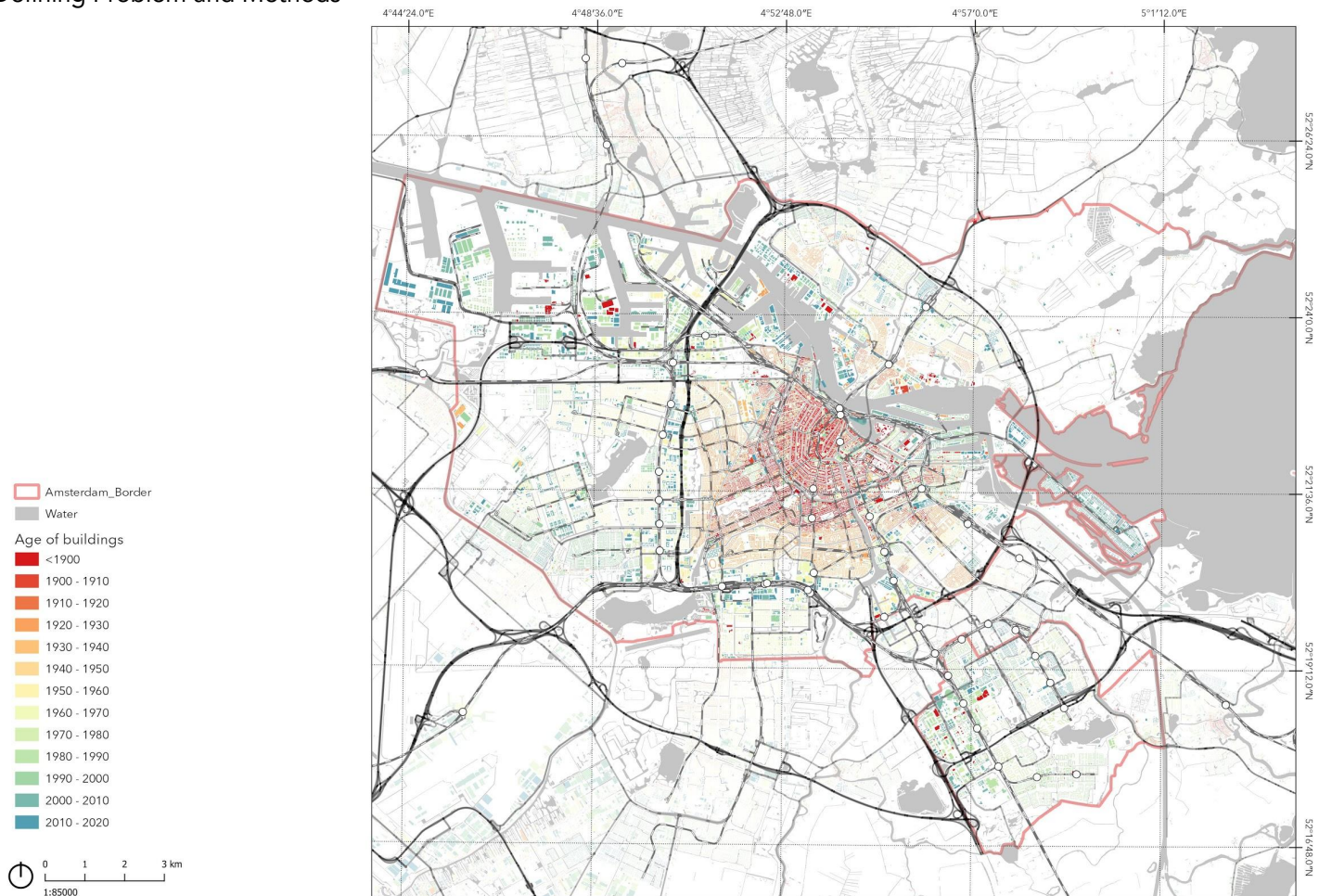
4.4 Green/Blue Networks

Opportunities

Urgencies



1. Defining Problem and Methods



3. Methodology

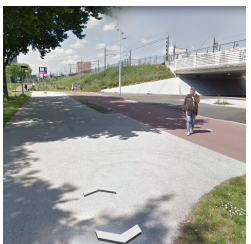
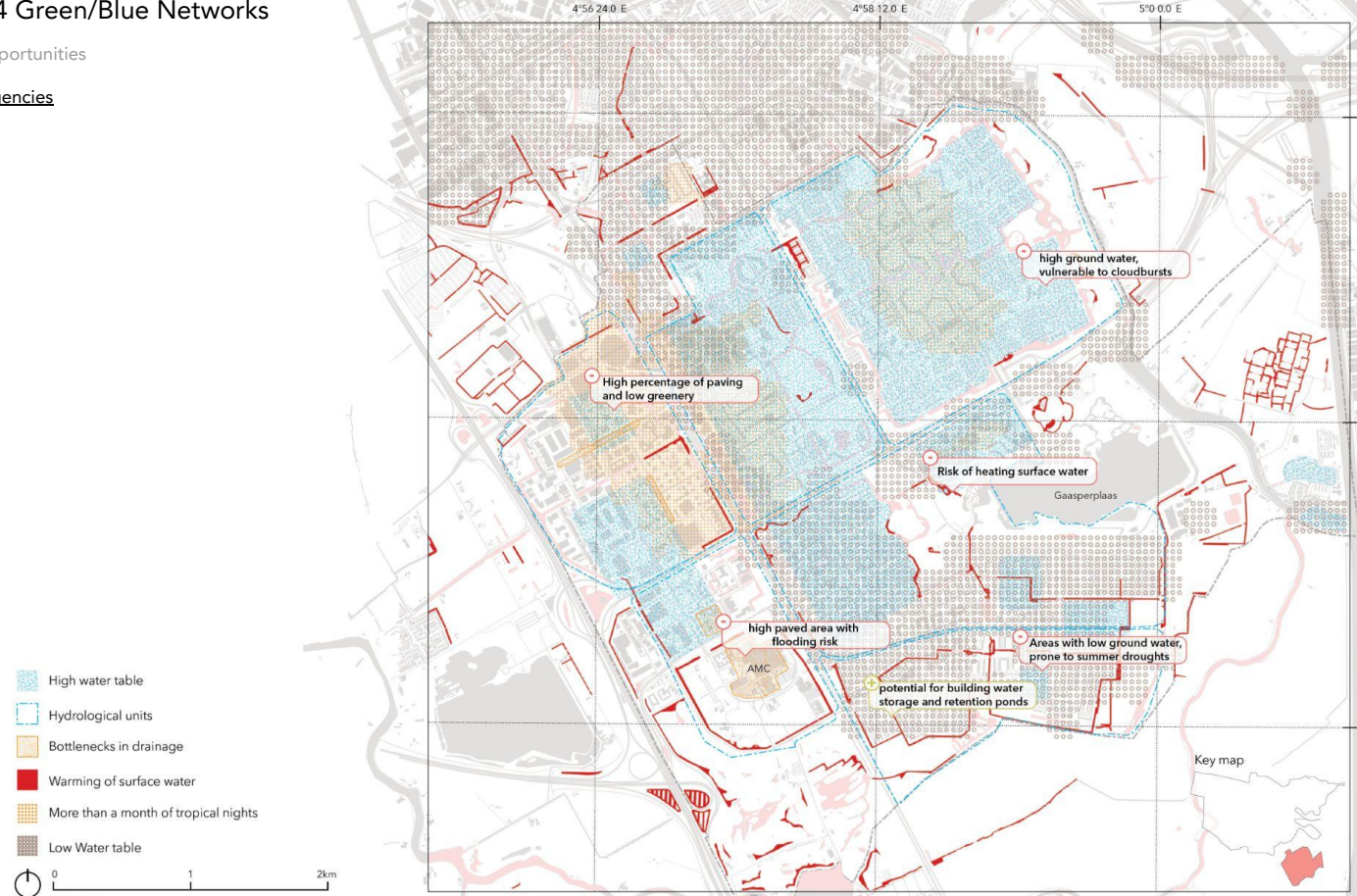
3.3 Theoretical Framework

2. Analysis

2.4 Green/Blue Networks

Opportunities

Urgencies



4. Developing a Pattern Language

4.1 Neighborhood in Focus

