

COMPLEX PROJECTS

AMS MID - City // Amsterdam 2100



Retrofitting Suburbia Zuid-Oost

Station Market

Andy Tsui | 1155031876

CP

Complex Projects









Introduction of AMS Studio

Site Research - Group Vision

Site context

Personal Thematic Research

Social Context for Shopping habits
Market

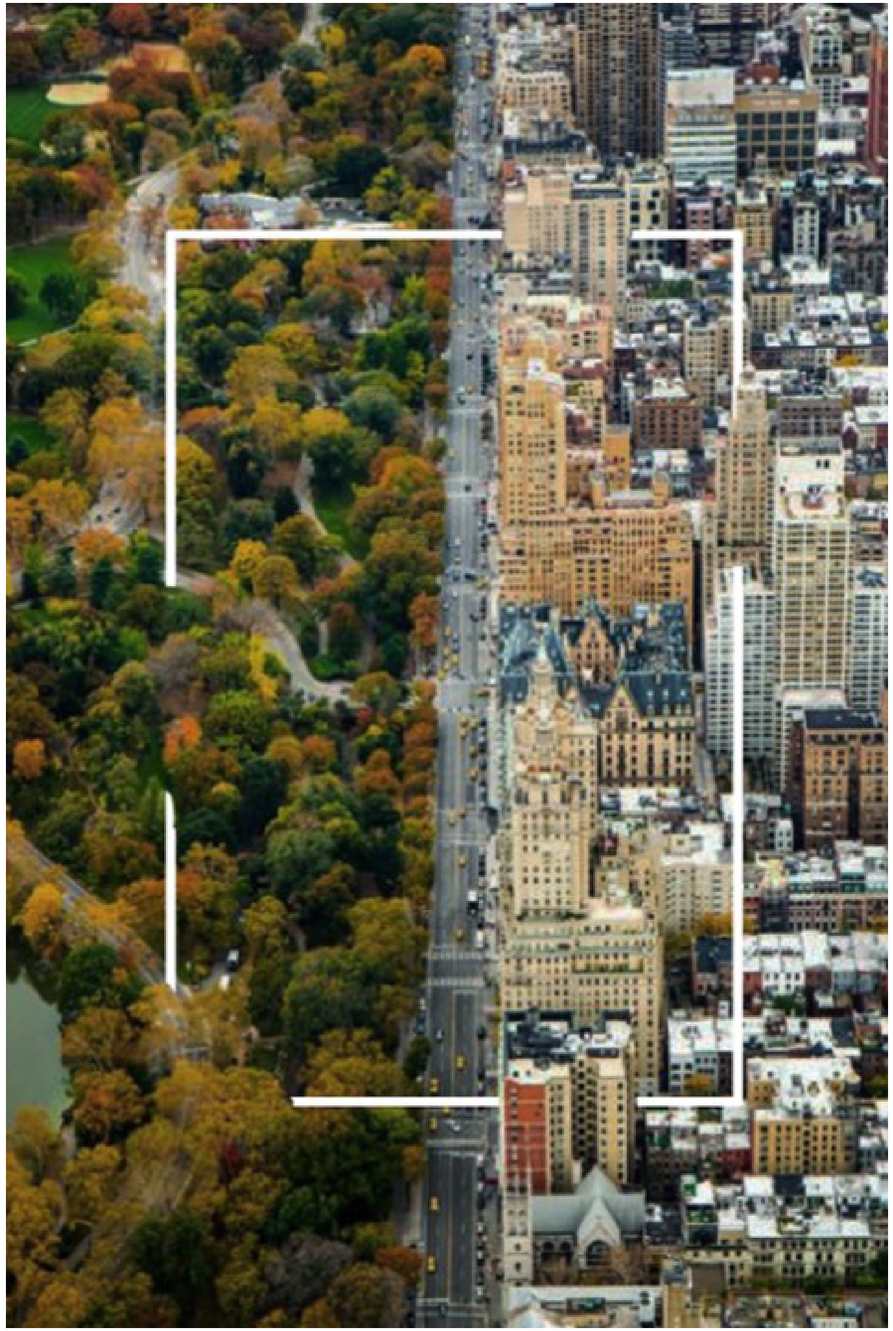
Initial Design Proposal

Massing

Program

Circulation

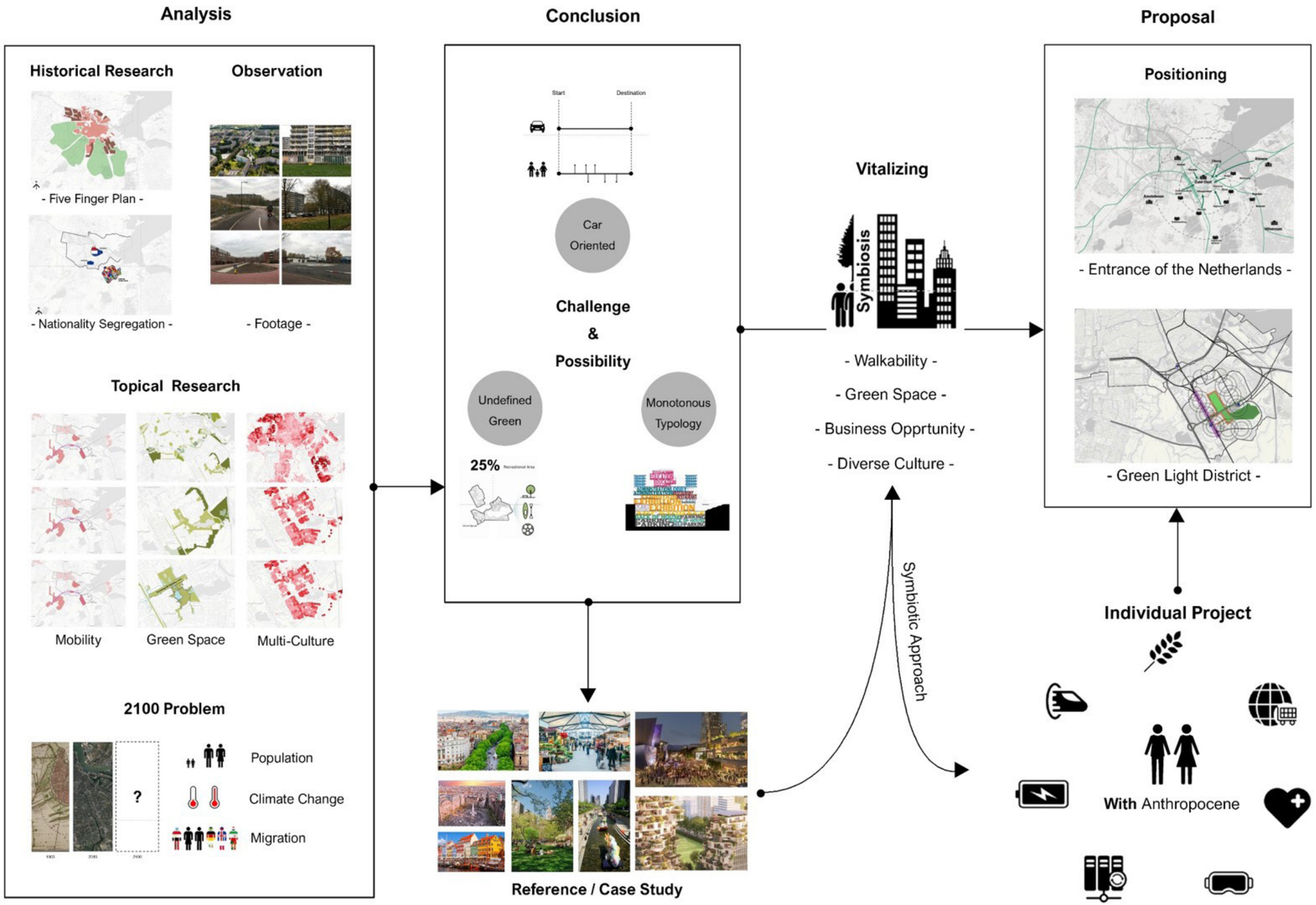
Collages



Introduction


Amsterdam
2100
Centraal
Amstel
Zuid-Oost

Group Vision 2100 -> Individual Fascination




Amsterdam
2100
Centraal
Amstel
Zuid-Oost
Bijlmermeer
Gaasperdam



1903 2019 2100

How would people live in 2100?



2100

Challenge towards 2100

Population
Limited Resources

Climate Change

Migration

Sustainable Urban Development?





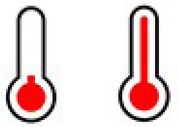


More than just “green….”

Challenge towards 2100



Population
Limited Resources



Climate Change



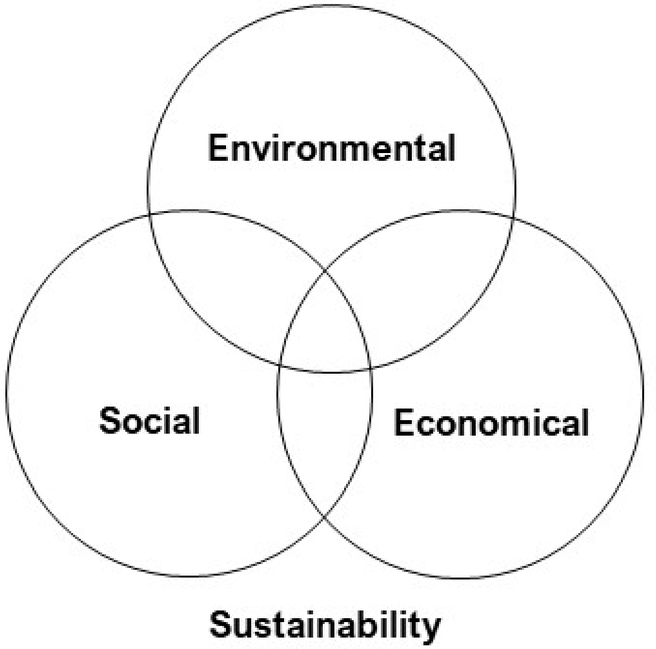
Migration

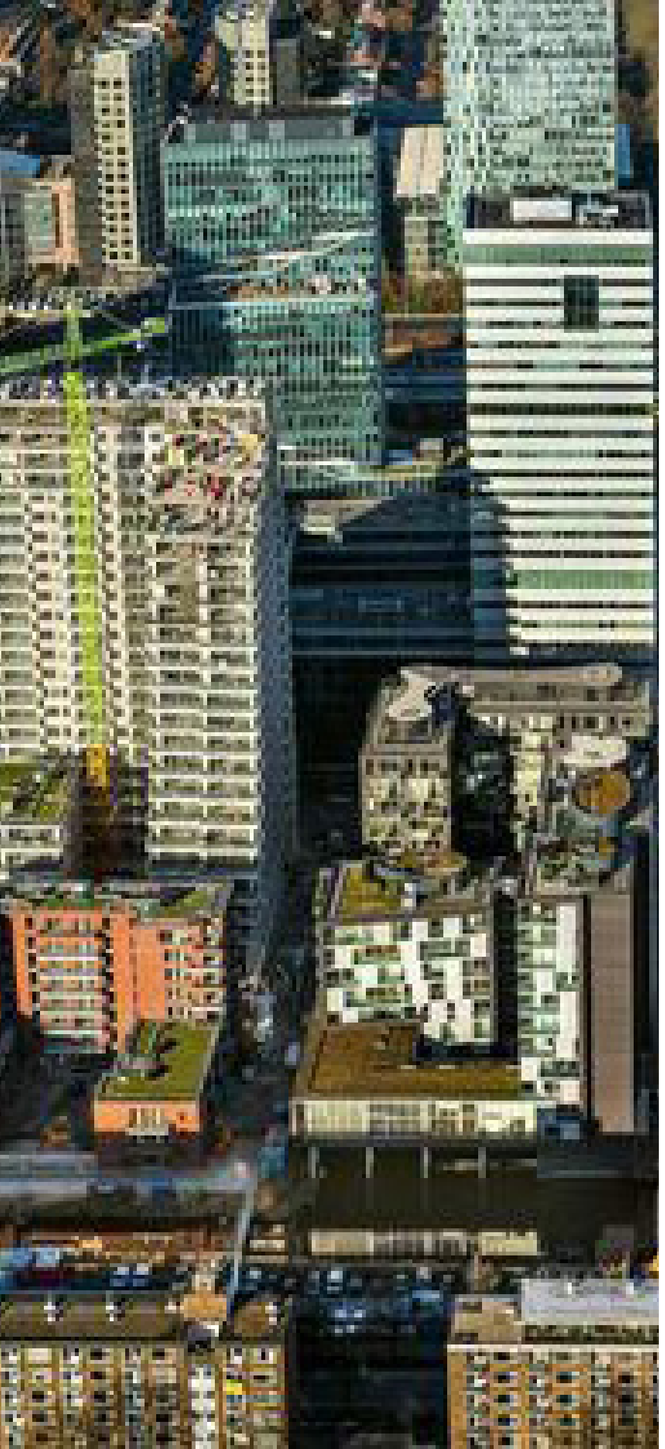
CP

Complex Project

AMS2100

Possibility towards 2100





Densification and Urbanization
Challenge



Population of Amsterdam (City Area)

By 2018

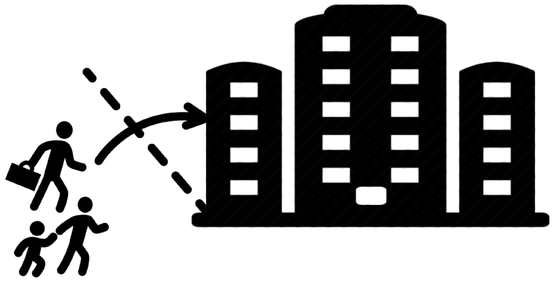
850,000

By 2050

1,300,000

By 2100

1,560,000 (~Doubled)



By 2018,

50%
of world population will live in cities.

By 2050,

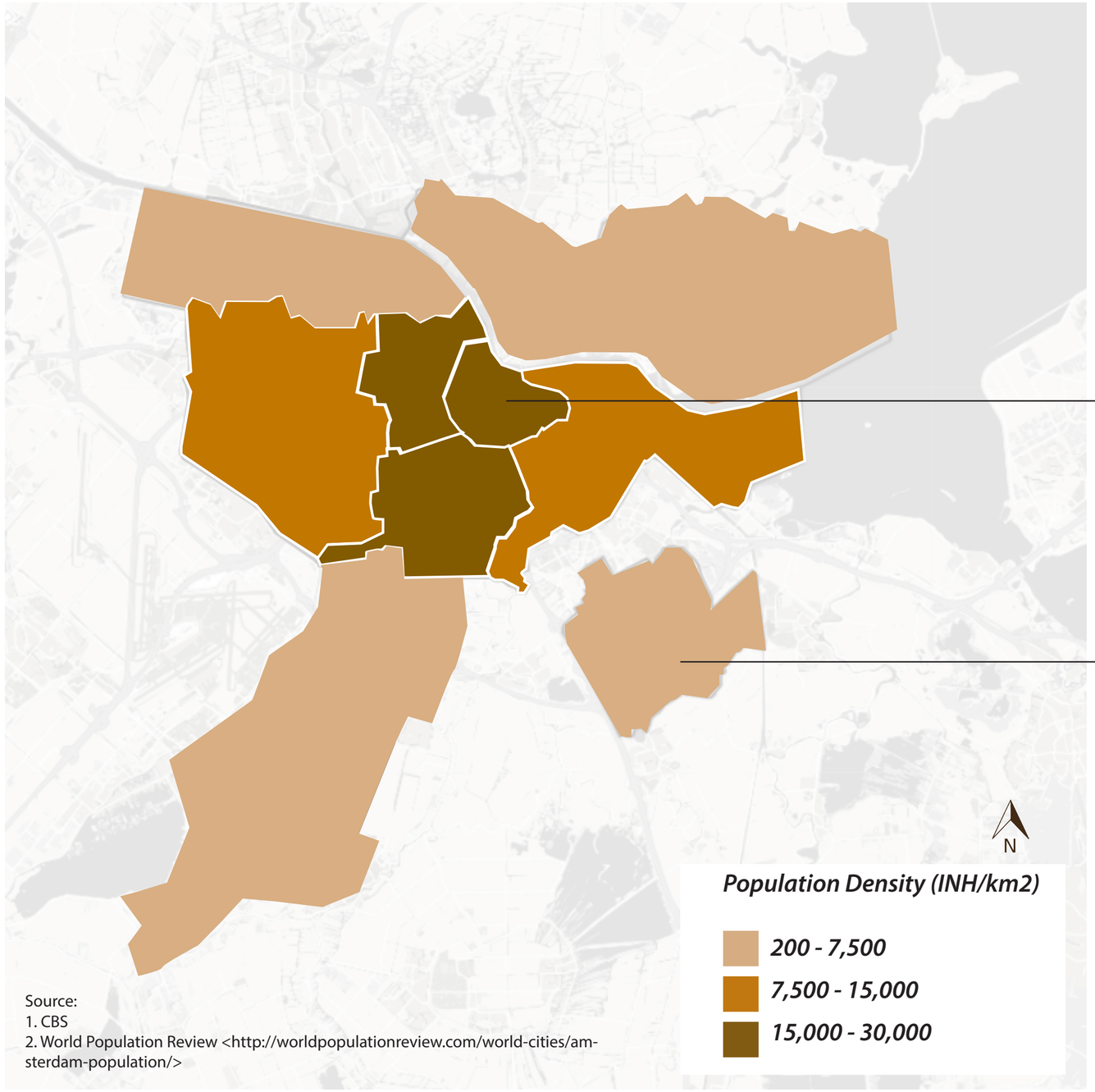
70%
of world population will live in cities.

By 2100,

80%
of world population will live in cities.

Share of Densification by Zuid-Oost

Challenge





Amsterdam Centraal



Zuid-Oost

The centre ***3 times*** as dense as Zuid-Oost...

Source:
1. CBS
2. World Population Review <http://worldpopulationreview.com/world-cities/amsterdam-population/>

Amsterdam
2100 Challenge



Ghetto of Amsterdam?
Problematic District?

Bijlmermeer

Zuid-Oost

Gaasperdam



Analysis of Zuid-Oost

Past

Present

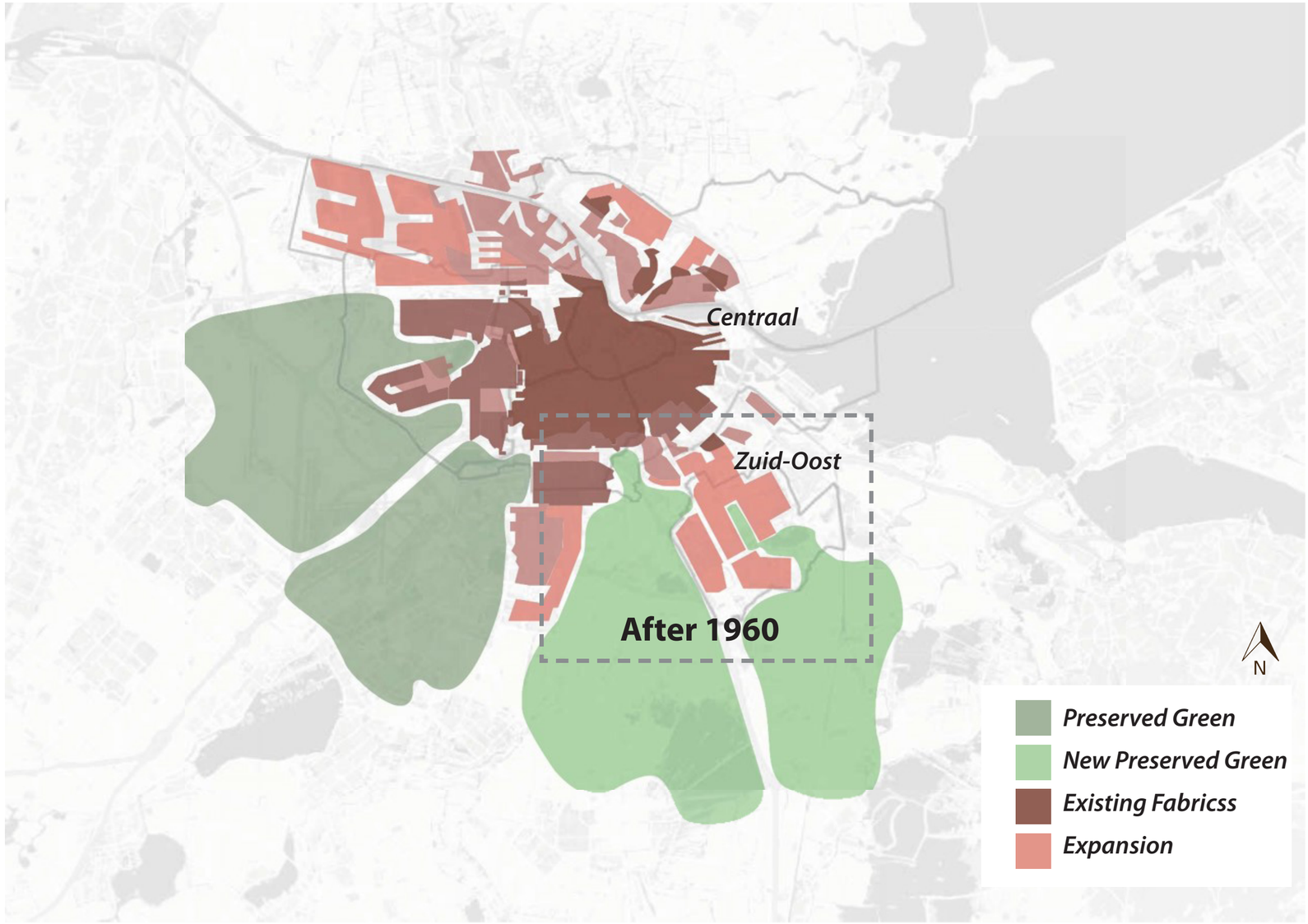
- Mobility
- Social
- Land Use
- Green

Past



Finger's Plan

Expansion Plan of Amsterdam





Controlling Urban Sprawl

Van Eesteren's Finger plan (General Expansion Plan) is a basic principle of expansion of Amsterdam. The idea is to control urban expansion to secure green area while increasing accessibility to green space and Urban Area.

| 1930s |



The Radiant City

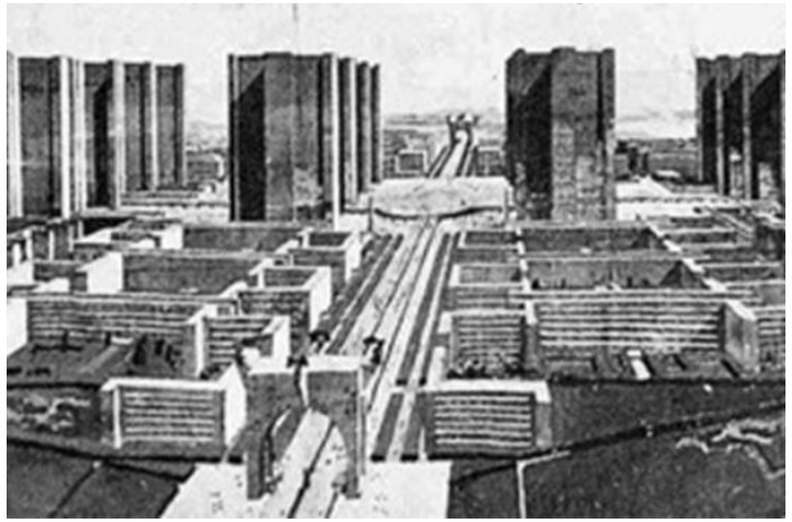
| 1960s |



Bijlmermeer

City for Cars





The Radiant City





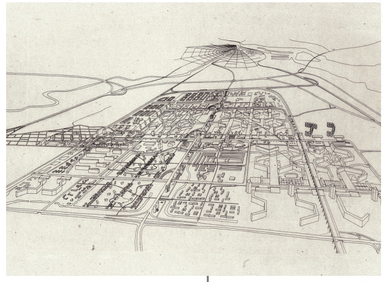
Bijlmermeer

Segregation

Transition

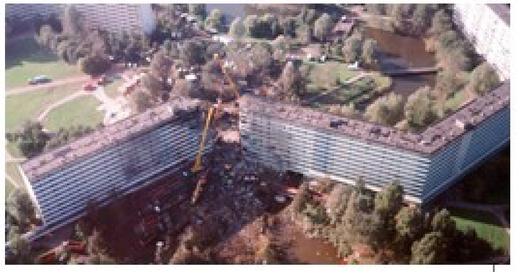
New Identity

Bijlmermeer Project



1968

El Al Flight 1862



1992





Investment in Urban Renewal of Zuid-Oost



Polder -> Farmland

1960s

2007

1996 2012 2016 2018 2019 ? 2100

Independence 1975

First Metro to Centraal 1977

First Housing in Gaasperdam Completed 1980



Marked as Problematic Area by the municipality 2007

Vitalization Investment

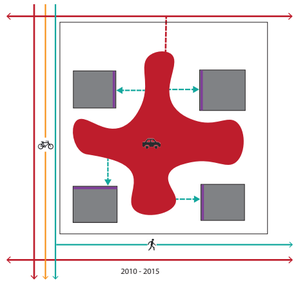
- Amsterdam Arena: 1996
- Renovated Bijlmer Arena Station: 2007
- Ziggo Dome: 2012
- AFAS Live: 2016
- MVRDV's Masterplan : 2018

| Past, Present and 2100 |

Urban Renewal

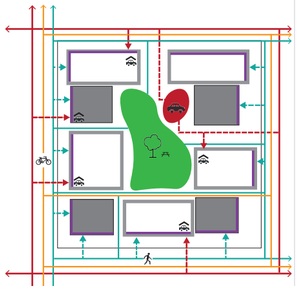
2017

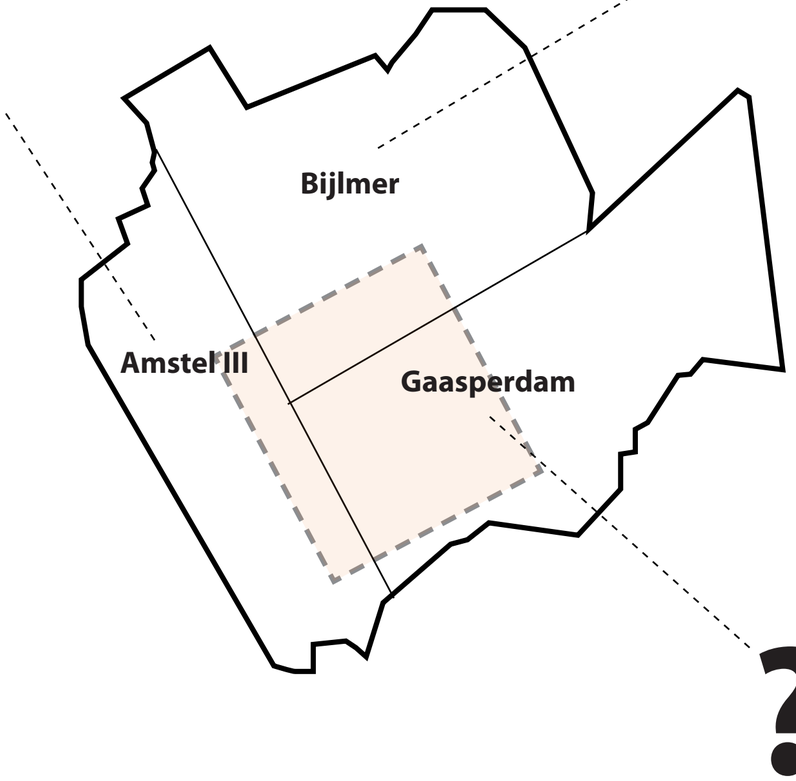




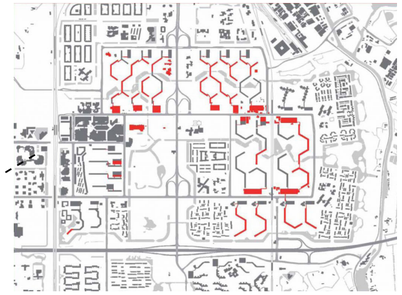
2025







1987





2017





Present

Gaasperdam | Zuid-Oost

Site Characteristics



1



Abundant green
Dominating car infrastructure
Long strip collective housing
No street life



2



3



4

Car-dominated City

Current Situation













Car-oriented

- Encourage driving
- Unsustainable mobilitiy
- Unwalkable
- No street life
- No meetings/encouter-ing of people







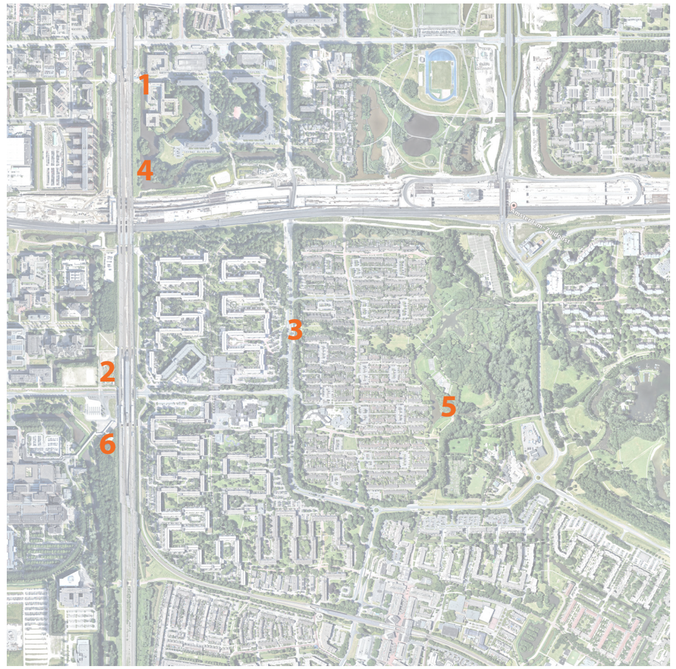



Bad Quality of Urban Green

Current Situation

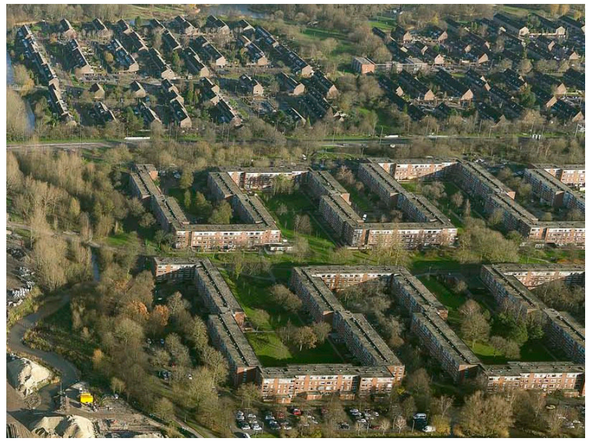
Inactivated Green

- Open space not in human scale
- Not comfortable to stay
- Feeling unsafe at night
- Border separations







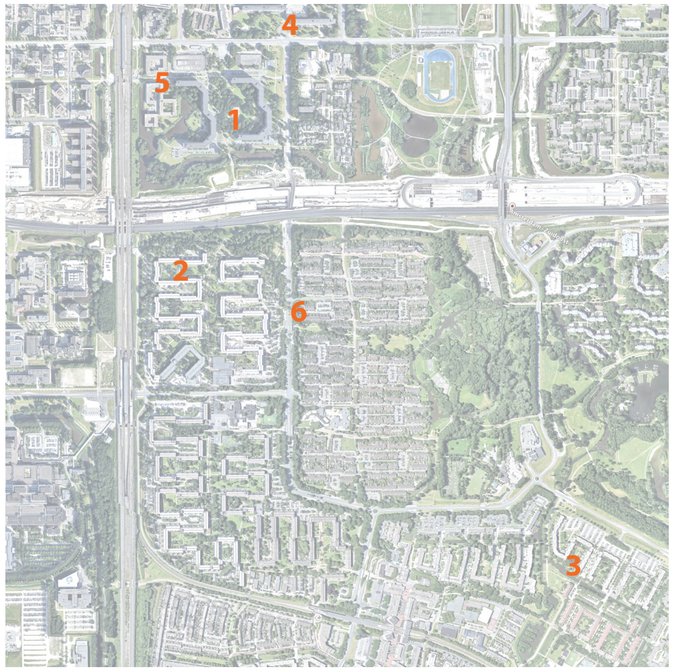



Monotonous Neighbourhood

Current Situation

Mono-functionality

- No active street level
- Neighbourhood segregation
- Not self-sustaining
- Lacking of meeting point/ node









Walkability?

Meaningful urban green space?

Mixed and multi-function?
Self-sustaining?







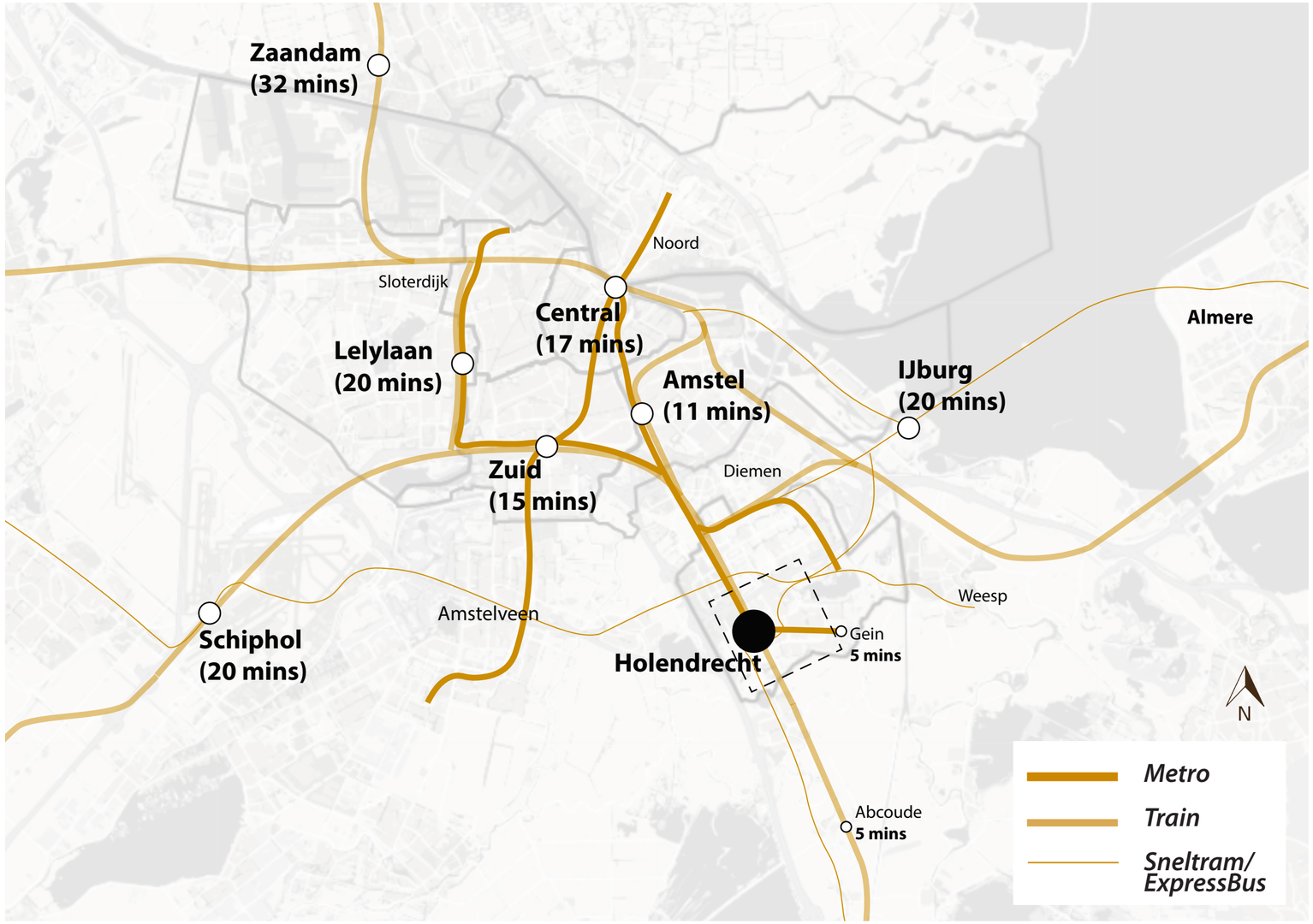
| Livable city |

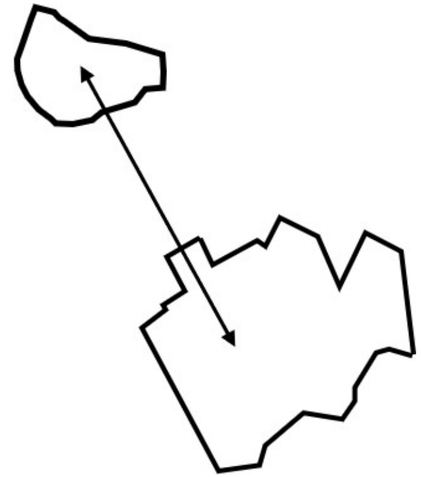
| Zuid-Oost |

Analysis - Mobility

Connectivity with Other Districts

Mobility



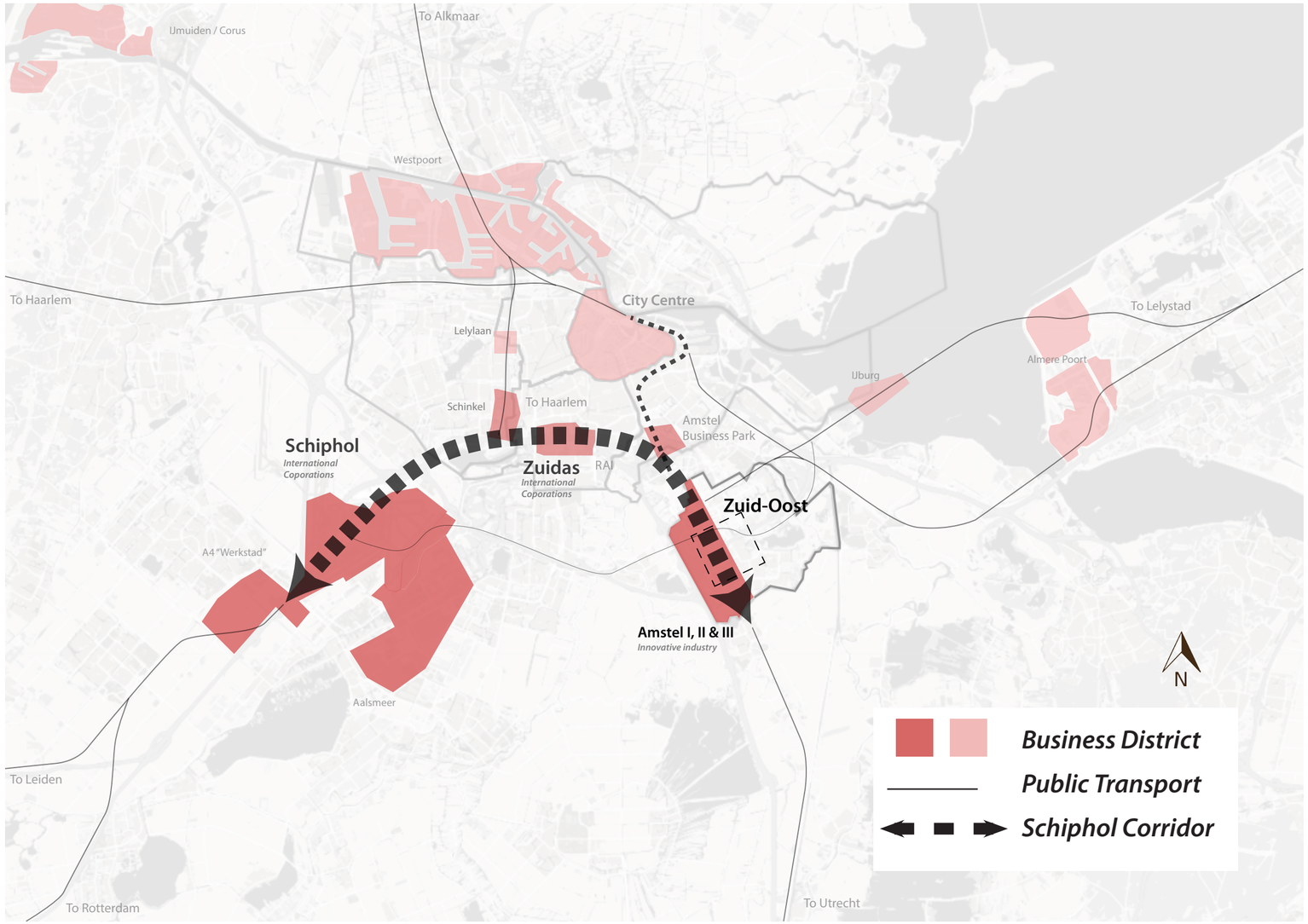


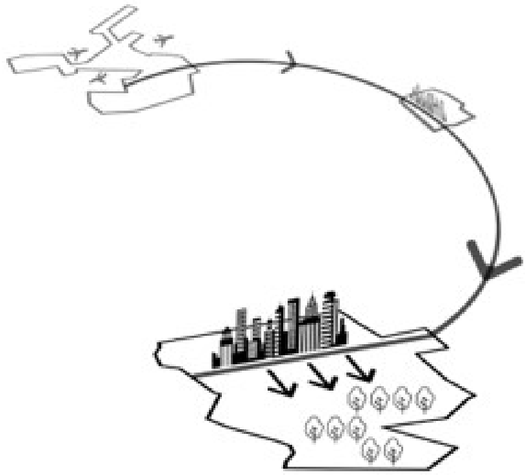
Connectivity & Accessibility to the Centre

Zuid-Oost has been strategic outpost of Amsterdam, multiple infrastructures including motorways, railways and metro have been connected between Amsterdam Center and Zuid-oost

Planned Schiphol Corridor

Mobility



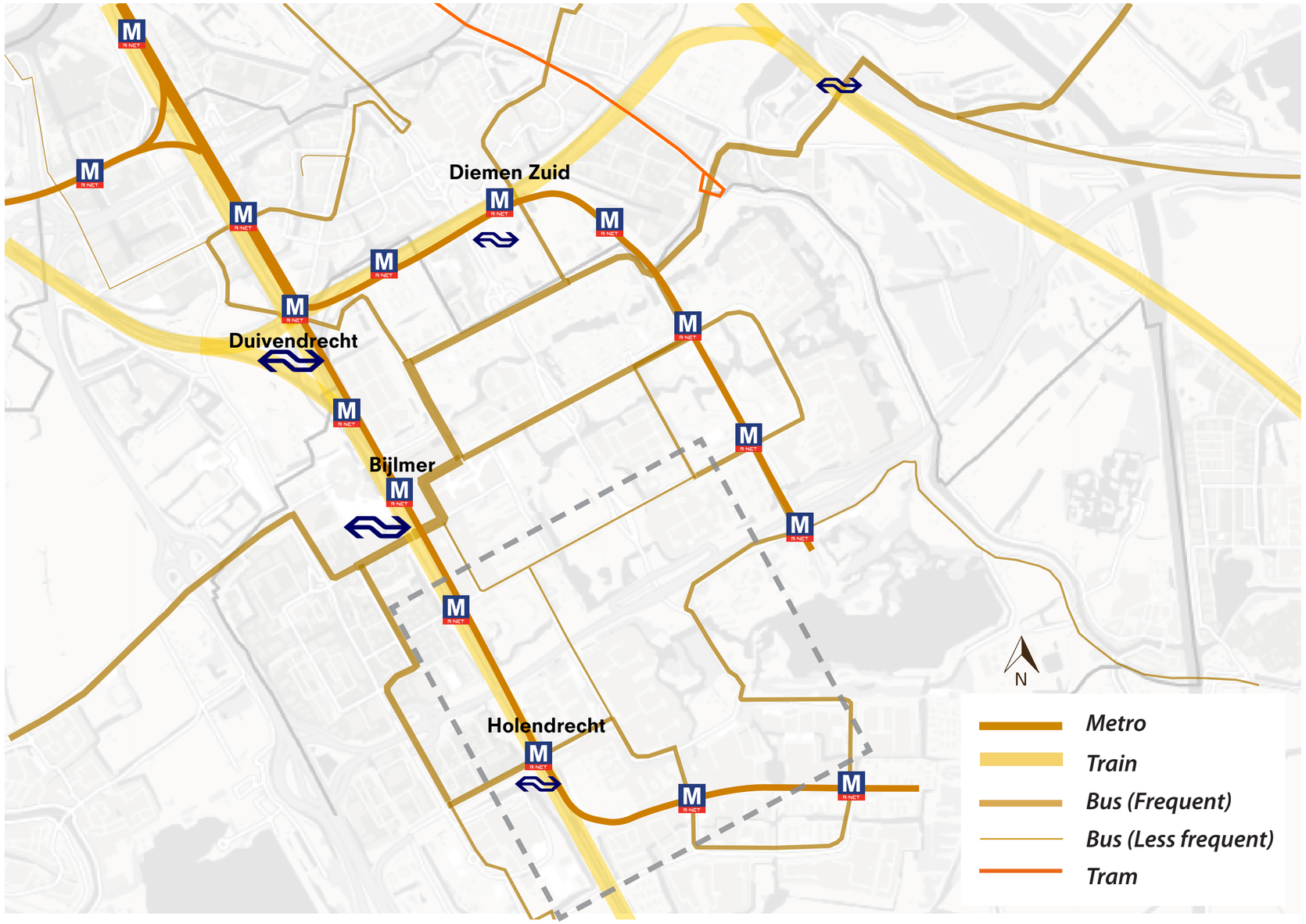


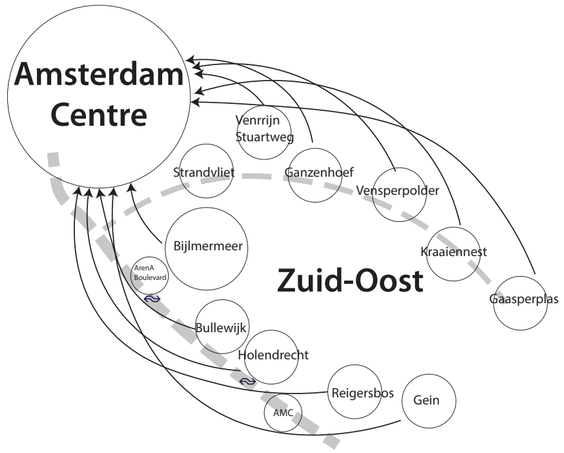
Schiphol Corridor planned by the municipality

With connections between the airport and Amsterdam Centre, Zuid-oost is one of the promising region for further development in future in terms of innovative business and as a livable city.

Local Transport Network

Mobility

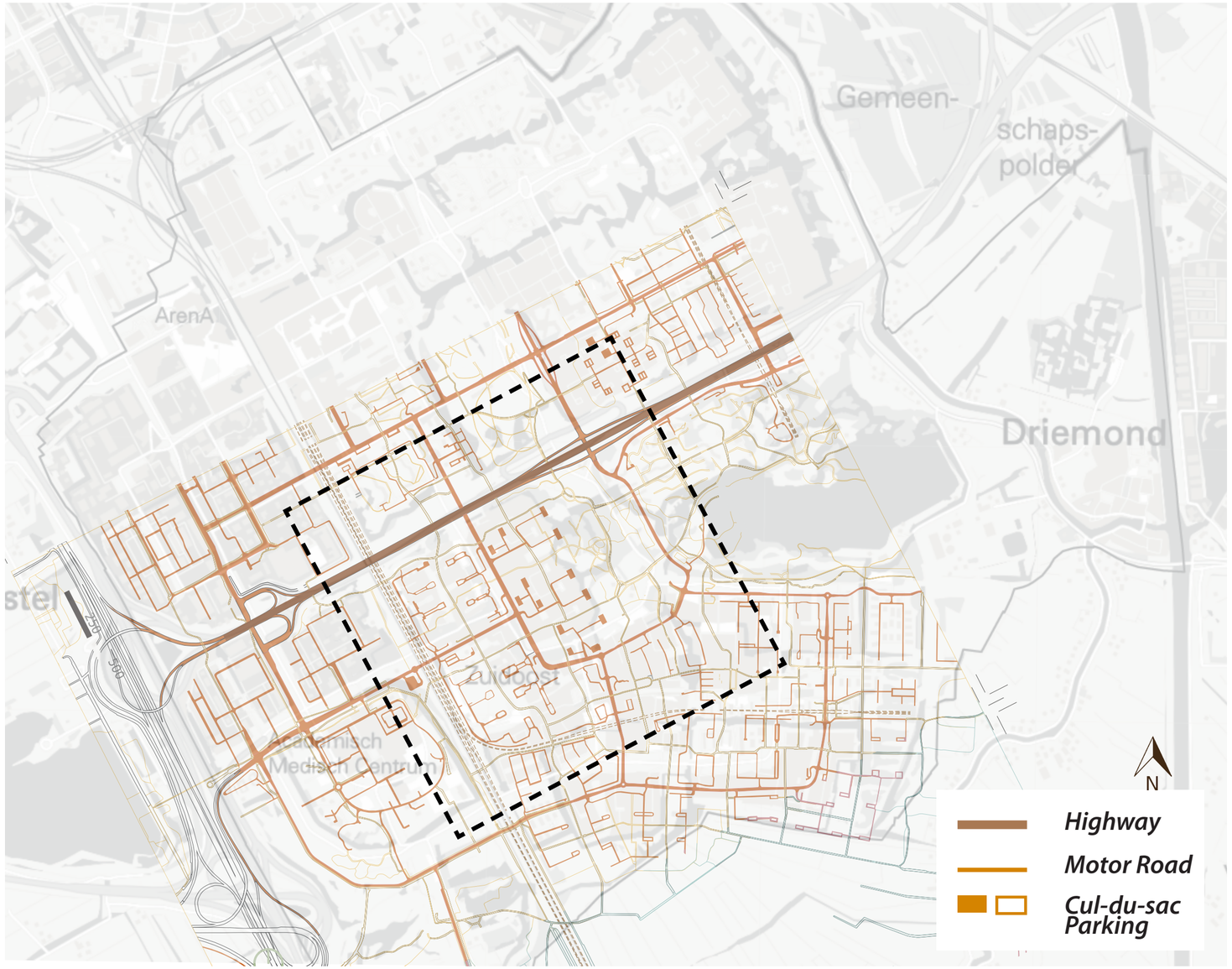


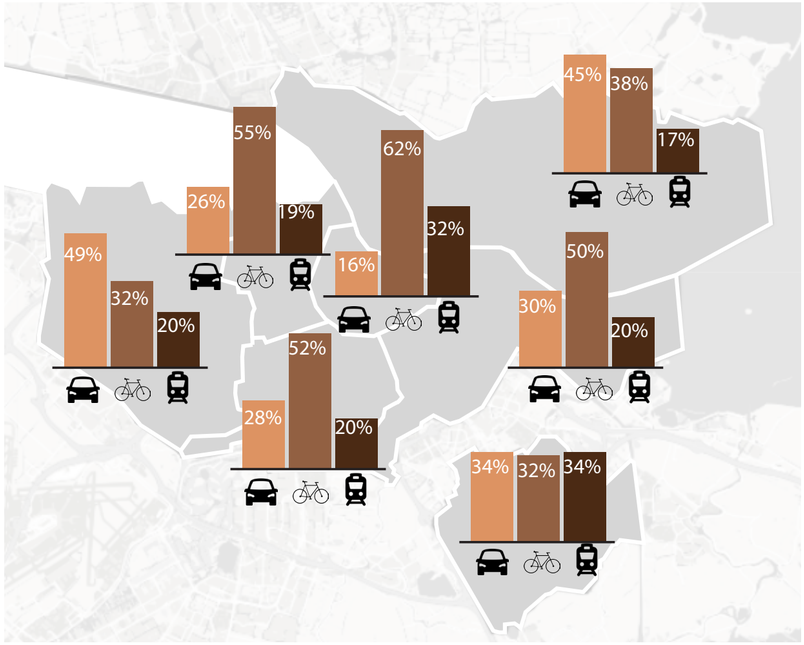


Emphasis on Connecting the Centre

In the planning of the public transport system of Zuid-Oost, more emphasis is put on connections to the centre than local connections within the district

Car-oriented City
Mobility





Higher % Usage of Car,
Lower % Usage of Bike in Zuid-Oost

Analysis - Green

Share of Green

Green

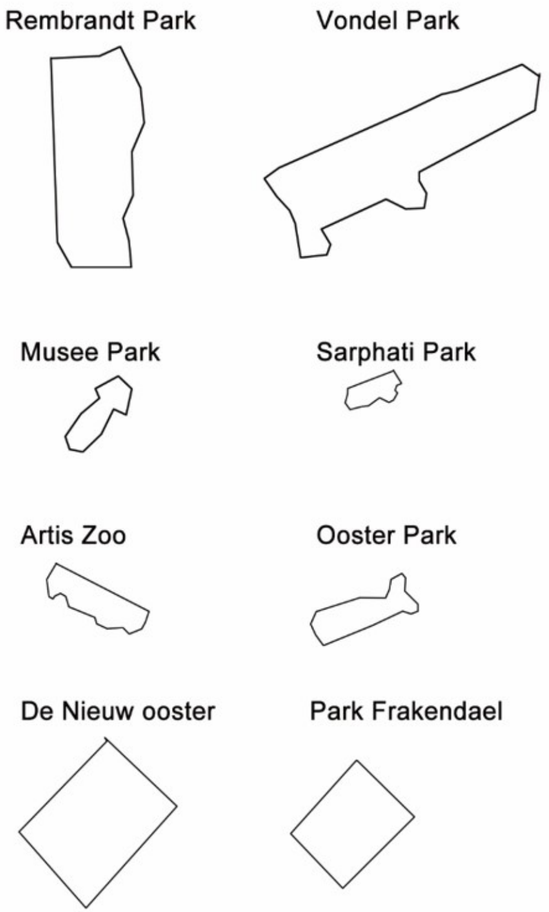




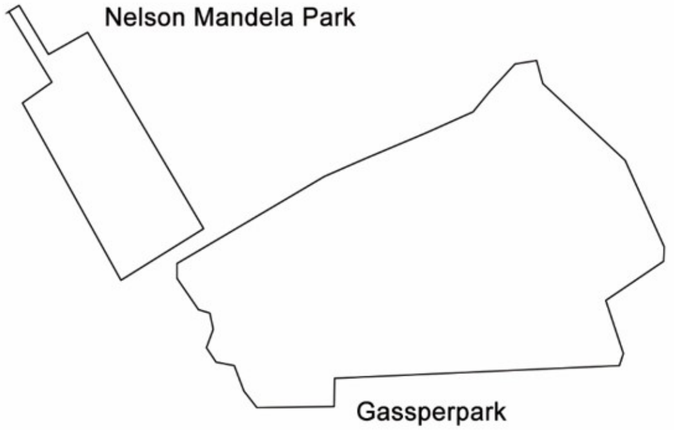
Centraal/Amstel **Zuid-Oost**

In Zuid-oost, compared to other region in the Amsterdam, it has immense amount of greenery space shared per inhabitant.

Comparison of the Size of the Green Spaces In Amsterdam



Amsterdam Centre / Amstel

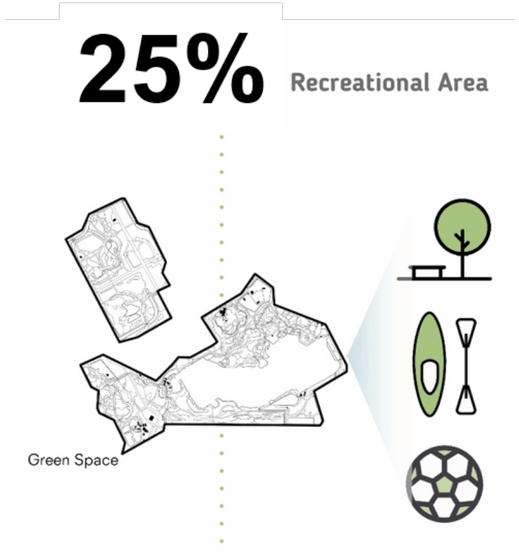


Amsterdam Zuid-oost

Inactivated Green

Green

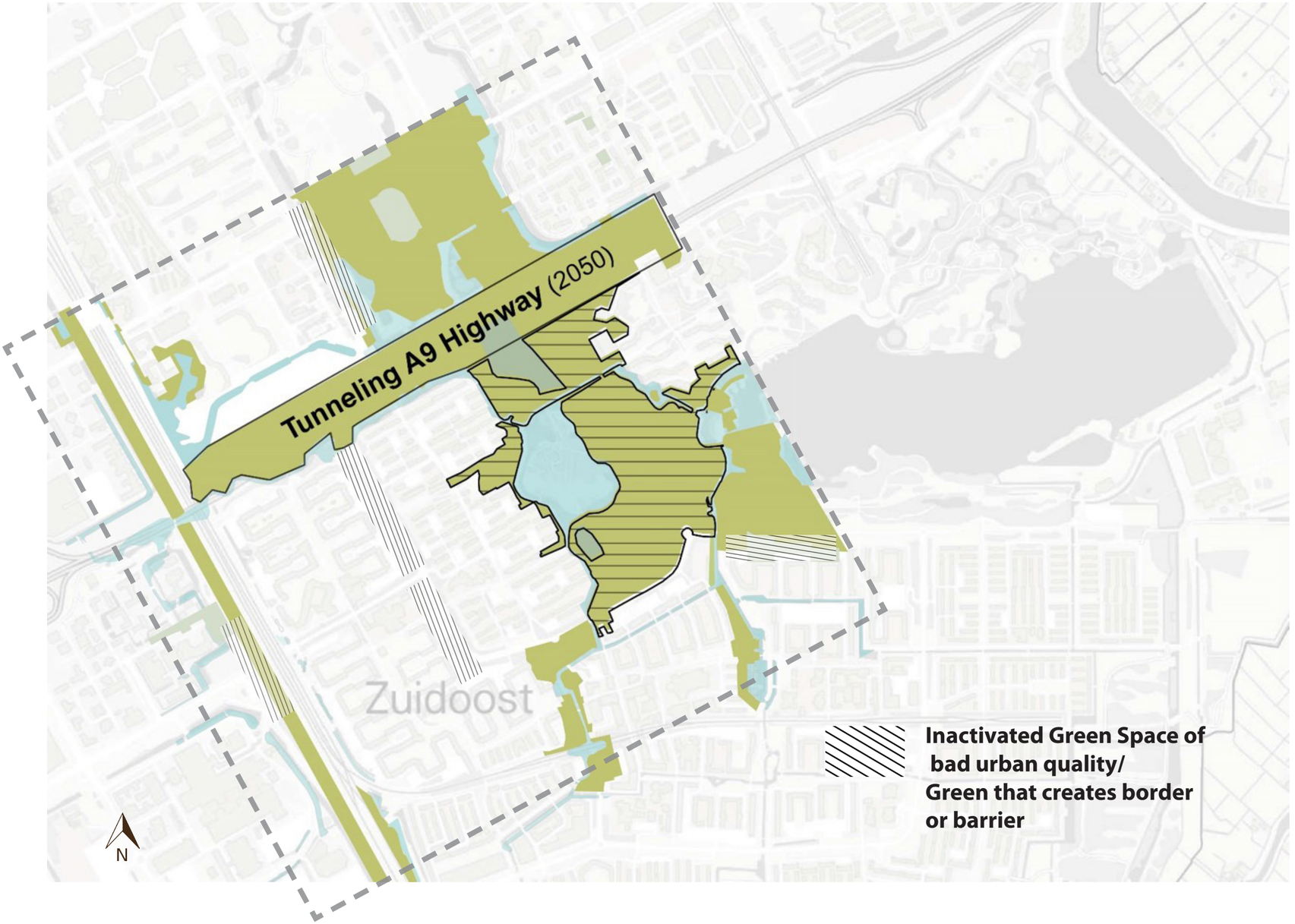




25% of Zuid-oost are being used as recreational Area including Mandela Park and Gaasperplas park. These areas are already part of city life and contributing to make city livable. However, there are still problem in green space.

Inactivated Green

Green

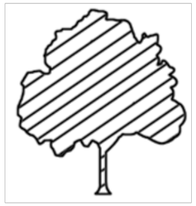


Inactivated Green Space of bad urban quality/ Green that creates border or barrier

New Green Area



Inactivated Green Area



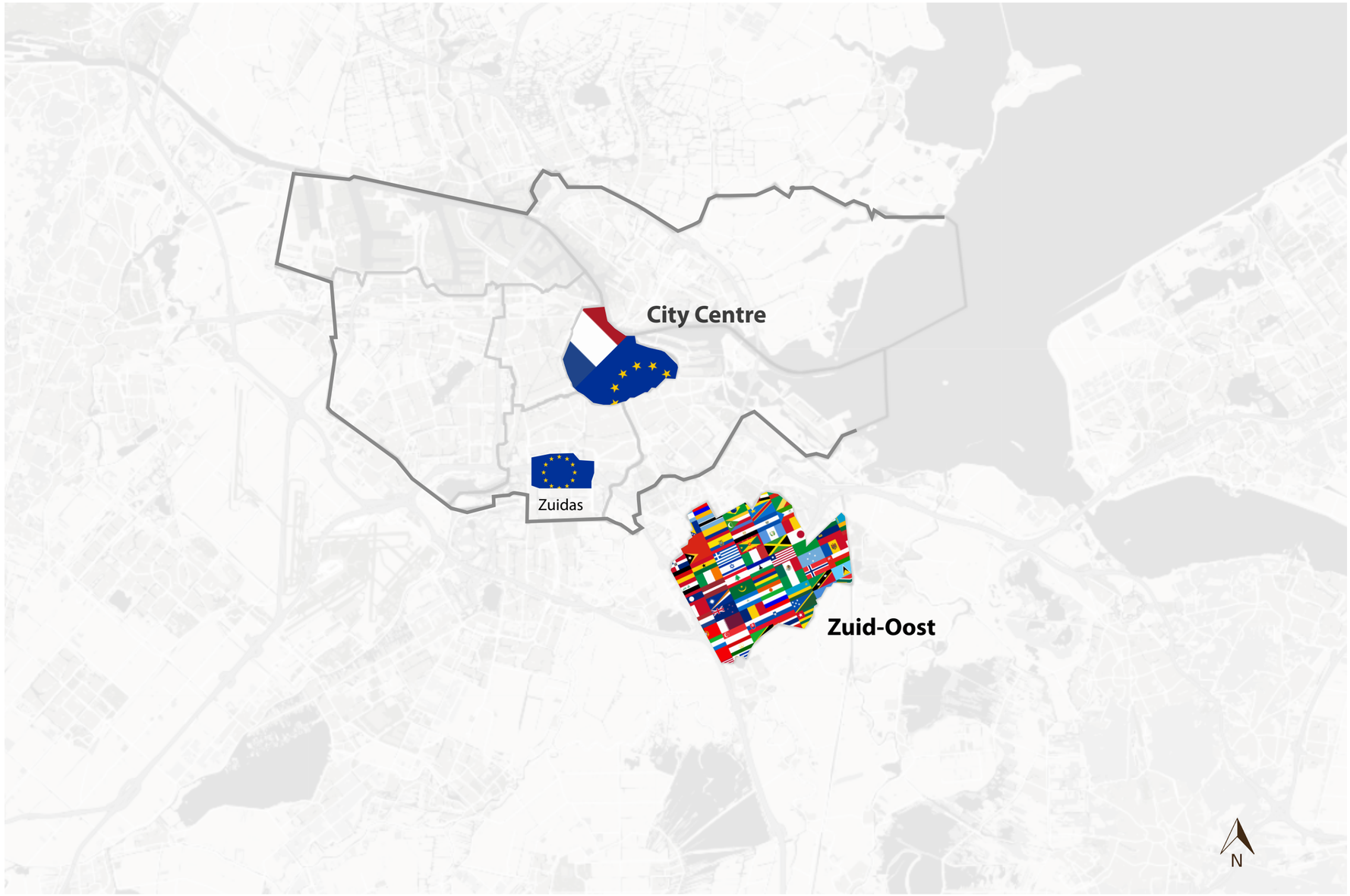
Although the city has a lot of green space, they are not utilized. Inactivated green space where you feel uncomfortable to stay since either they are not in human scale, not well managed or indeed forms border between neighbourhood.

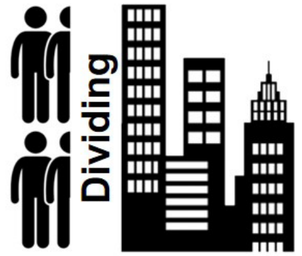
Do we need just "green" or "green" that contributes to the built environment?

Analysis - Social

Social Segregation

Social



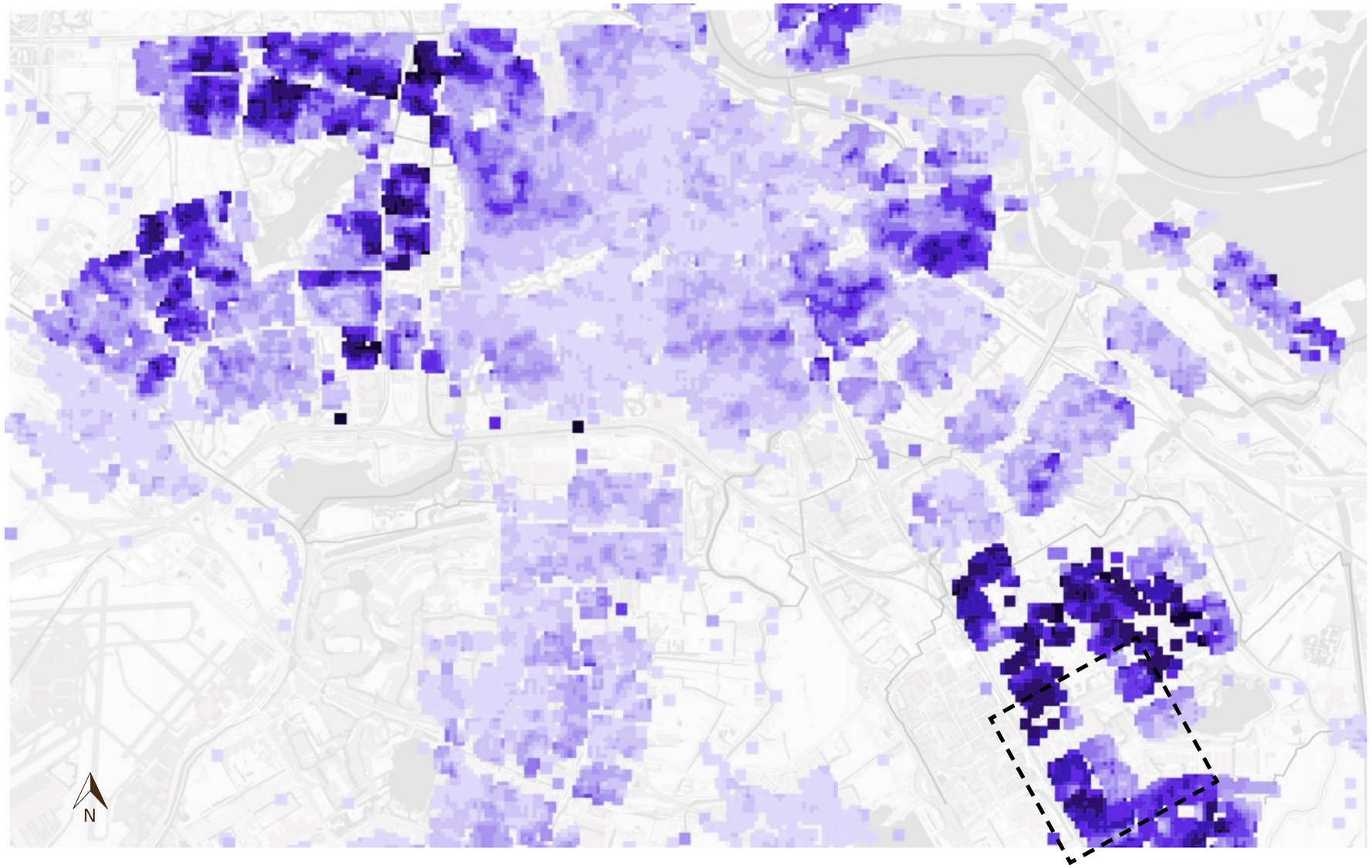


Social Segregation

In bigger scale, Amsterdam has high proportion of international population but in terms of small scale the segregation between Dutch and migrants is clear.

Non-Western Immigrants

Social





Social Segregation

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Residents in Neighbourhood



Income Disparity
Social





Typological Segregation

The segregation that is shown in nationalities and land price also can be found in different typology. Most of low-educated people are living in high-rising type of housing. While Dutch people living in mid, low rising housing type

Annual Income per person

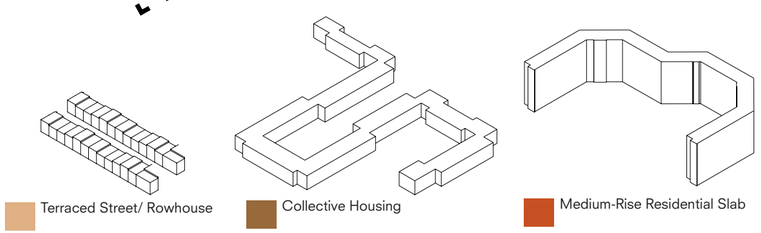
- less than 10 000
- 10 000 - 20 000
- 20 000 - 30 000
- 30 000 - 40 000
- 40 000 - 50 000
- 50 000 - 100 000
- More than 100 000

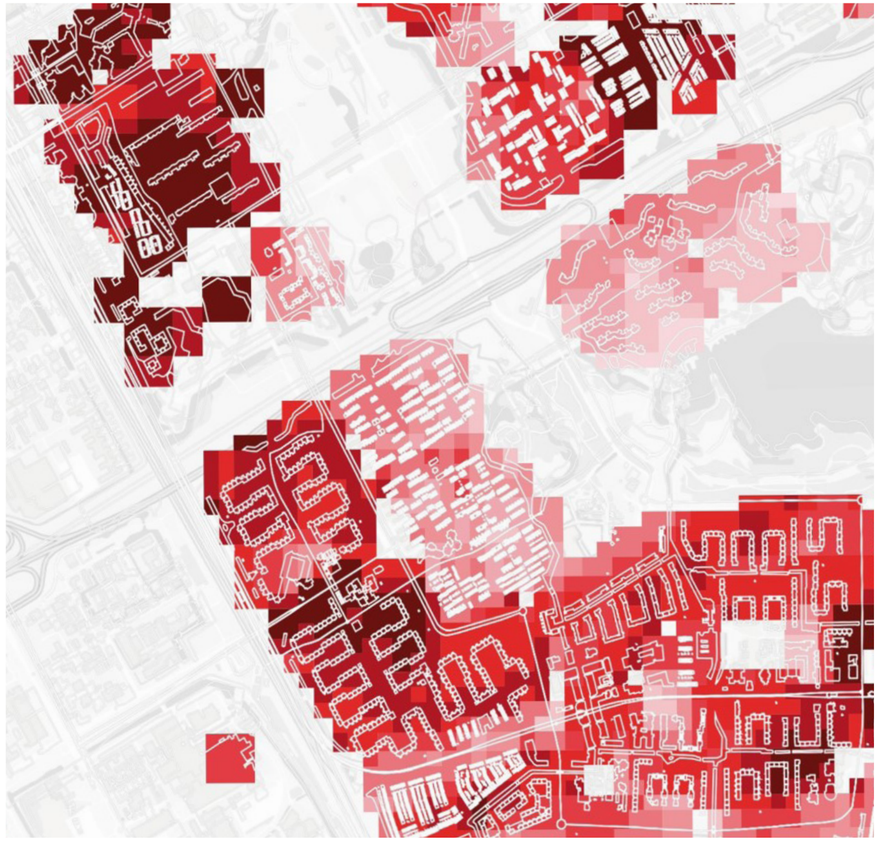
Analysis - Land Use

Housing Typology
Land Use



Housing Typology





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Typological Segregation

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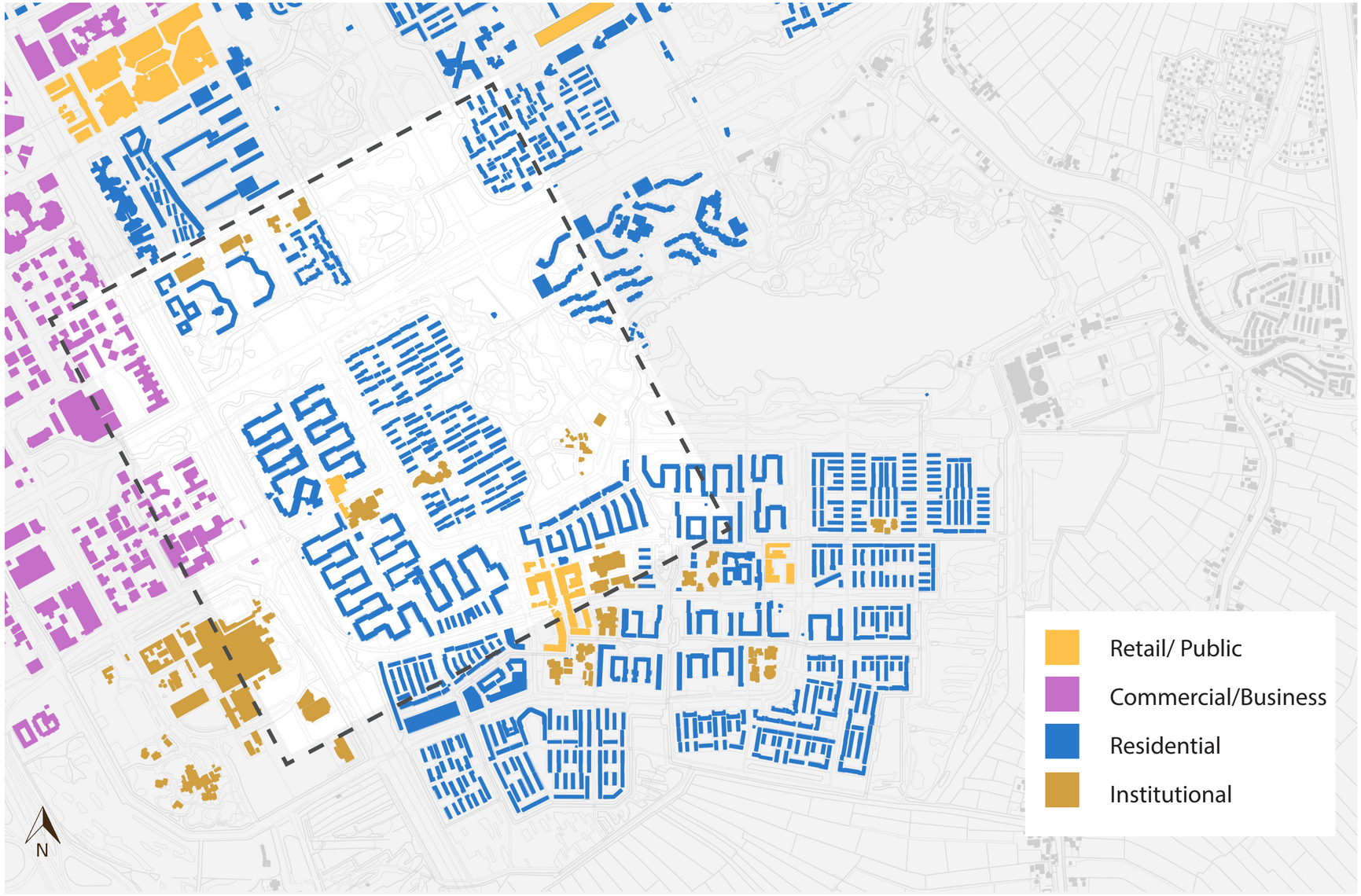
Planning
Land Use



KANTOOR HOUSE OFFICE
HUIS HOUSE
SHOP WINKEL WINKEL SHOP

Monotone neighbourhood

The neighbourhood is montonous that different functions of city are planned in a big patch together and each neighbourhood is separated by motorways and nature.

Retail/ Recreation Use

Land Use



HUIS HOUSE
KANTOOR OFFICE
WINKEL SHOP

Lack of public recreation

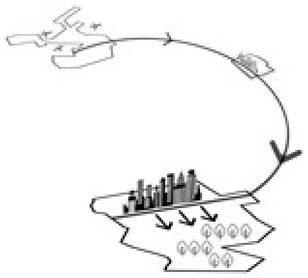
The neighbourhood Gaasperdam lacks public recreation apart from green park.

- Retail
- Market
- Event/Festival
- Sports Field/Centre
- Community/Activity Centre

Summary of Analysis / Problem

Mobility Analysis

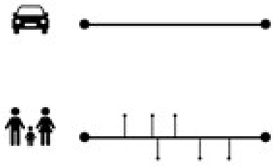
Unwalkable City



Business Opportunity



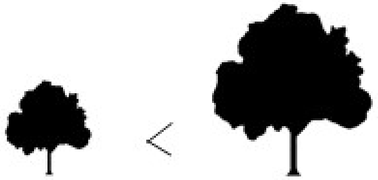
Connectivity / Accessibility



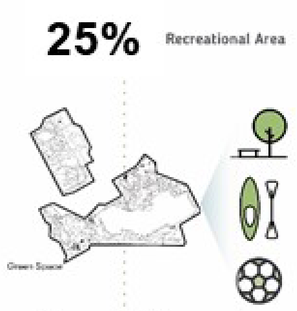
Walkability

Green Space Analysis

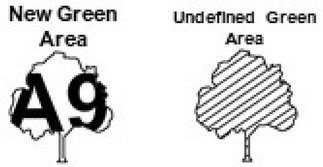
Inactivated Green



Immense Green Area



Usage of Green Area

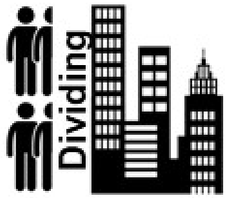


Challenge of Green Area

Societal Analysis

Monofunctional City

Social Segregation



Social Segregation



Gentrification



Typological Segregation

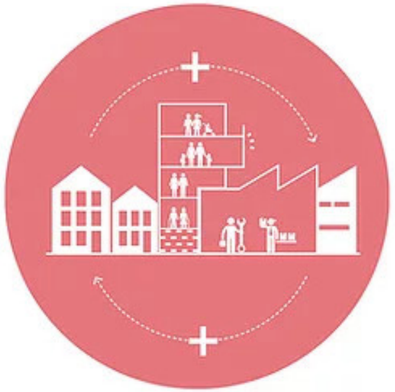
| Possibility & Challenge |



Vision for Densification



Innovative District and
New Job Opportunties



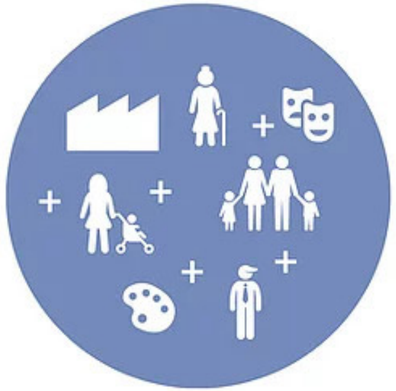
Vibrant and Mixed City Life
Self-Sustaining City



Healthy and Green Urban
Environment



Sustainable Mobility and
New Connections



Social Sustainability -
Social inclusive and cultural diverse
environment, Self-Supporting City

Strategy I - Densification around Transport Hubs



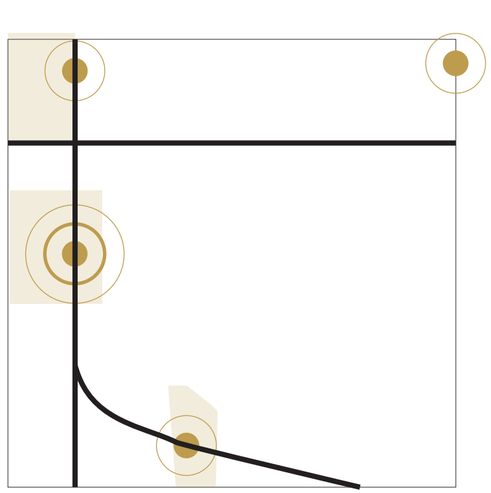




Sustainable Mobility and New Connections



Innovative District and New Job Opportunties



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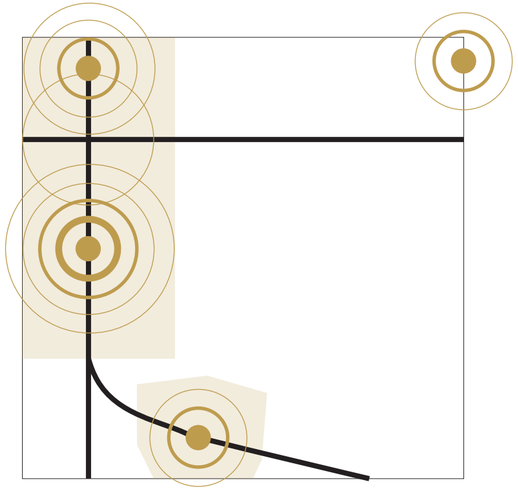


After

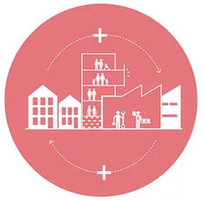
Strategy II - Densification around central park



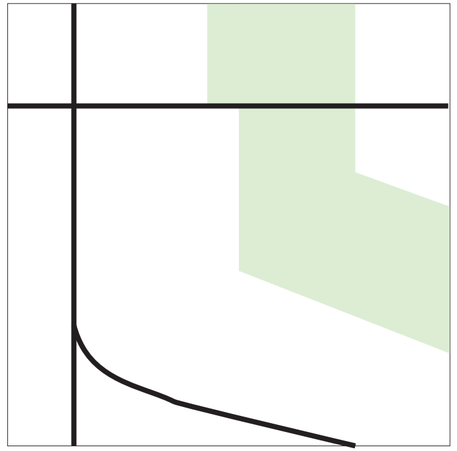




Healthy and Green Urban Environment



Vibrant and Mixed City Life



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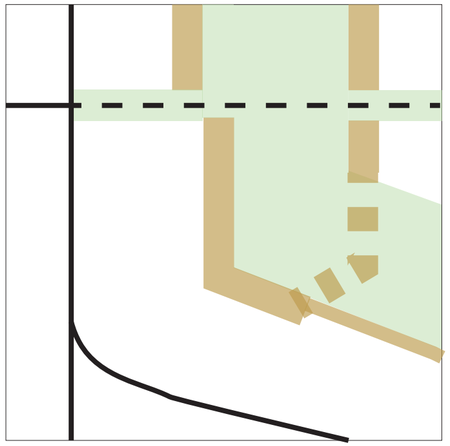


After

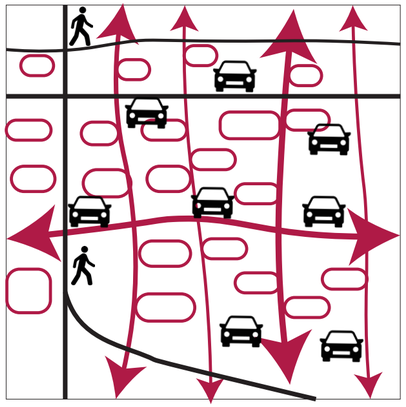
Strategy III - Public transit-Oriented Walkable City





Sustainable Mobility and New Connections

Healthy and Green Urban Environment



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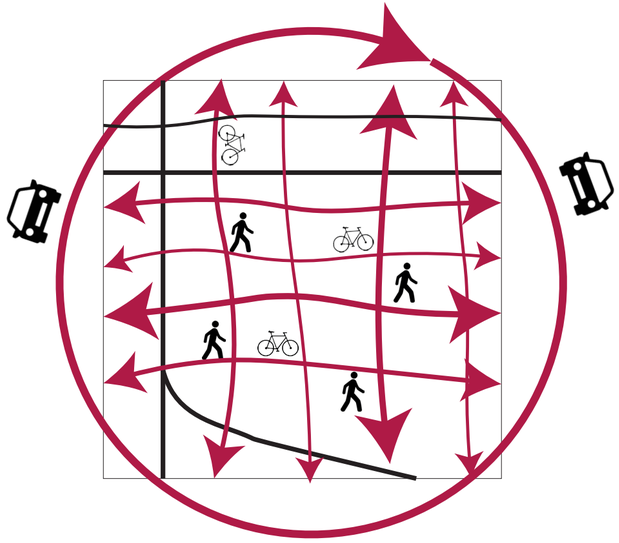
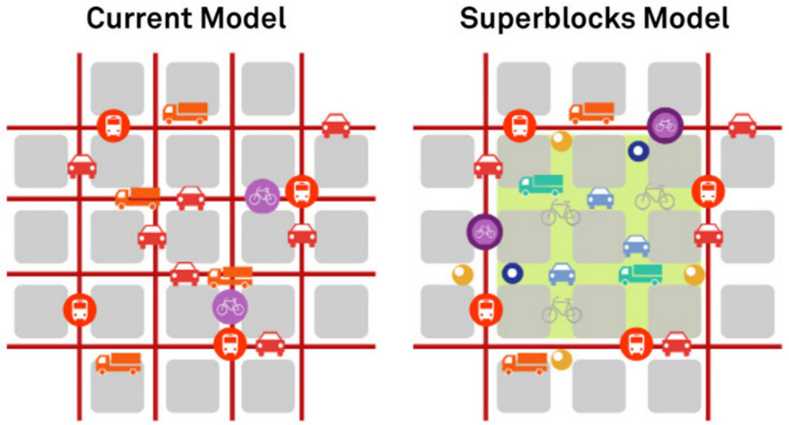


After

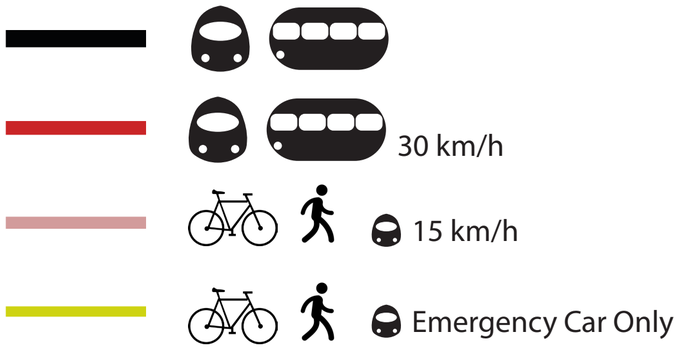
Strategy III - Public transit-Oriented Walkable City

Superblock



Superblock Model

Priority of road use is given to pedestrian in the desnse net-work. Certain cars can still enter but with limited speed.







Strategy III - Public transit-Oriented Walkable City

Public Sharing Pod



Current Situation



Automatic Public Sharing POD System

Automatic Public Sharing POD parking

Ground level car parking



1 sharing POD(Car)
replace
10 private cars.

80% Fewer
Parking Space needed

Strategy IV - All-around, mixed and diverse typolgies and land use, Active street level



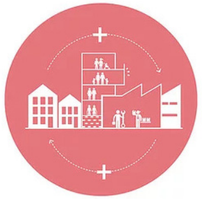




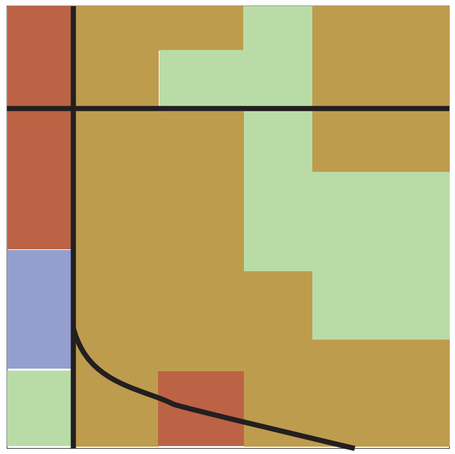
Sustainable Mobility and New Connections



Social Sustainability - Social inclusive and cultural diverse environment



Vibrant and Mixed City Life



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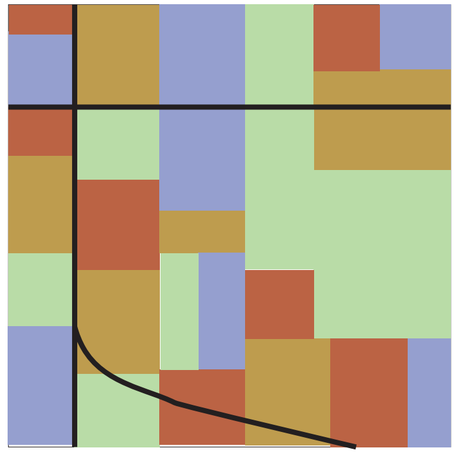
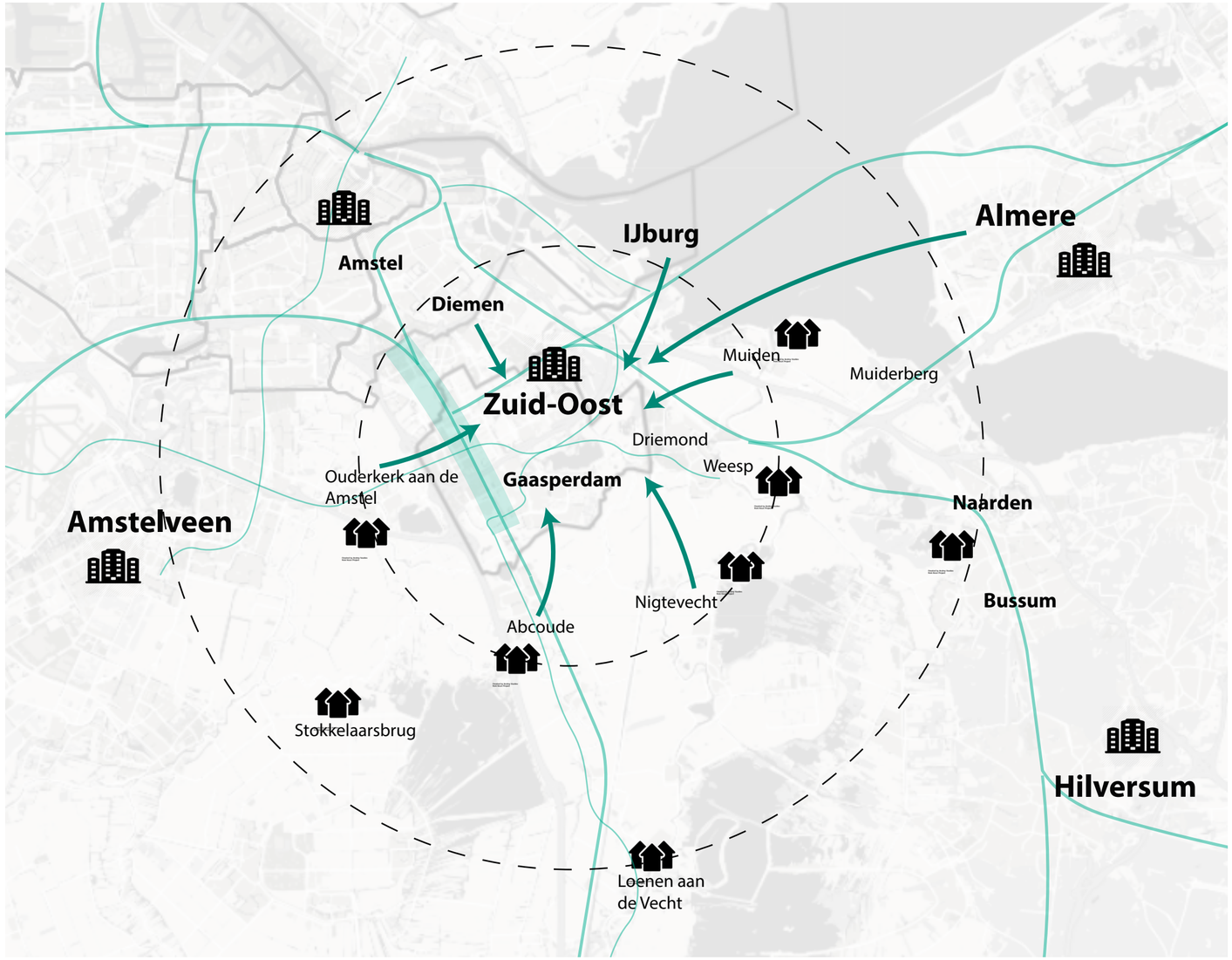


After

- From job opportunities, leisure to public ammenties
- Diversity of buildings to choose

Strategy IV - All-around, mixed and diverse typolgies and land use, Active street level

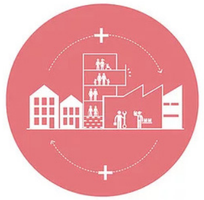




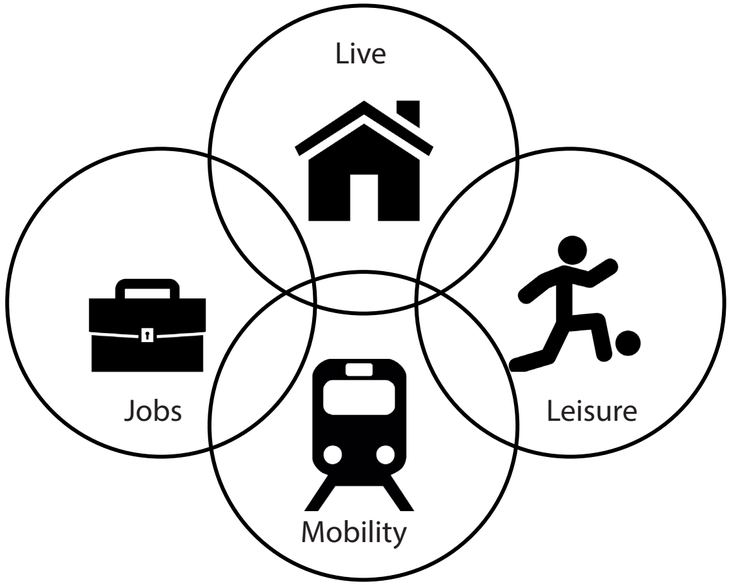
Sustainable Mobility and New Connections



Social Sustainability - Social inclusive and cultural diverse environment



Vibrant and Mixed City Life



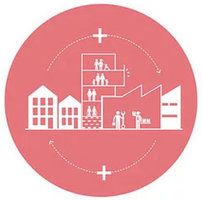
Strategy V - Small urban grid with more network and public meeting nodes (different scales)



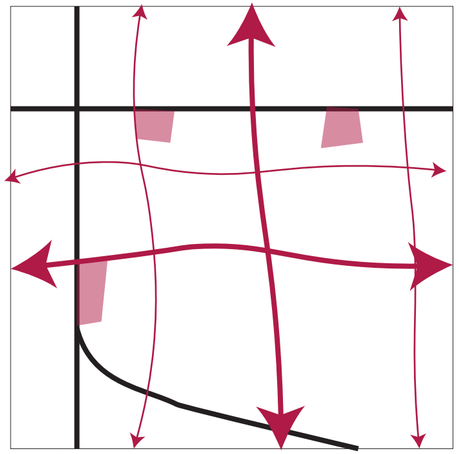




Social Sustainability -
Social inclusive and cultural diverse environment



Vibrant and Mixed City Life



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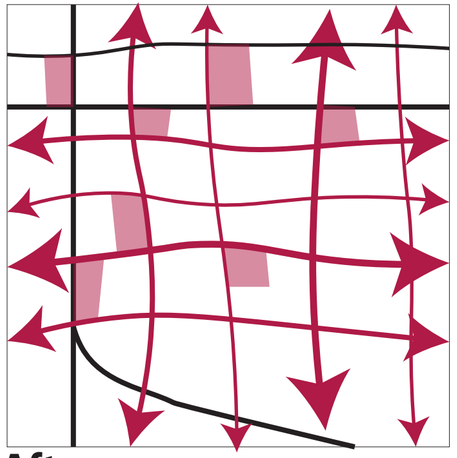


After

Where to densify?

Schiphol Corridor and Central Park

Where to densify?



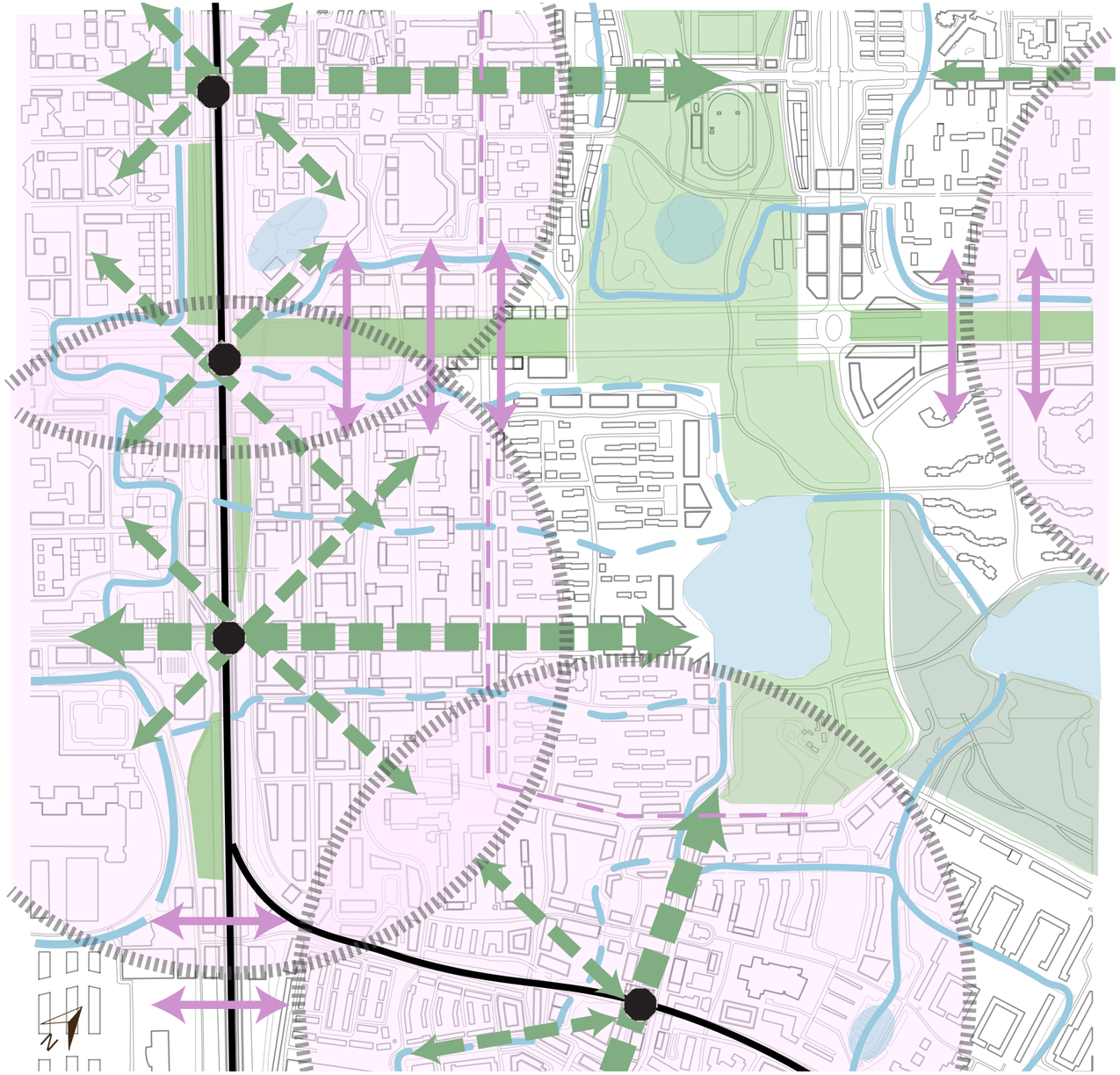


The conceptual master plan suggests symbiotic pathway for city development. It leads people live close to different traits of greenery space while controlling monetary development that is derived from the geographical importance

- Innovative Axis
- Mixed Used Residential Development
- Gaasperplaas Lake Park
- Mandela Event Park
- A9 Promenade Park
- Railway
- Motorway

Walkable Circles and Green Connections

Where to densify?



Water Body (“Sponge City” - Climate Adaptive)

Nature Park

Urban Park/ Spoorpark

Walkable Distance (10 minutes Walk - 800 meters)

Main Green Walking Routes

New Connections between Neighbourhood

Secondary Walking Routes

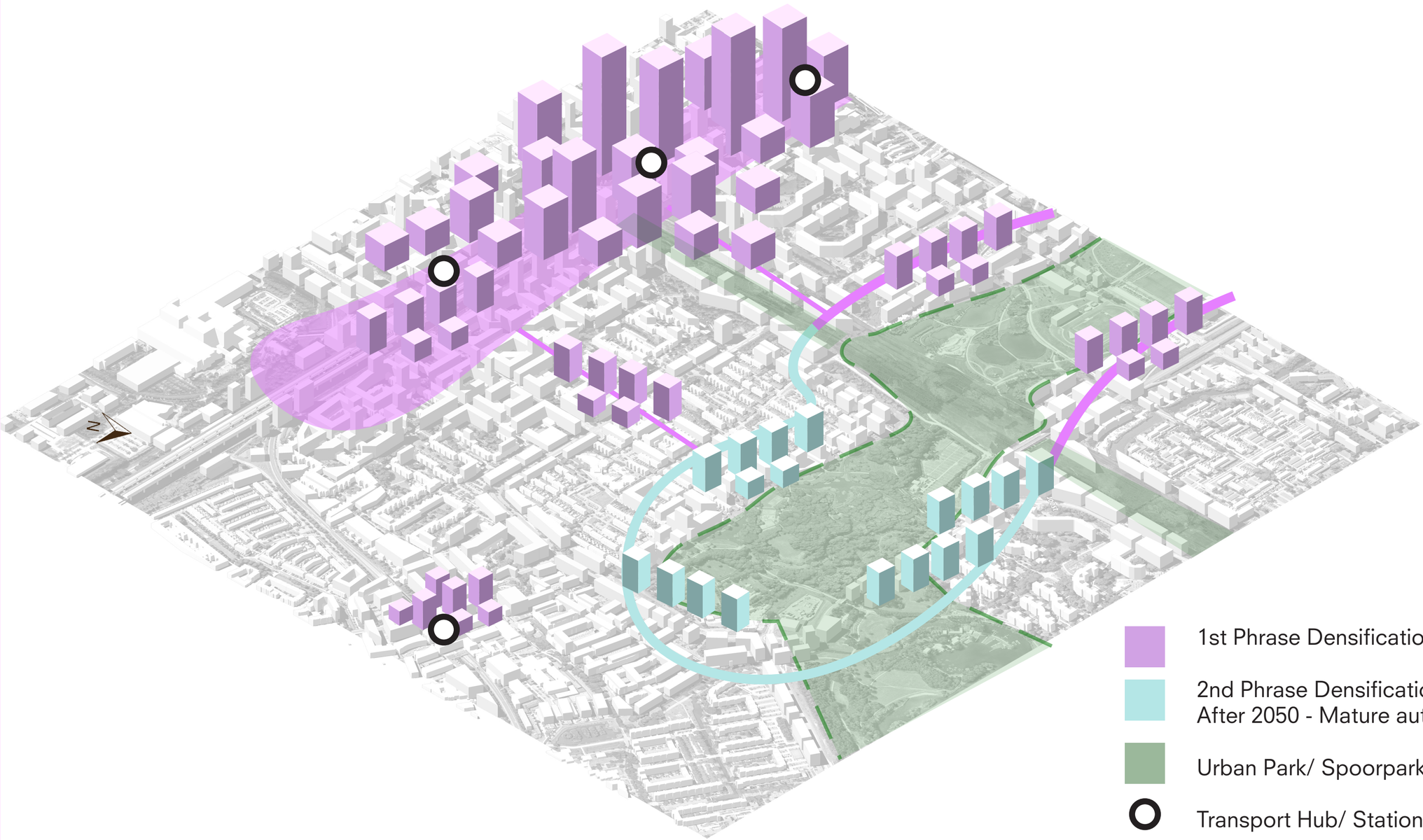
New Water Way (Climate Adaptive System)

Transport Hub/ Station

Metro/ Train

Phrases of Densifications

Where to densify?



1st Phrase Densification (2050)

2nd Phrase Densification (2100)
After 2050 - Mature automatic “Pod” driving technology

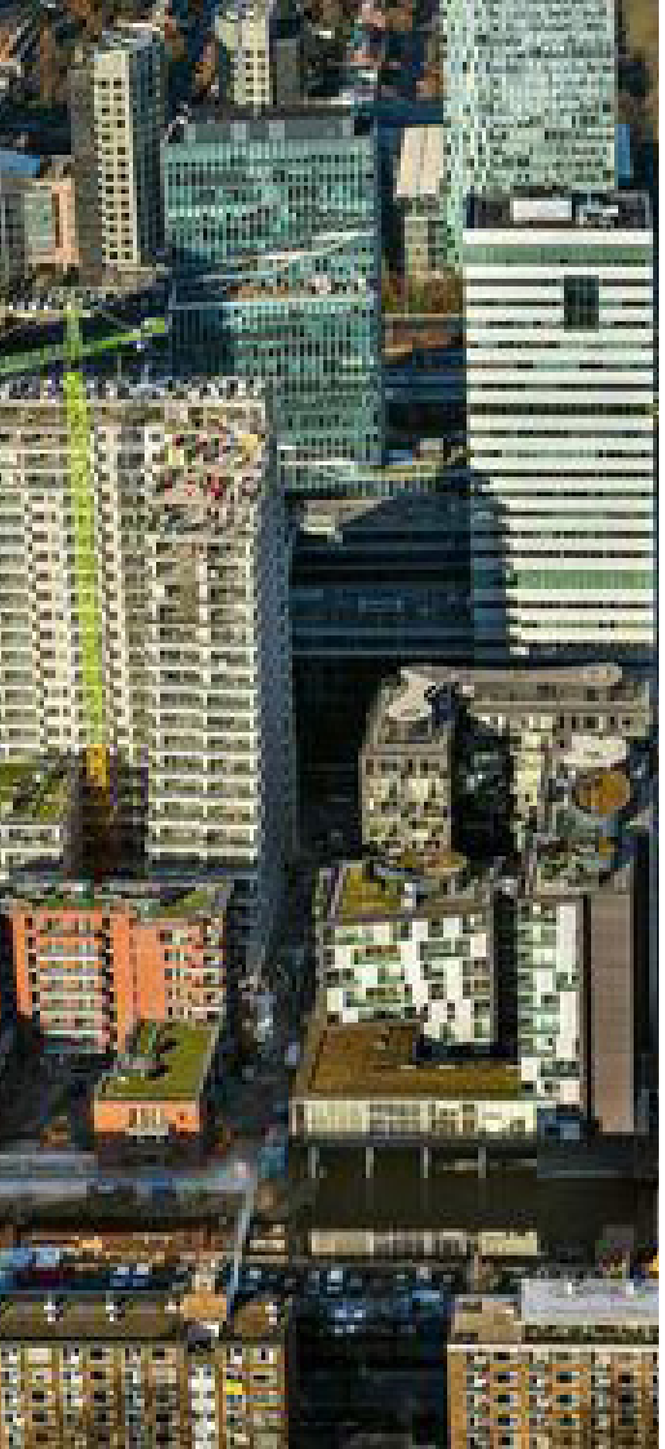
Urban Park/ Spoorpark

Transport Hub/ Station

How much to densify?

1. Demographic Prediction

2. Density that sustains a lively urban environment



Densification and Urbanization

Density and typology



Population of Amsterdam (City Area)

By 2018

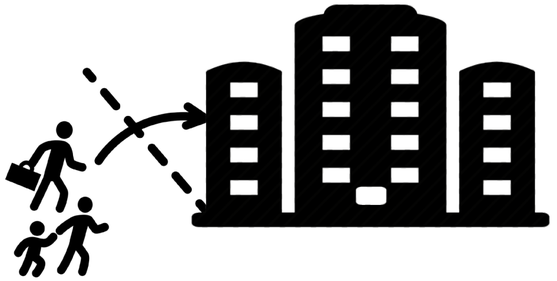
850,000

By 2050

1,300,000

By 2100

1,560,000 (~Doubled)



By 2018,

50%

of world population will live in cities.

By 2050,

70%

of world population will live in cities.

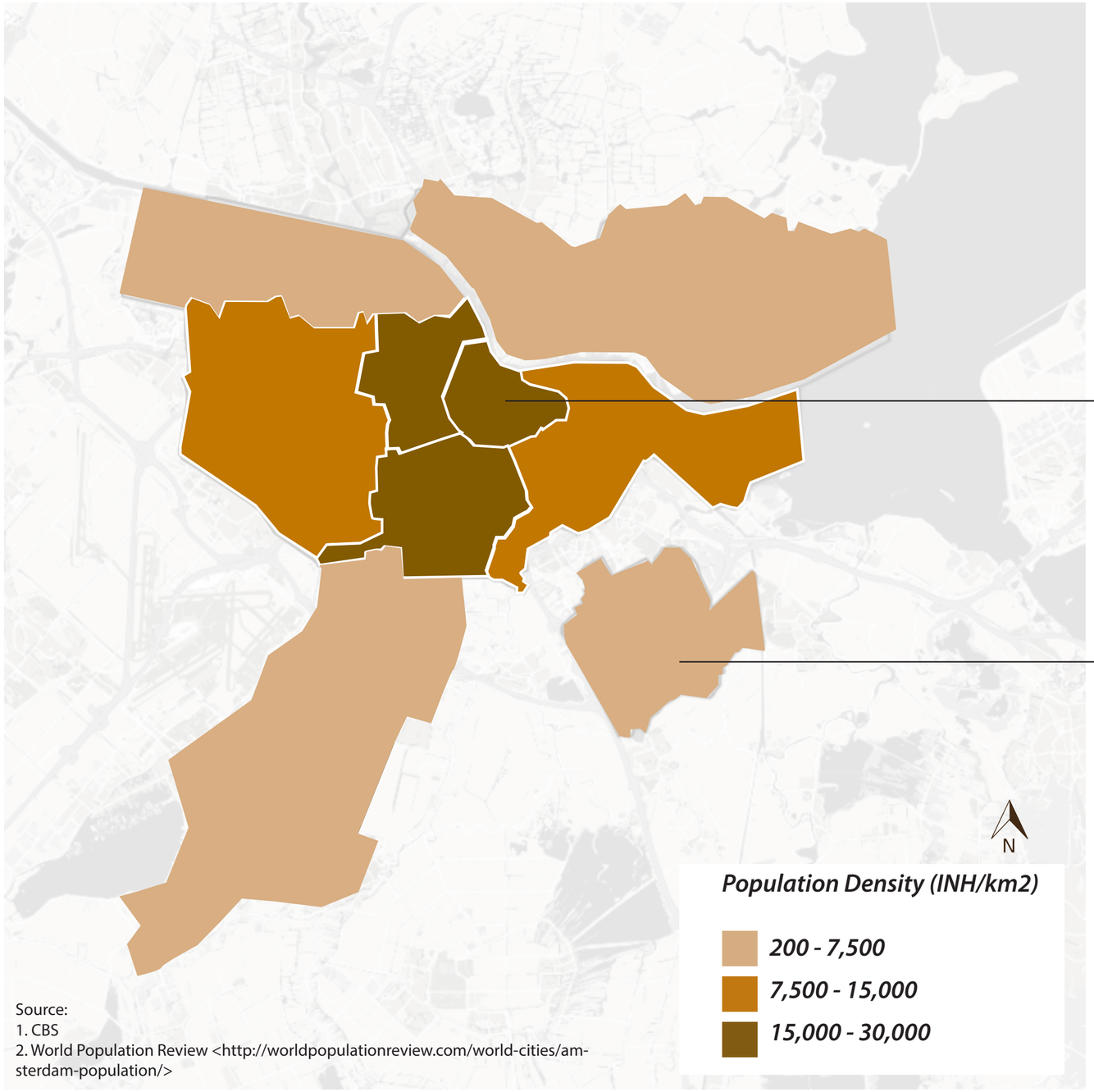
By 2100,

80%

of world population will live in cities.

Share of Densification by Zuid-Oost

Density and typology





Amsterdam Centraal



Zuid-Oost

The centre is currently ***3 times*** as dense as Zuid-Oost.

If 2100 the population is *doubled*, and Zuid-Oost takes up half of the increase in central districts, Zuid-Oost will be densified-

more than 2 times e.g. 3 times.

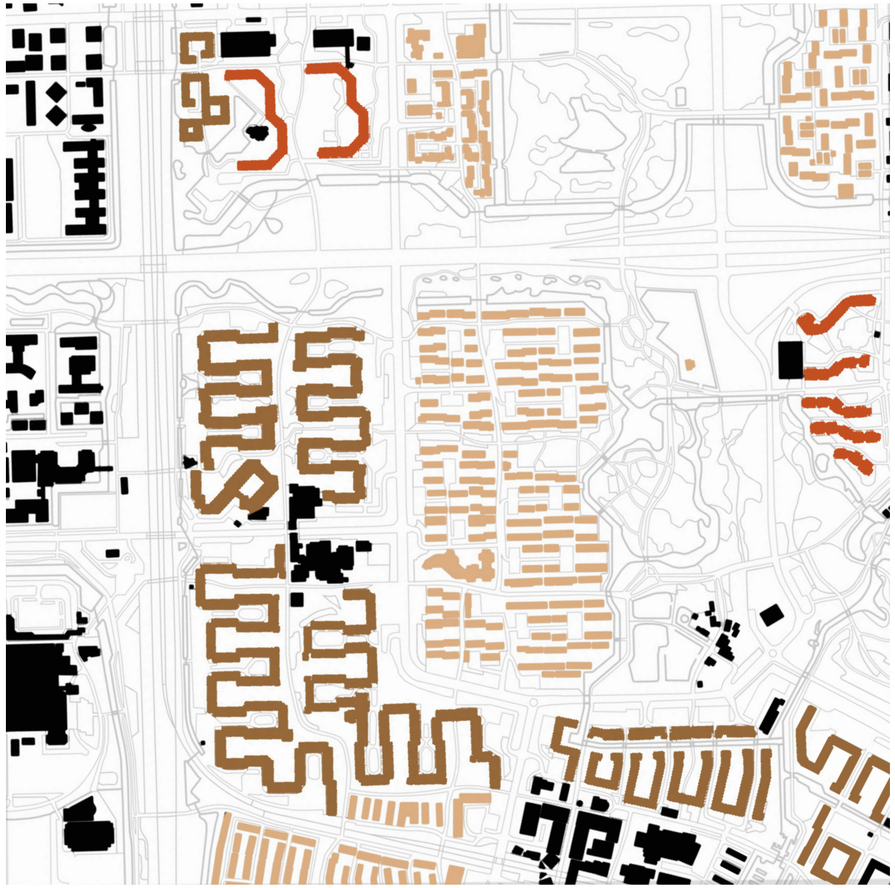
Source:
1. CBS
2. World Population Review <http://worldpopulationreview.com/world-cities/amsterdam-population/>

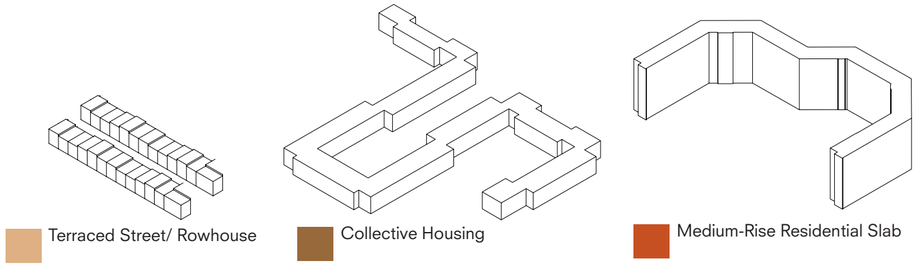
1. Demographic Prediction

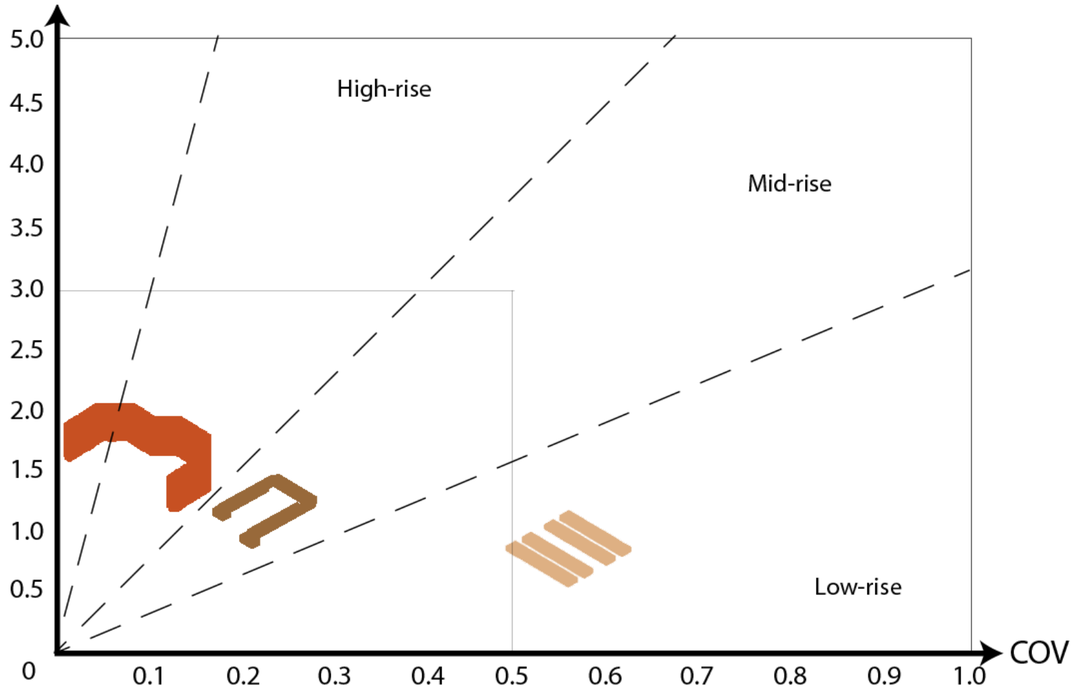
2. Density that sustains a lively urban environment

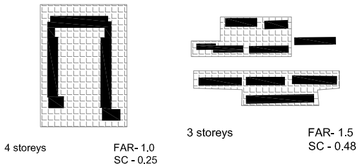
Current Density and Typology Study

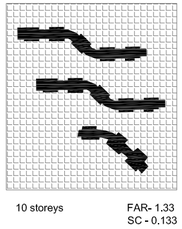
Density and typology

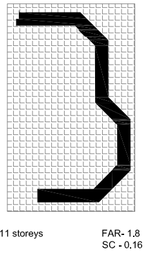


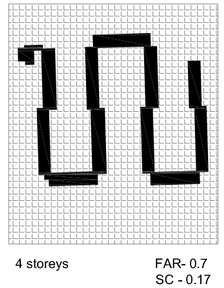












Study of Walkable City and Regeneration Cases

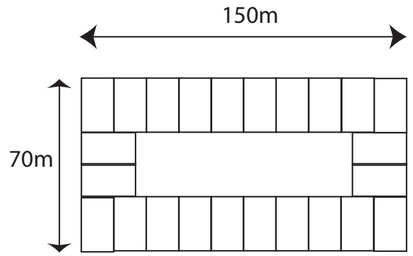
Comparsion of Density of other Cities

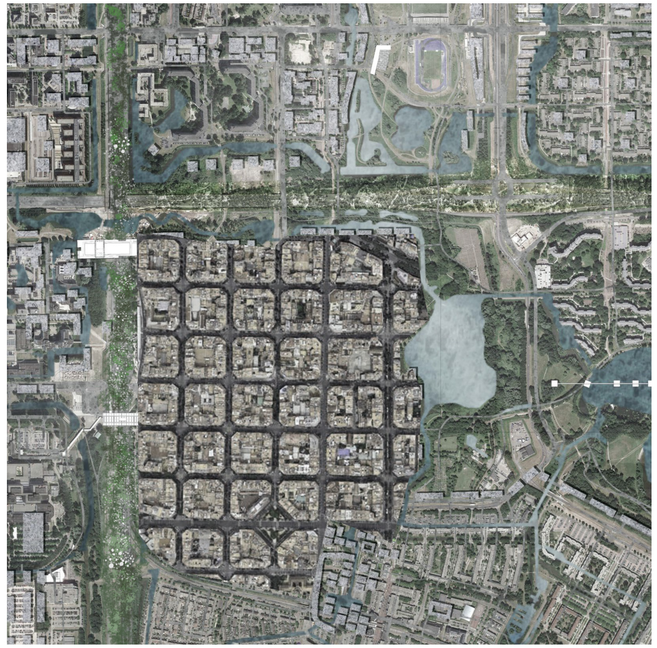
Density and typology



Centraal, Amsterdam

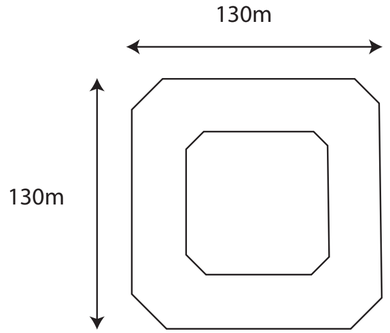
Density: 11,000 IHN/km2
FSI of typical urban block:
2.8-3.2

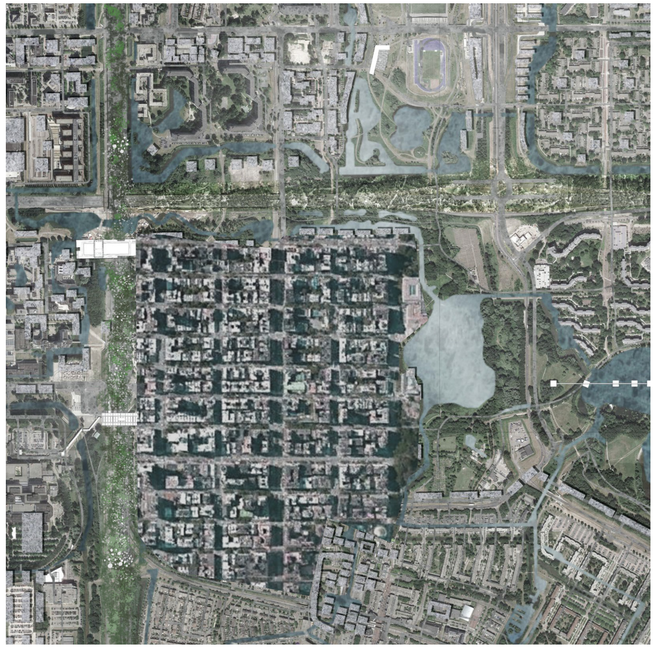




Barcelona

Density: 16,000 IHN/km2
FSI of typical urban block:
3.3-4.0



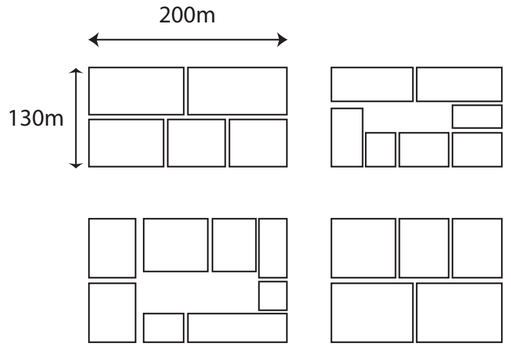


Manhattan, New York

Density: 25,846 IHN/km2
FSI of typical urban block:
3.3 (Upper Manhattan) - 10.0 (max. for residential)
(Lower Manhattan/Midtown)

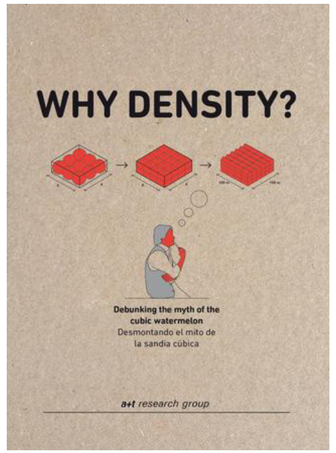
Mid-Town, Manhattan, NY
FSI of typical urban block:
5.4 - 8.8

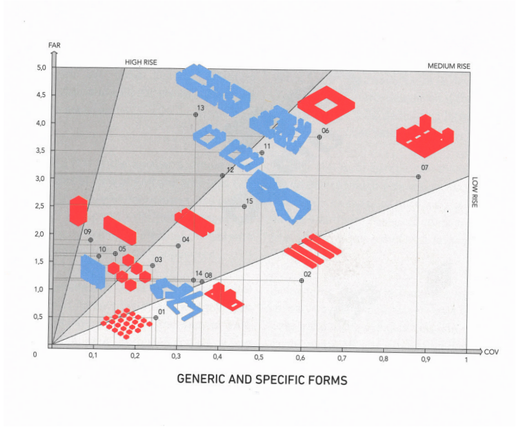
Upper East-Side, Manhattan, NY
FSI of typical urban block:
4.0 - 8.0



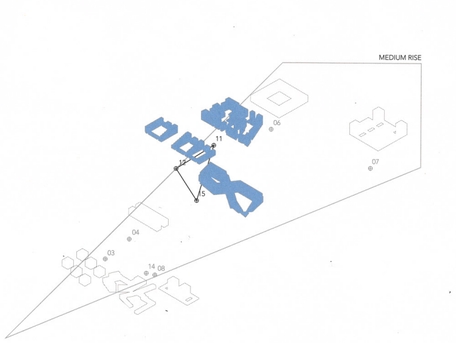
Density and Typology Study

Density and typology





GENERIC AND SPECIFIC FORMS



THE GOLDEN TRIANGLE

FSI around 3.0 (Mid-rise)
The best for lively urban life in European scale

COV around 5.0
The best balance between open space and building fabrics

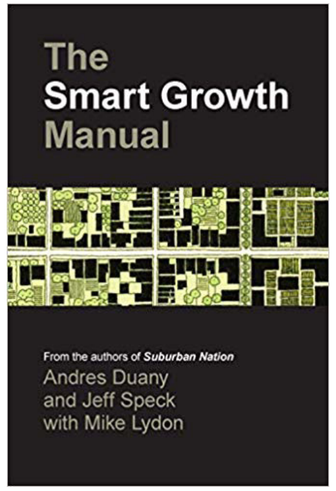
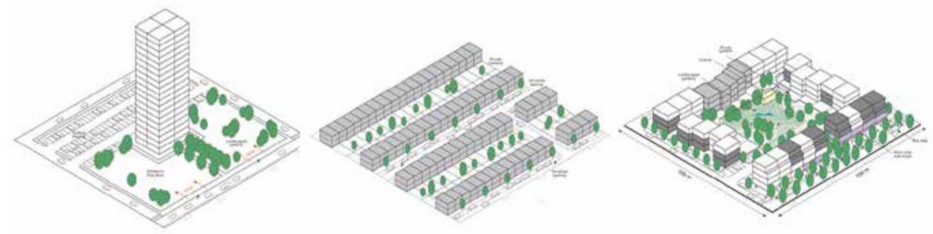


Figure 1. Different architectural forms that achieve the same density (i.e. 75 dwellings per hectare)[20]



A high rise

A terraced street layout

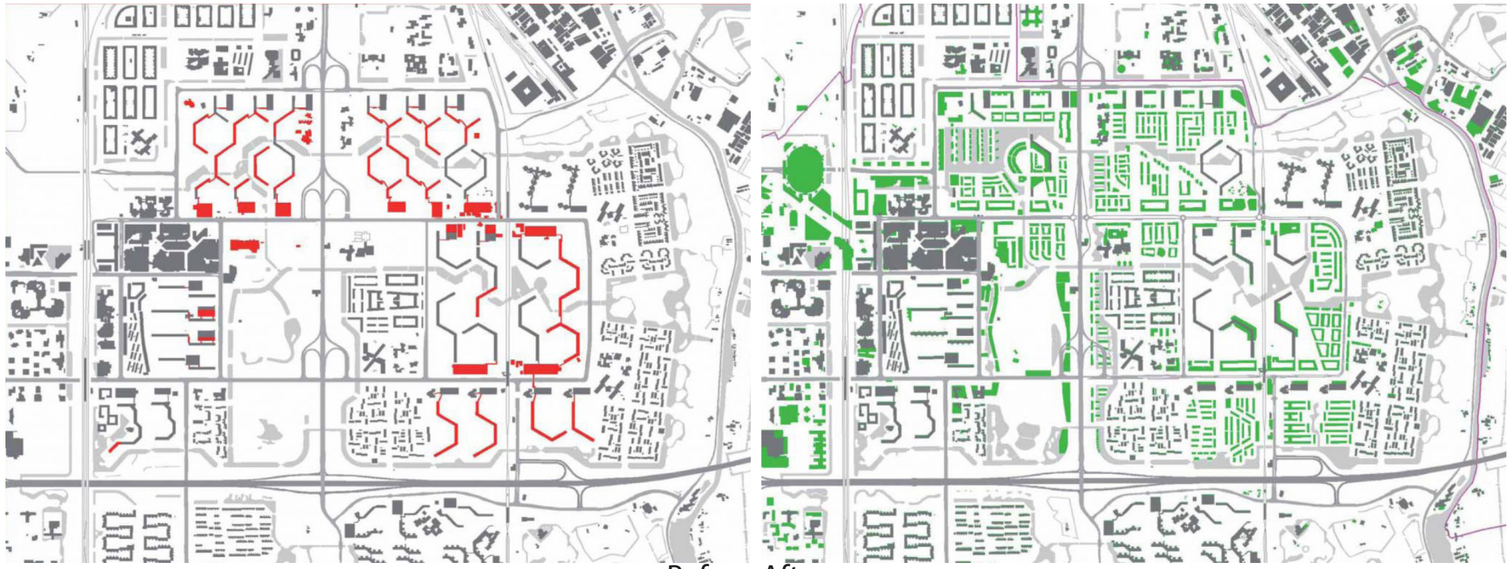
A series of blocks enclosing Public Open Space

Adapted from: blog.pressan.is/arkitektur/files/2011/11/2832_N30_w.jpg

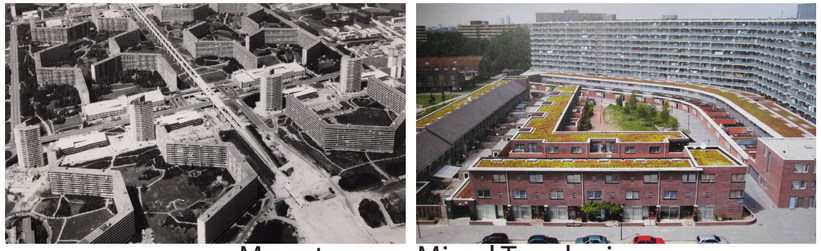
Study of similar urban regeneration cases

Regeneration of Bijlmermeer

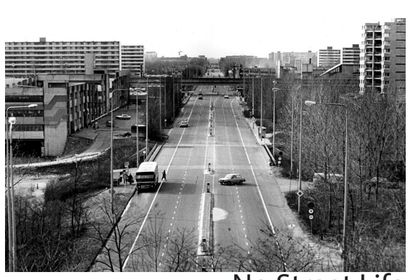
Density and typology



Before After



Monotonous Mixed Typologies





No Street Life Active Street Life/ Mixed-Use

Vision

- Walkable city
- Mixed-Used
- Diverse Typologies

Principles to learn from

Urban Grid Size:

- Smaller urban grids
- Denser street network
- Some new grids following the axis given by Bijlmermeer

Typologies:

- Mix of mid-rise courtyard buildings and towers
- Reserve part of the existing fabrics

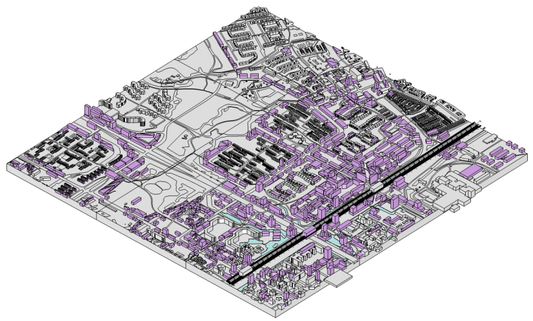
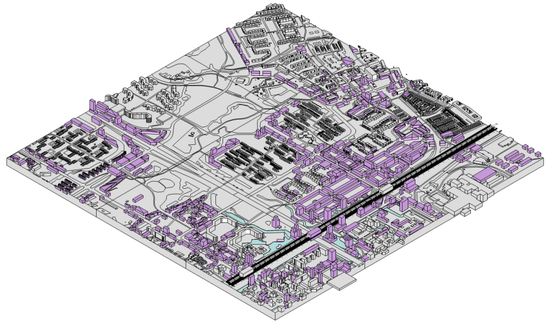
Street Relationship:

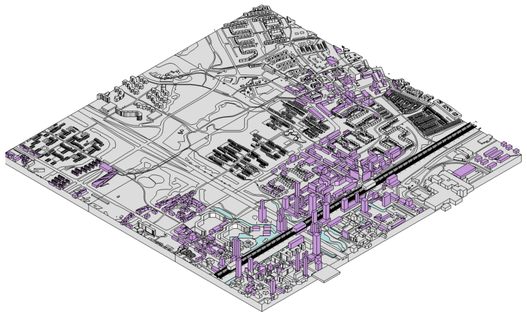
- Alignment to streets for the experience of street
- Fill-in outer void forming inner courtyard
- “Skinny” streets
- Active ground/street level design

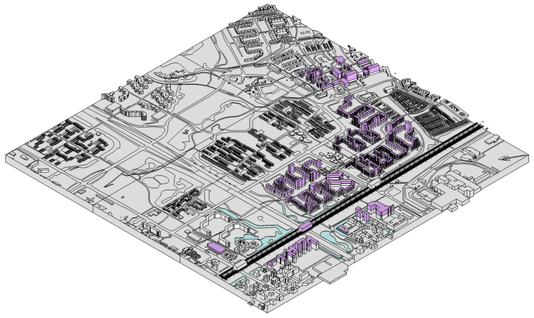
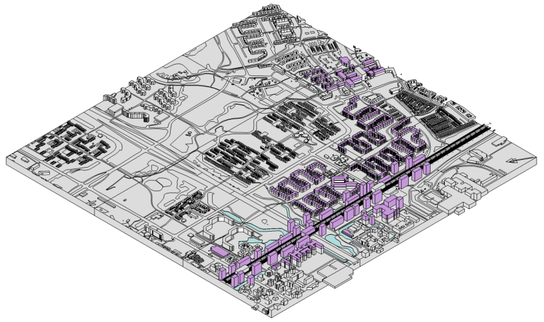
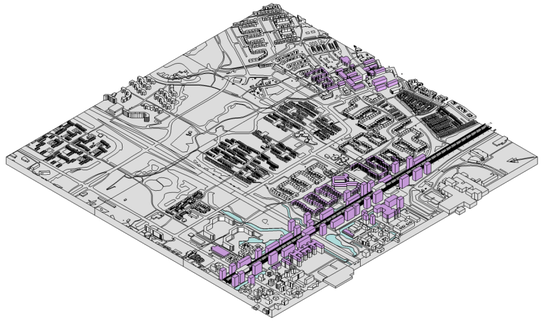
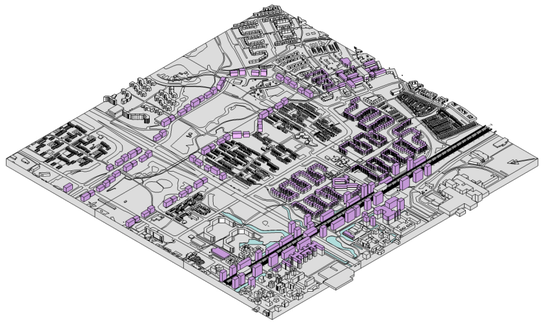
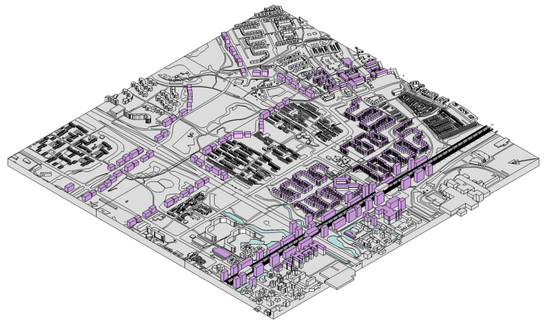
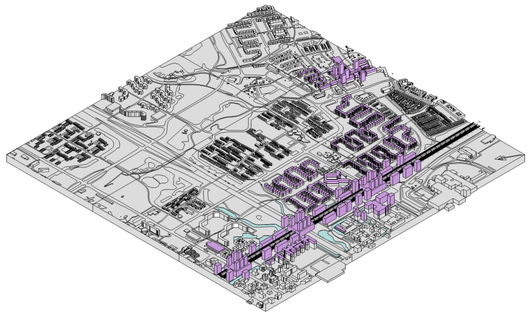
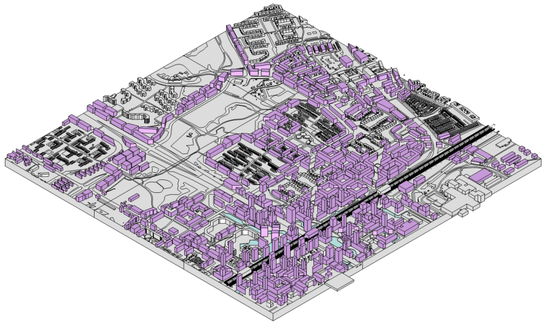
Study of massing

Testing and Finding Principles

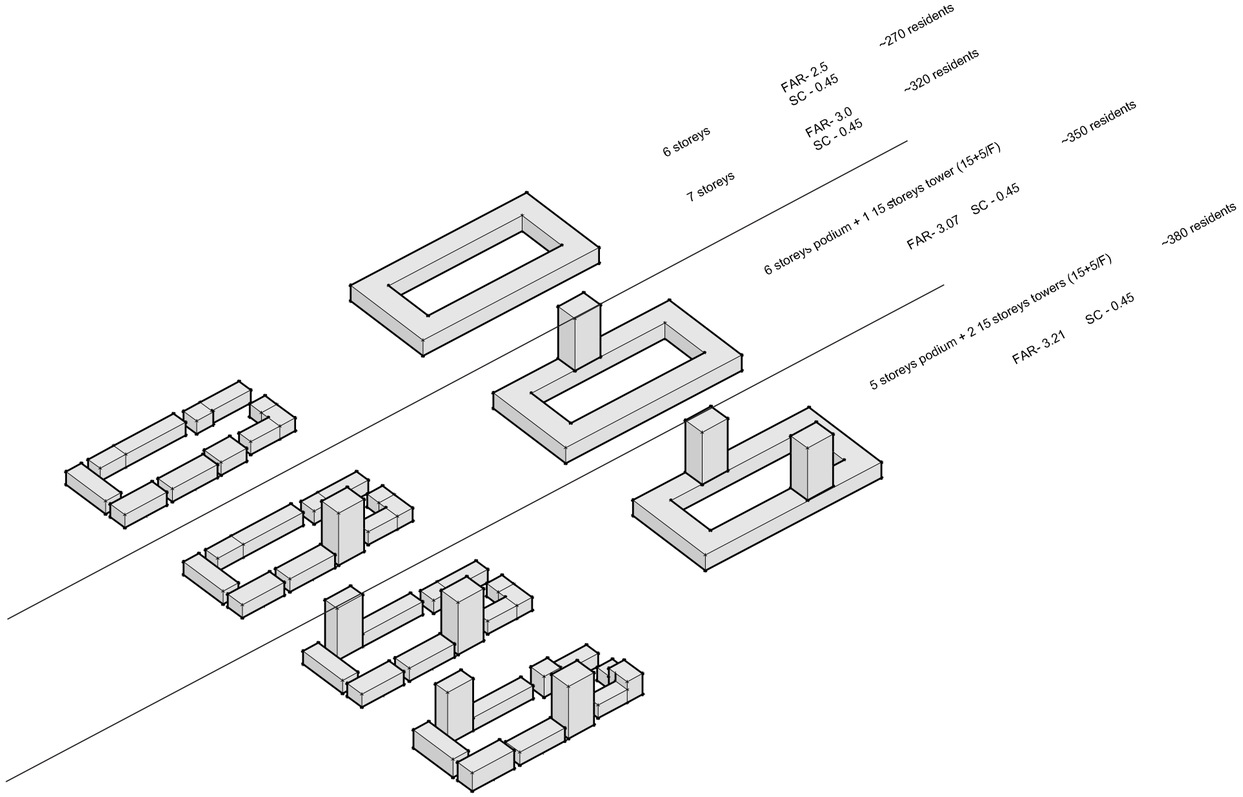
Density and typology

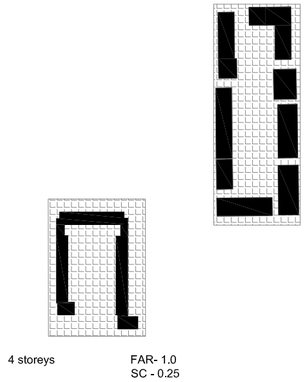





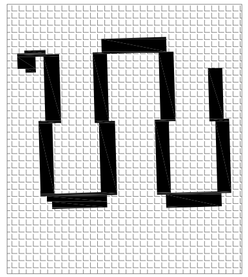








Testing and Calculations
Density and typology



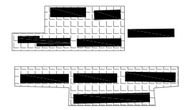


4 storeys FAR- 1.0
SC - 0.25

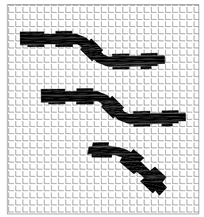


4 storeys FAR- 0.7
SC - 0.17

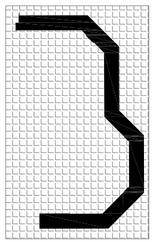
5 storeys	FAR- 2.09 SC - 0.45	~220 residents	5 storeys podium + 1 15 storeys pin tower (15+5/F)	~300 residents
6 storeys	FAR- 2.5 SC - 0.45	~270 residents	FAR- 2.65 SC - 0.45	
7 storeys	FAR- 3.0 SC - 0.45	~320 residents	6 storeys podium + 1 15 storeys tower (15+5/F)	~350 residents
10 storeys	FAR- 4.18 SC - 0.45	~470 residents	FAR- 3.07 SC - 0.45	
15 storeys	FAR- 6.27 SC - 0.45	~720 residents	5 storeys podium + 2 15 storeys towers (15+5/F)	~380 residents
			FAR- 3.21 SC - 0.45	
Bottom Floor -	Commercial/Institutional/ Cultural/ Communal		5 storeys podium + 2 20 storeys towers (20+5/F)	
			FAR- 3.58 SC - 0.45	~400 residents



3 storeys FAR- 1.5
SC - 0.48



10 storeys FAR- 1.33
SC - 0.133



11 storeys FAR- 1.8
SC - 0.16

15 storeys FA - 10245

GAASPERDAM ZUIDOOST 2018

TOTAL GFA

7.64m

APARTMENT

78,339

POPULATION

TOTAL POP:
46,892



GAASPERDAM ZUIDOOST 2050

TOTAL GFA

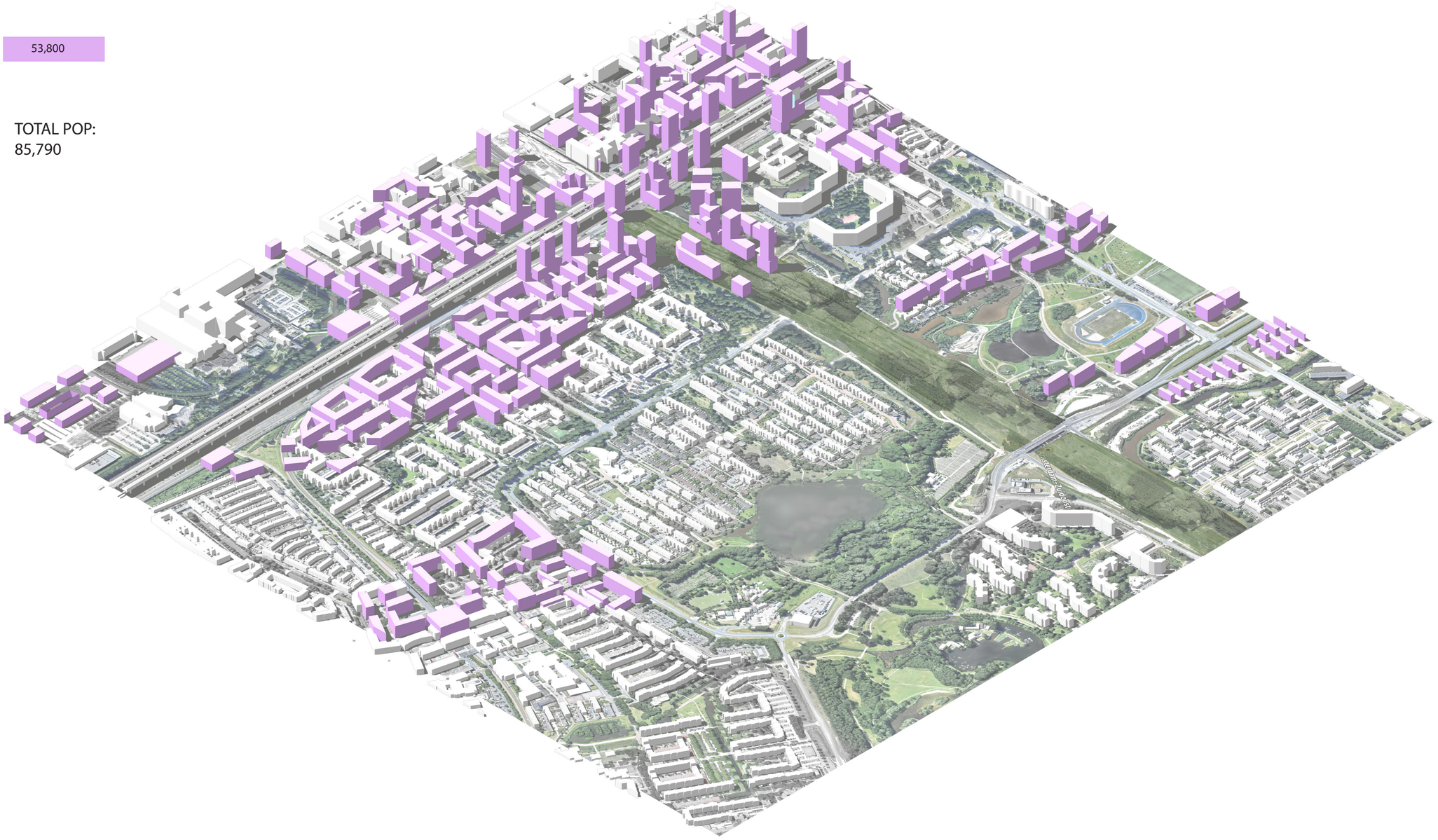
7.64m	5.45m

APARTMENT

78,339	53,800

POPULATION

TOTAL POP:
85,790



GAASPERDAM ZUIDOOST
2100

TOTAL GFA

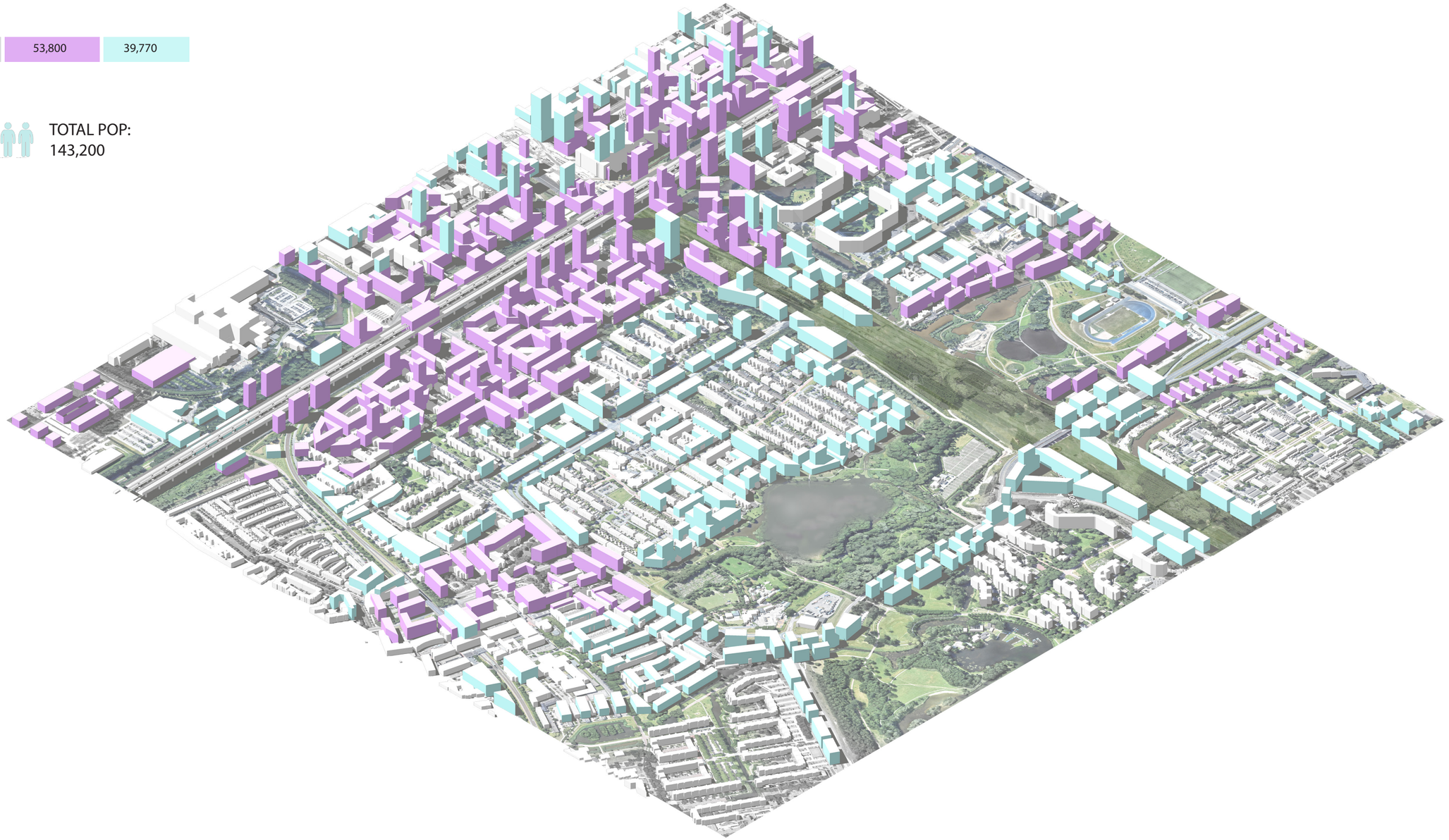
7.64m	5.45m	4.12m

APARTMENT

78,339	53,800	39,770

POPULATION

TOTAL POP:
143,200



Individual Locations





Individual

Individual Location

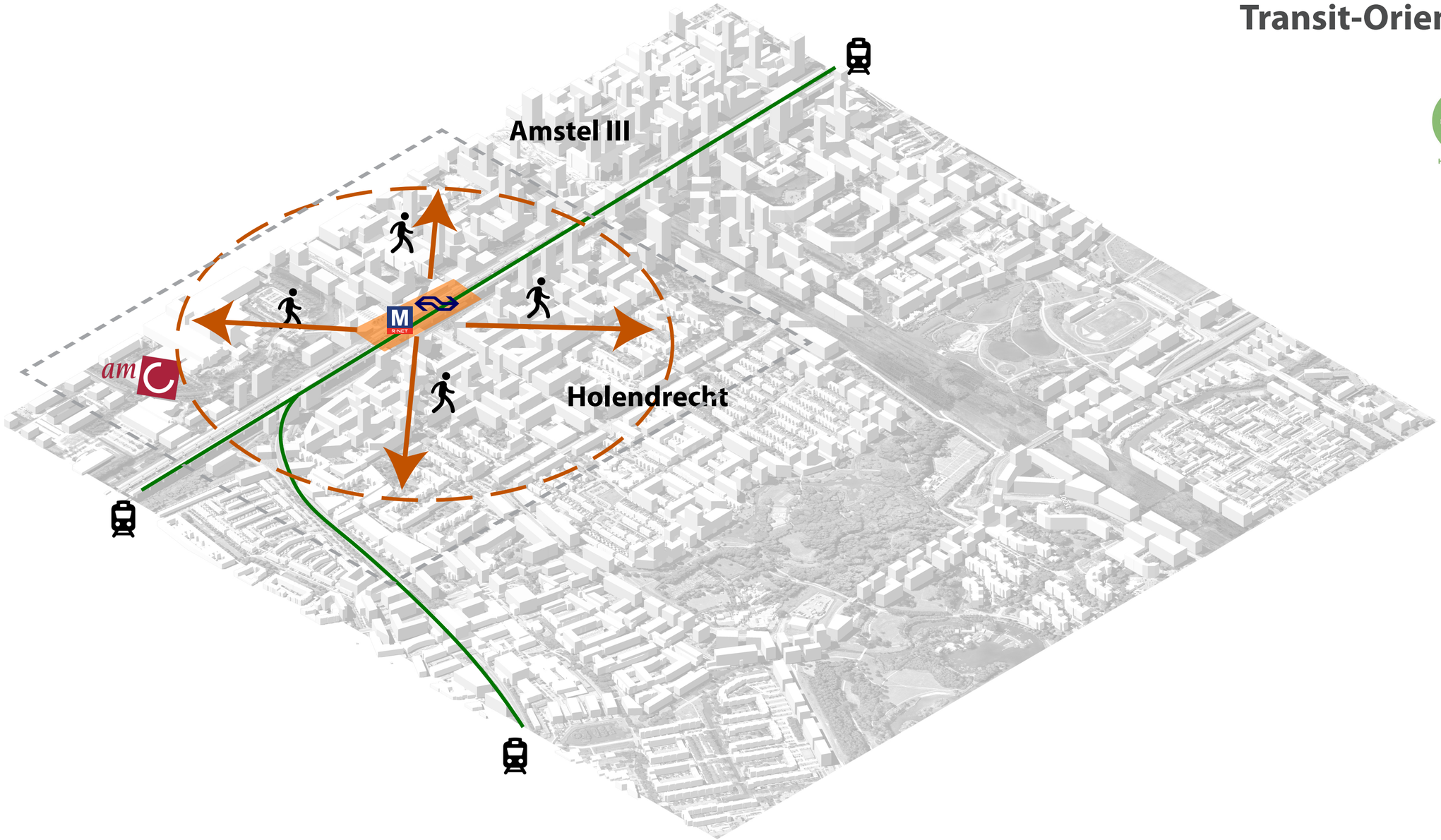




Master Plan of Personal Site

Transit-Oriented Walkable City

Site Vision



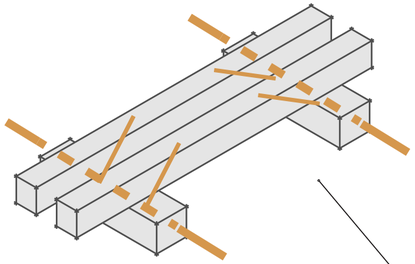






Green Connection

Site Vision



Station Typology





Site/ Station Location

Circulation

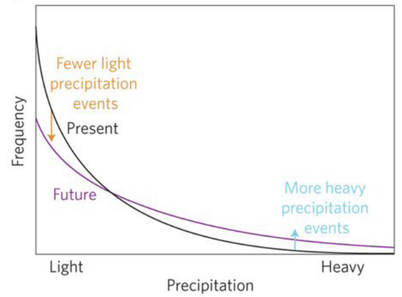
Green

Green Walknig Street

Climatic Adaptive "Sponge City"

Site Vision





Healthy sustainable environment

"Sponge" Lake

Existing Water Channels

New Water Channels



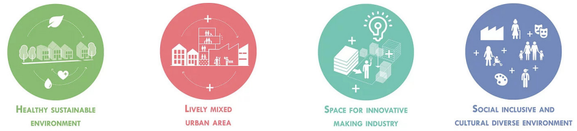


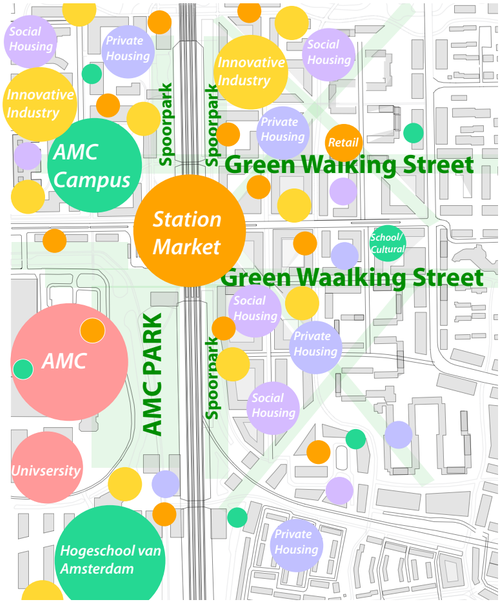


Mixed-used and Self-Sufficent City

Master Planning



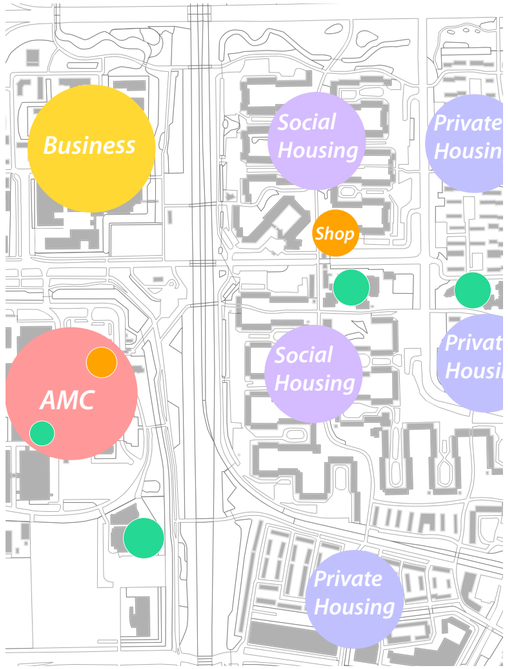




2018 - Monotonous Function

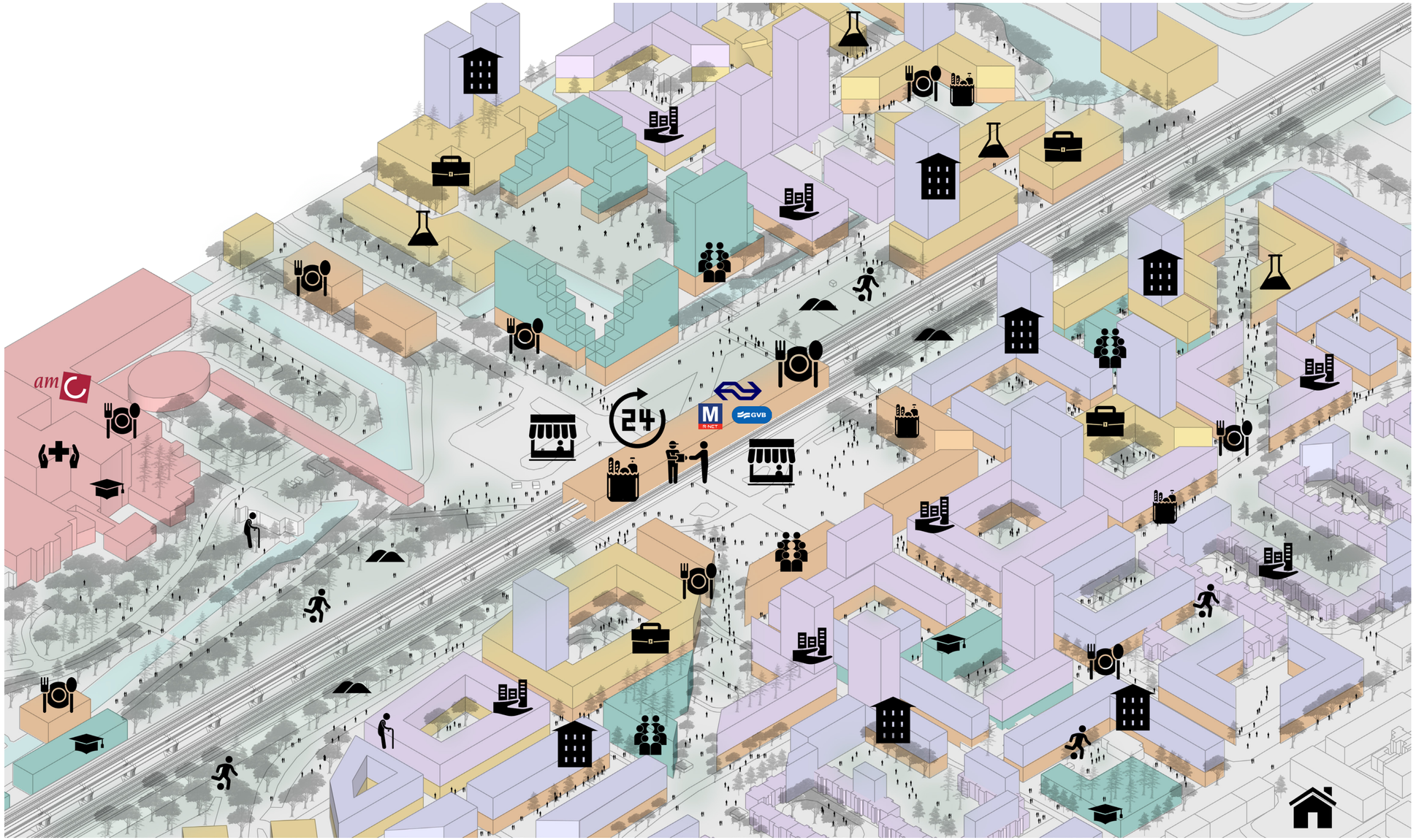
Master Planning

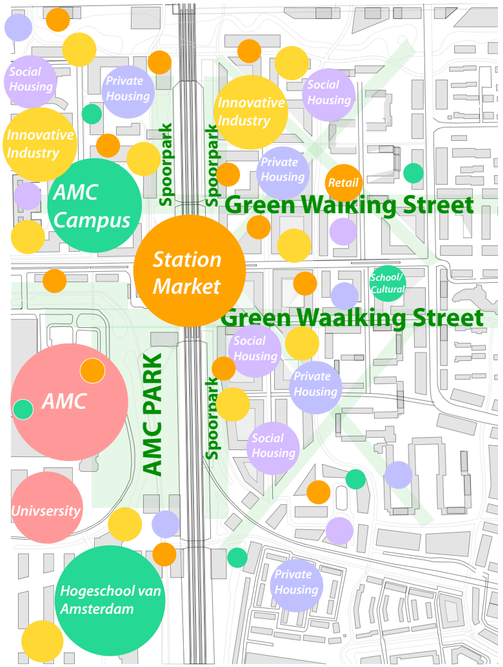




2100 - Mixed-used and Self-Sufficent City

Master Planning





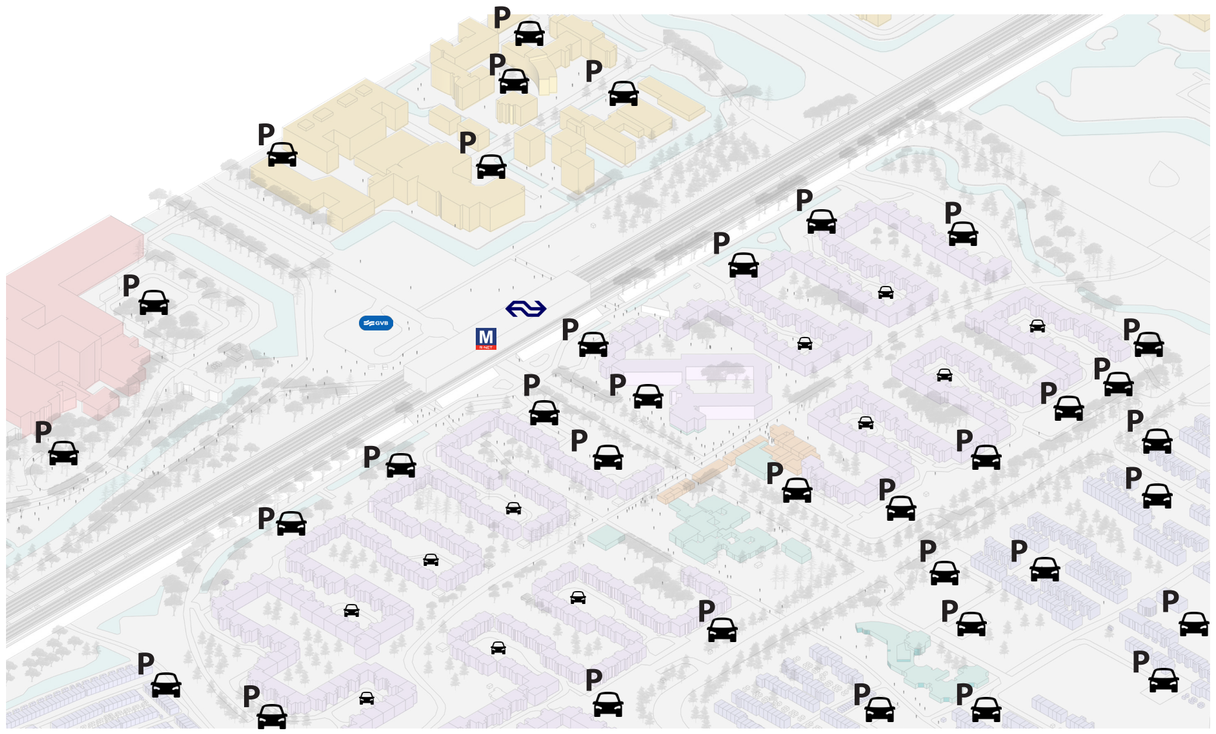
TOD Walkable City

Master Planning

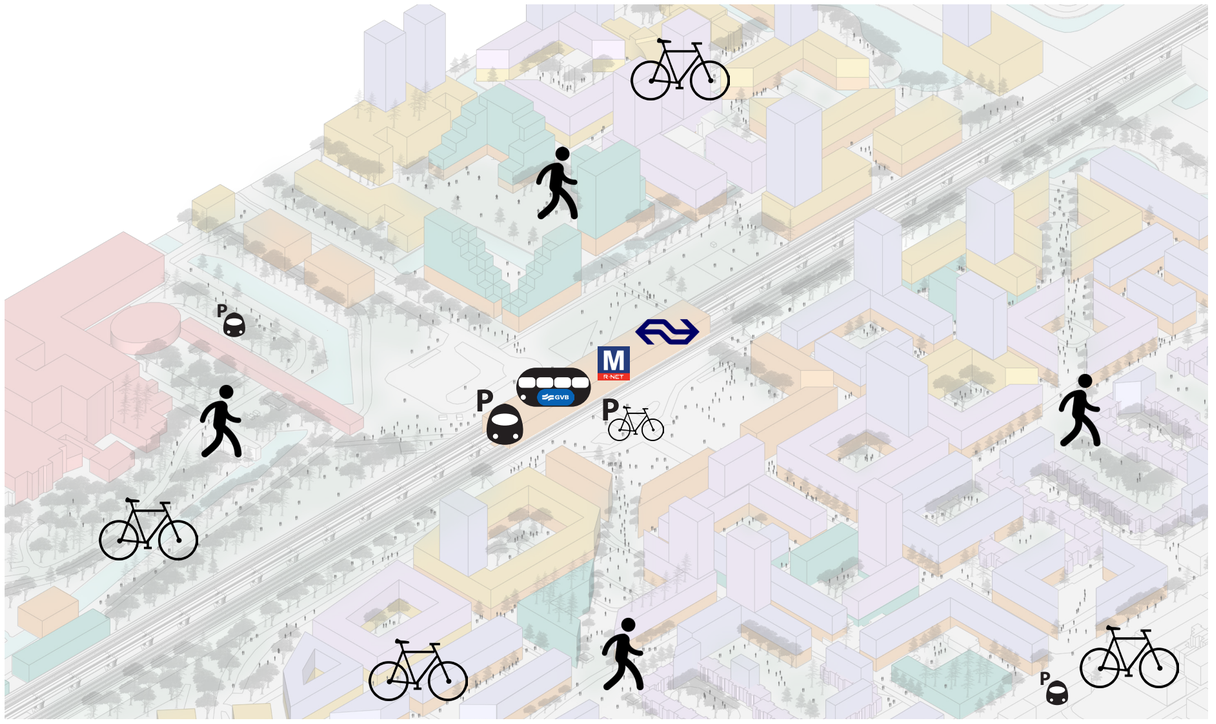
Healthy sustainable environment

Lively mixed urban area

Good connections and new mobility



2018



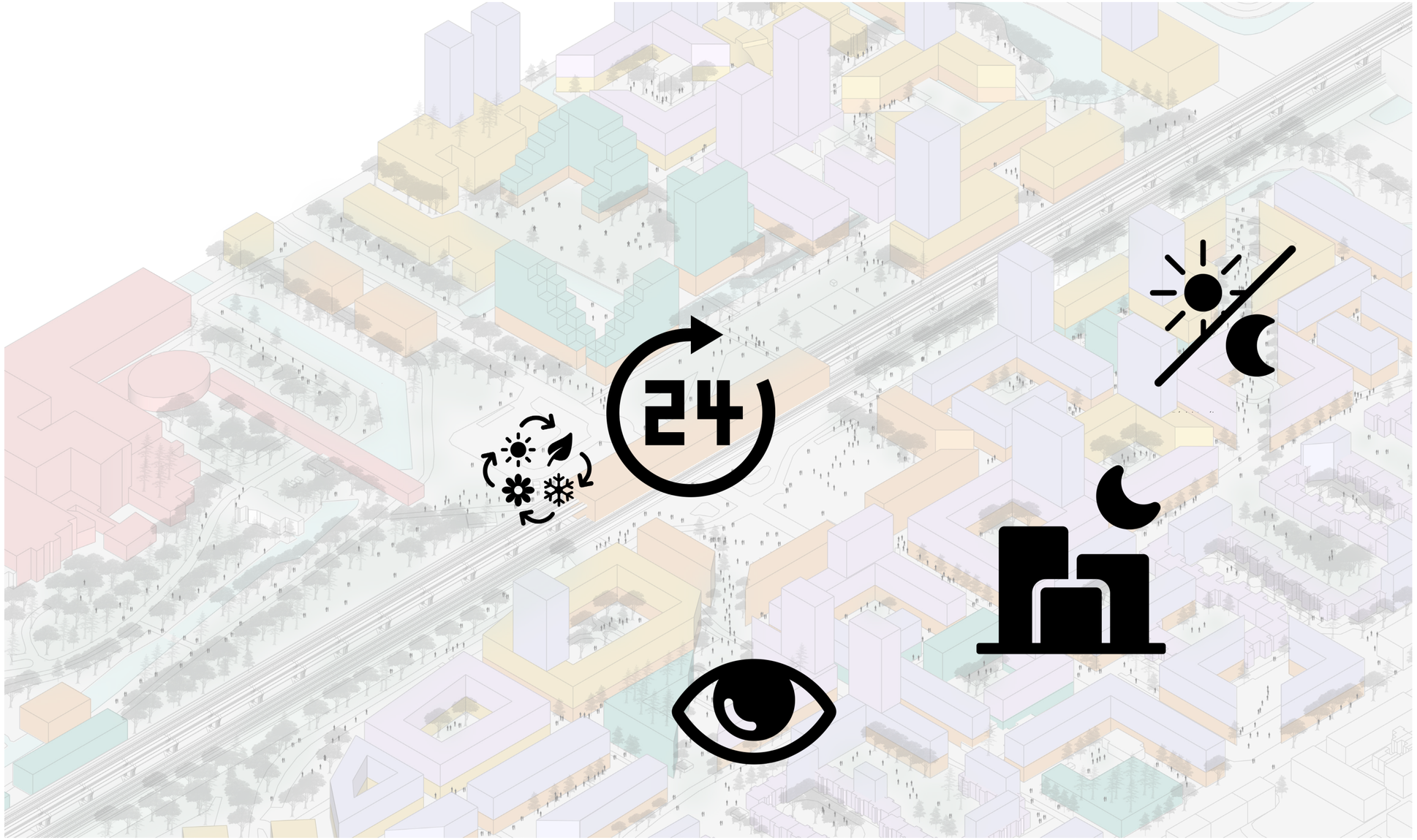
2100

Night-safe/ 24-hour City

Master Planning

LIVELY MIXED URBAN AREA

SOCIAL INCLUSIVE AND CULTURAL DIVERSE ENVIRONMENT



Current Site Situation





TOD (Transit-Oriented Development)

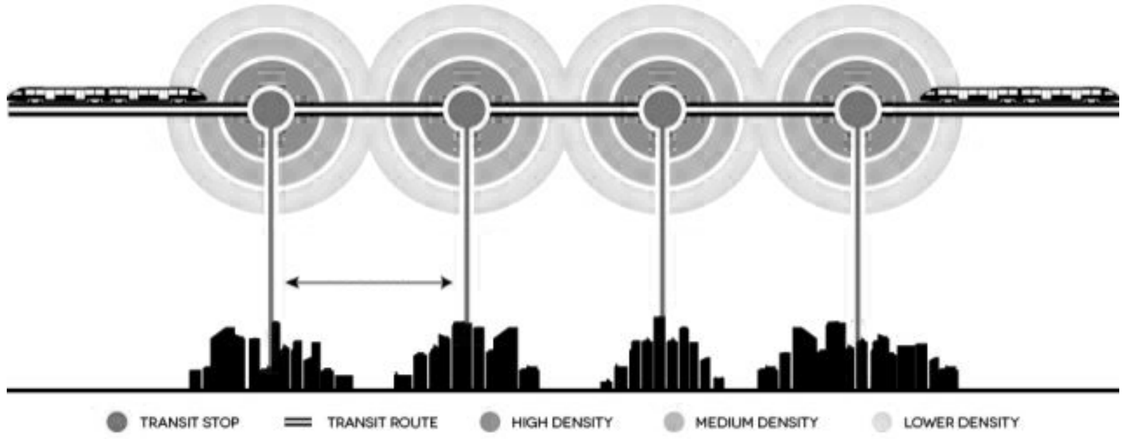
Site Vision







1. Much more thing can be happned around station (vision)
2. Contribute to/address the conenction of districts and densified schiphol corridor



Station + ?

Station + **Market**

Why Relevant to Zuid-Oost?

Social Context












TOILETTEN

Existing Markets

Social Context of Zuid-Oost



World of Food
Over 35 stalls

Anton de Komplein Market Monday, Thursday & Friday
108 stalls, occupation 70%

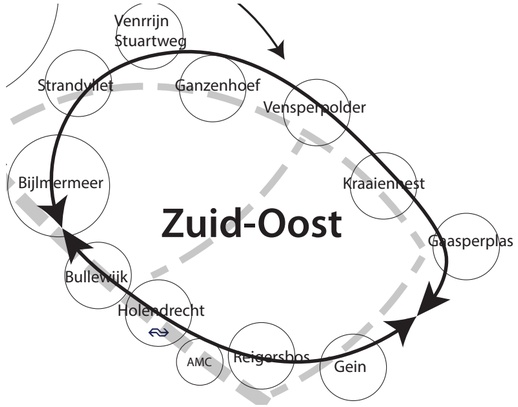
Ganzenhoef Saturday Market
135 stalls, occupation 78%

Kraaiennest Tuesday & Friday Market
80 kramen, bezetting 88%

Reigersbos Wednesday Market
134 stalls, Occupation 84%

Lively mixed urban area

Social inclusive and cultural diverse environment

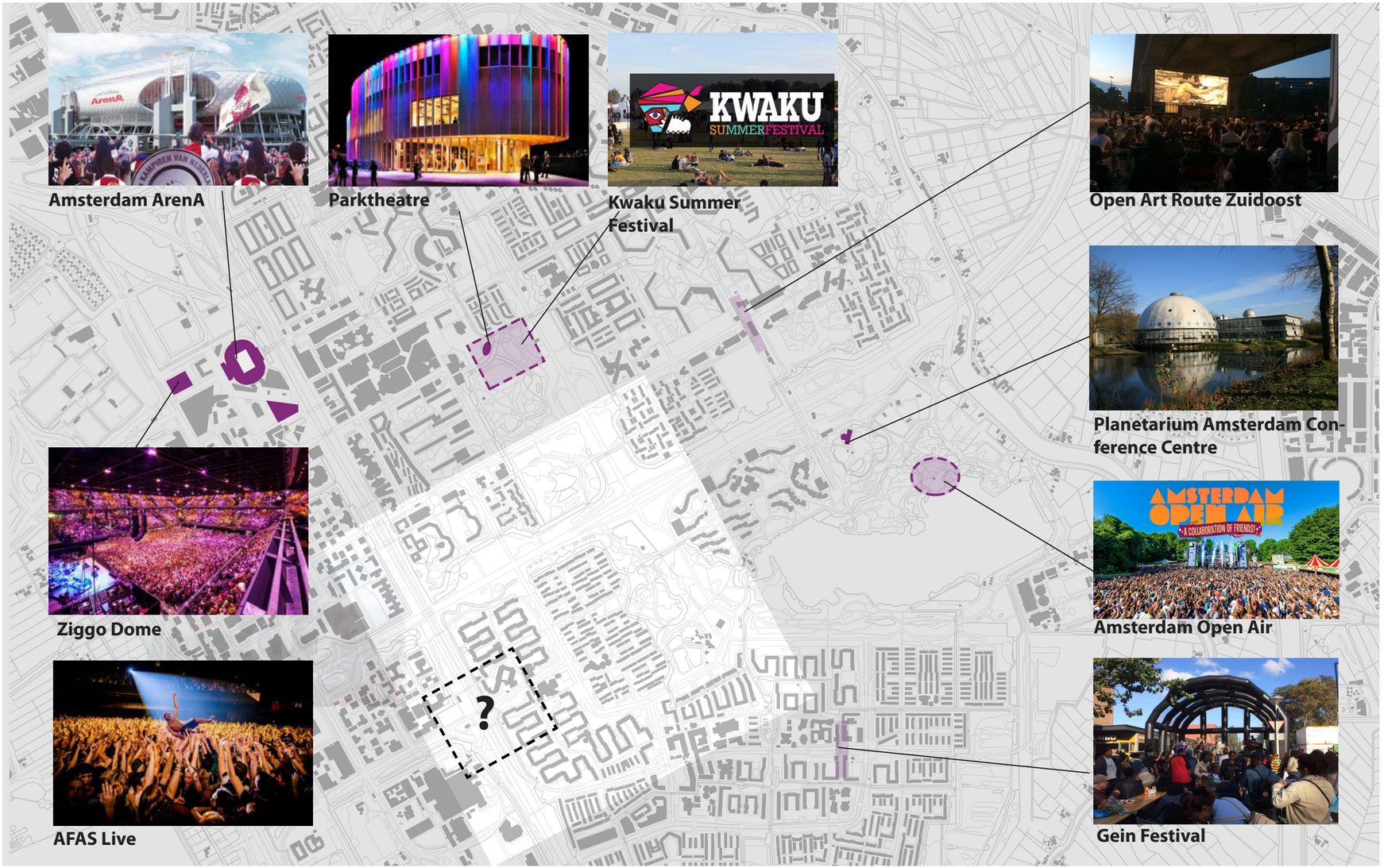


Interaction within Zuid-Oost

The neighbourhoods are interacting with each other with occasional festivals and daily markets in form of flea markets that switch to various locations in the whole week, except Holendrecht.

Events and Festival

Social Context of Zuid-Oost







Lack of Recreation/Leisure

Social Context of Zuid-Oost



KANTOOR HOUSE OFFICE HUIS
SHOP WINKEL WINKEL SHOP

Monotone neighbourhood

The neighbourhood is montonous that different functions of city are planned in a big patch together and each neighbourhood is separated by motorways and nature.

- Commercial/Retail
- Market
- Event/Festival
- Sports Field/Centre
- Community/Activity Centre

1. Lack of social and functional leisure place

2. Social Sustainaibility











Market as a carrier of cultures



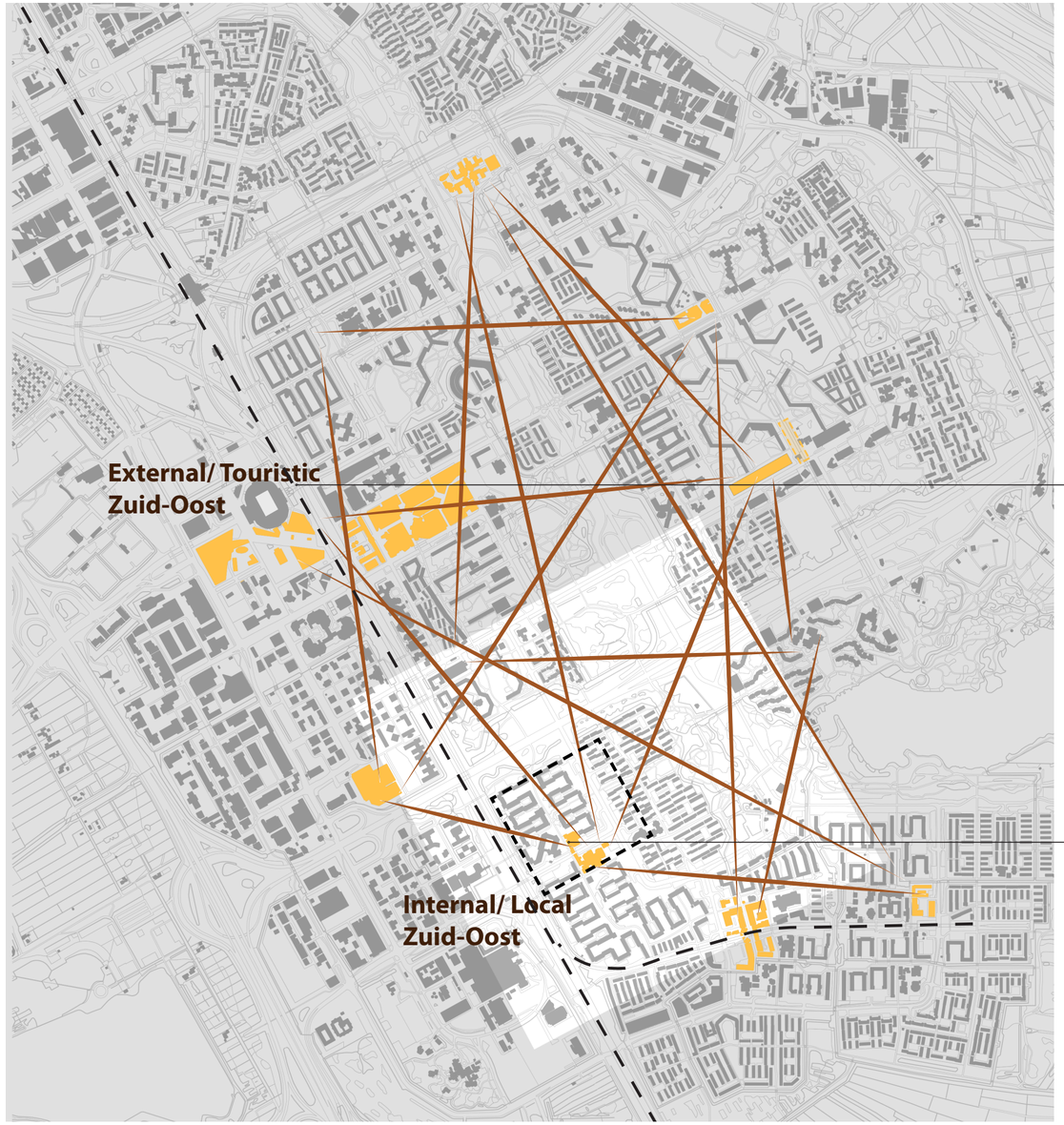






Position/Identity of Holendrecht

Social Sustainability







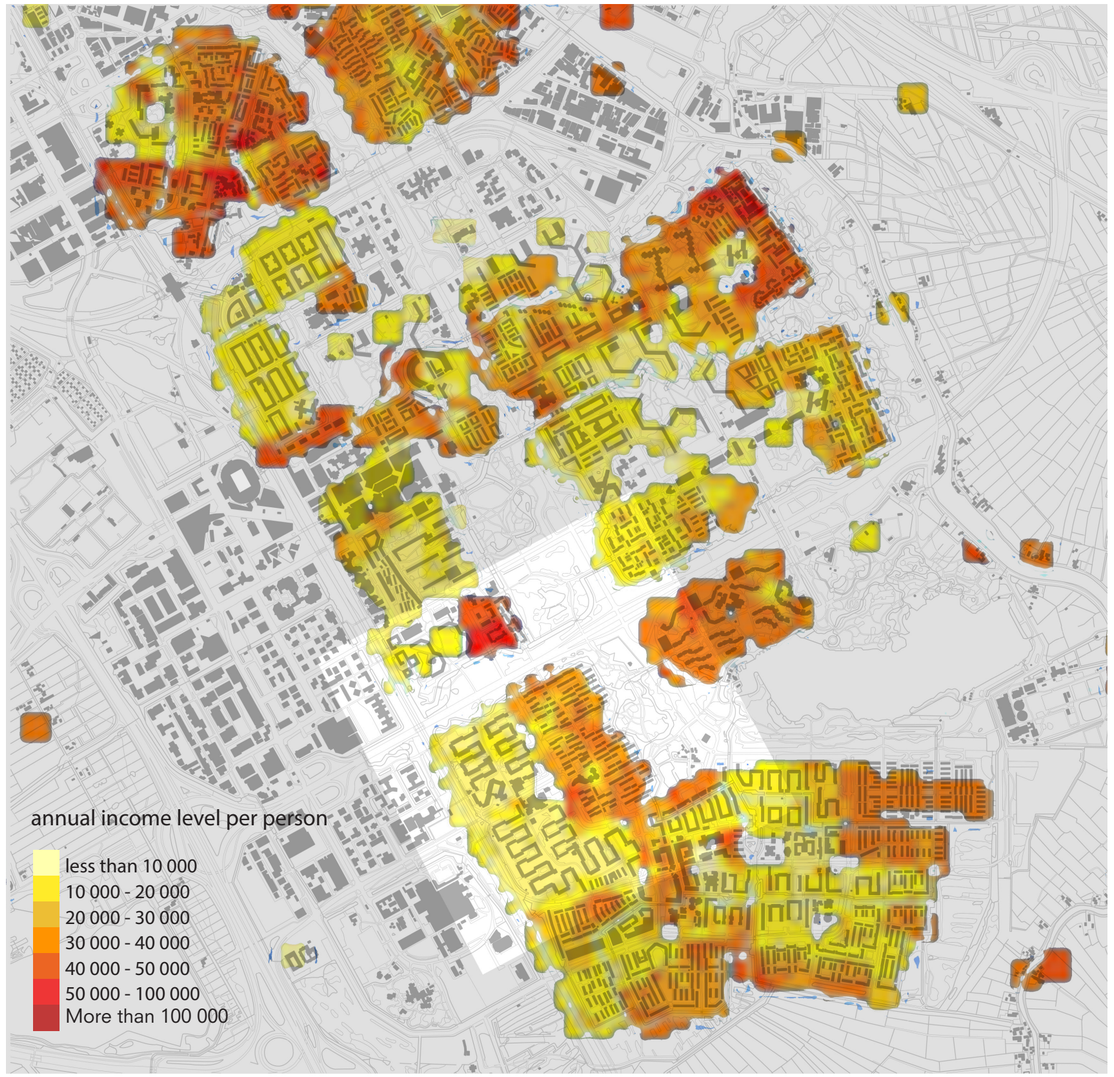
Larger scale of architecture
Larger business scale
More oriented to external demand
More formal





Smaller scale of architecture (More intimacy)
Smaller business scale
More oriented to local demand
More informal

Target Group
Social Sustainability



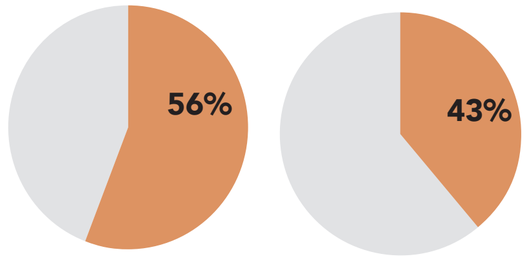
Local Residents

1,000 Reearchers/Scientists

1,500 Student in New AMC Campus

Other Amsterdamer

People living in Social Housing



Low Income Group in Zuid-Oost

23%

Umemployment Rate in Zuid-Oost

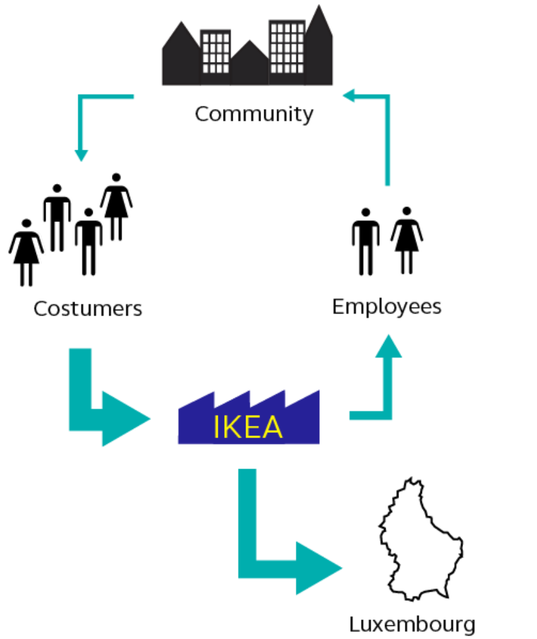
12%

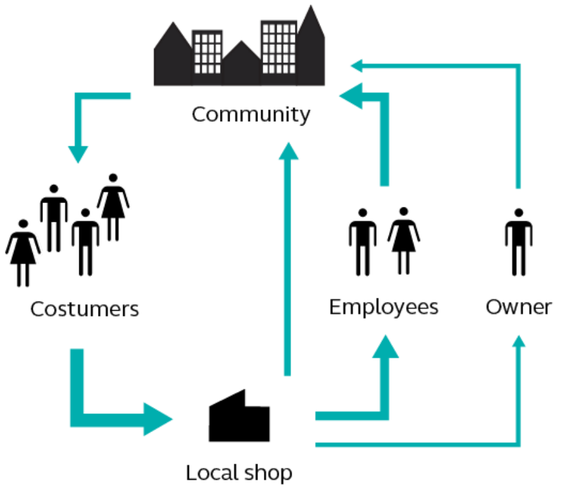
National 5.4%

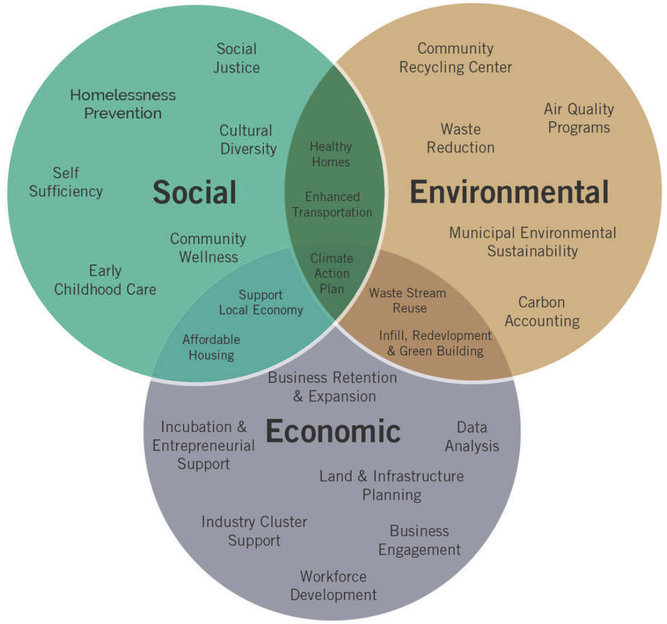


Local Business/ Local Shop

Social Sustainability







Sustainability

Sustainability includes social sustainailibity that the community itslef can be self-sustaining and supportive.

World of Food, Zuid-Oost

Social Sustainability



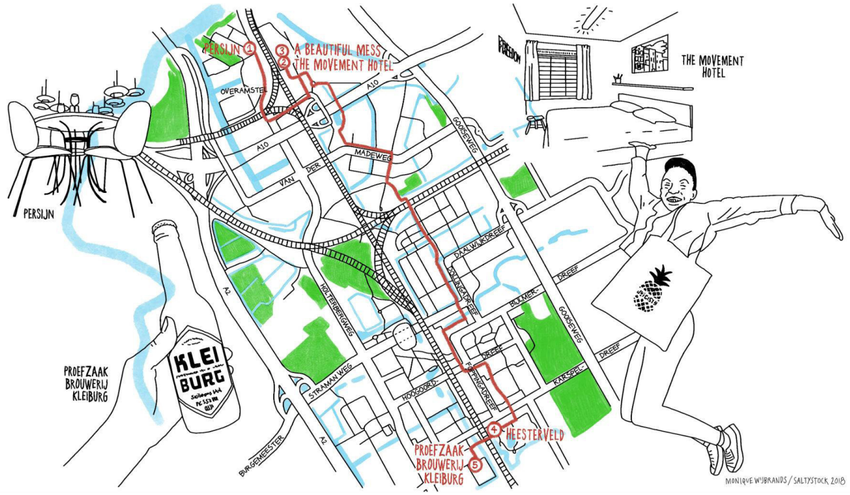


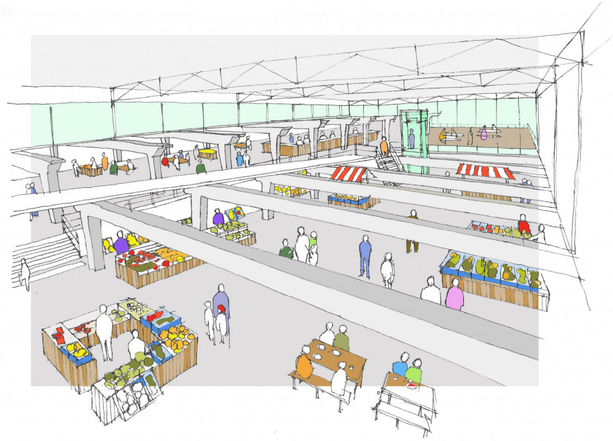






Elements of interaction of people
Local people as owners and make it for living



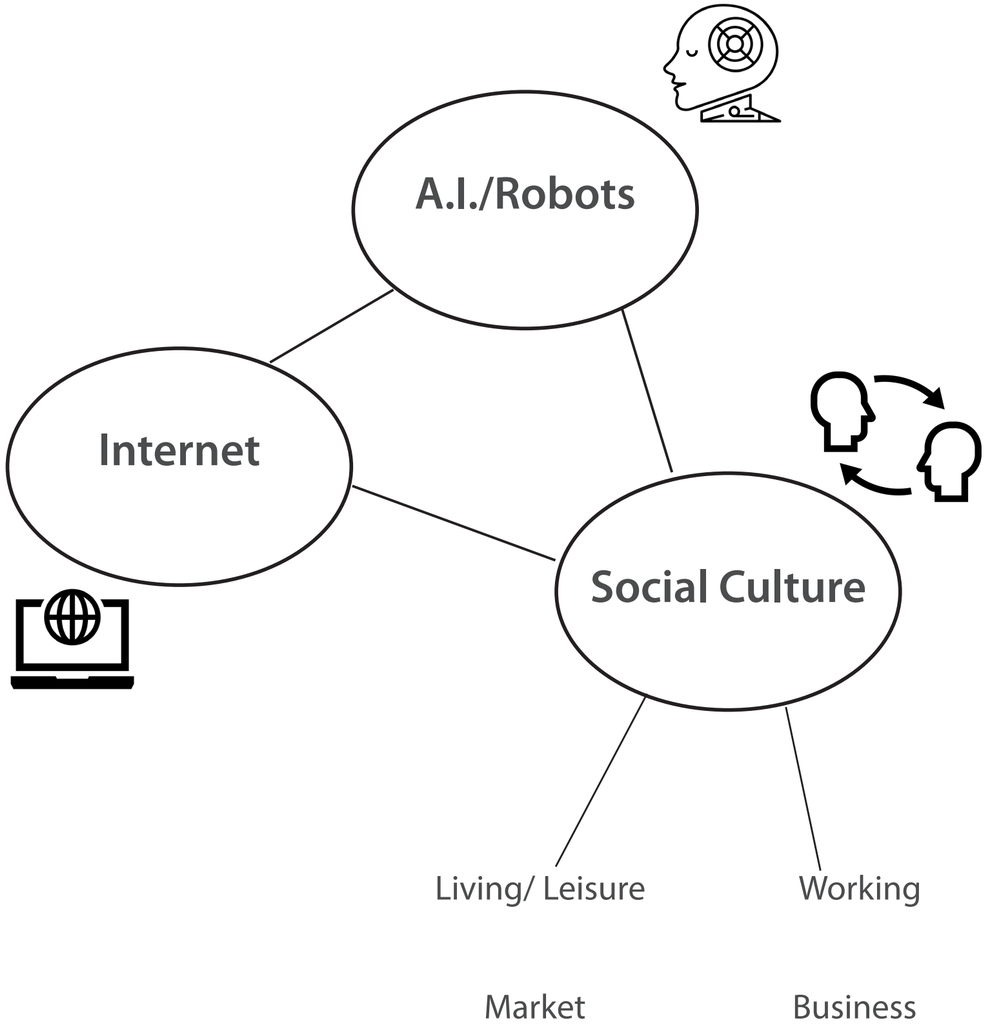


How would the future market look like?

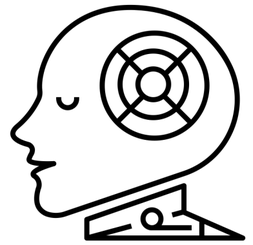
Social Context in the future

Social Context Influencing Business Culture

Future social context



The Rise of A.I./robots



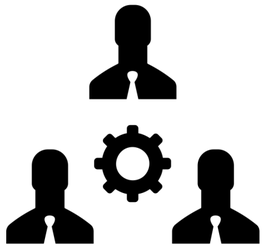
- **Job replacement by robots?**
- Unemployment?
- Basic monthly living allowance?
- More leisure time?
- Inequality - Richer get richer? (The rich have the capital to invest)

The Rise of internet



- **Shops replaced by online shops?**
- **Opprtunities for new business and everyone?**
- Will internet dominate people's leisure time and way of interaction?
- Loss of authentic human interaction and connection?

Cultural and Social Sustainability



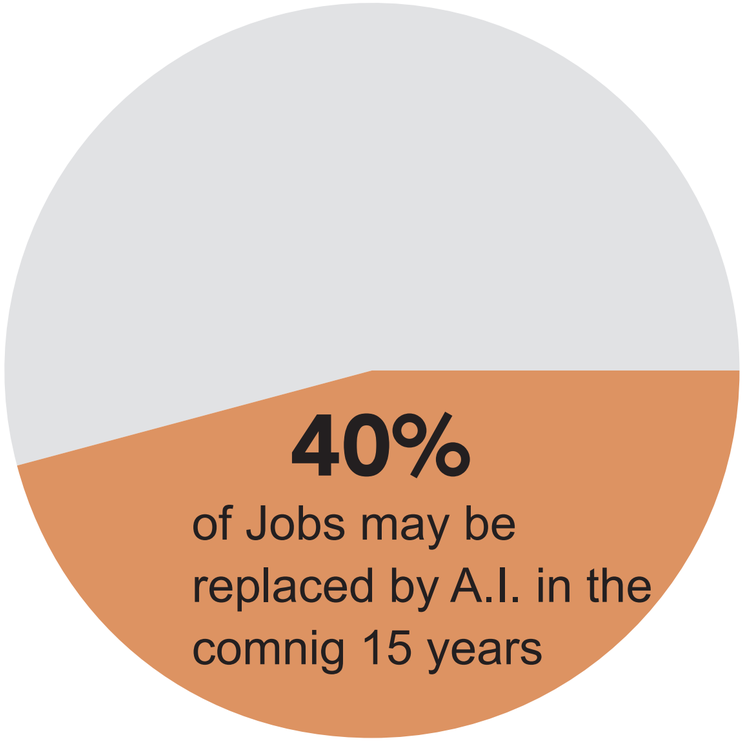
- **What are the social culture of generation Y, Z & Alpha? (Working culture, leisure culture)**
- **Loss of craftmanship (culture) due to robots?**
- Would there still be street shops? (To sustain the idea of a walkable city)
- Where would people meet?
- What are the effects of psychological needs of human? (If no work, no human interaction)

Jobs Replaced by A.I.?

Future social context

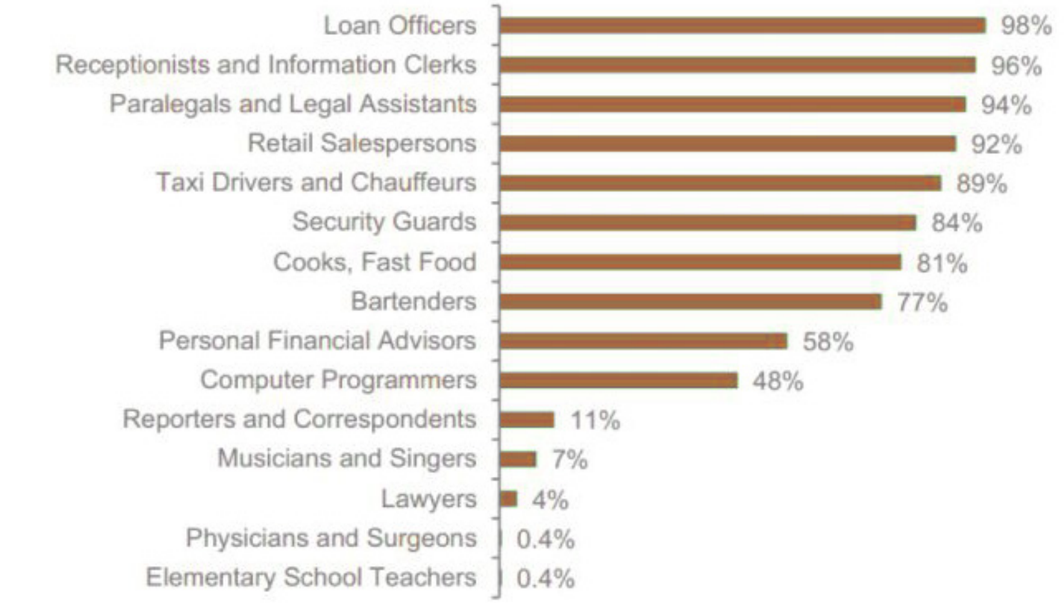
Future Jobs

Future social context



Jobs that have higher risk to be replaced by A.I. are with labour, repetitive and boring tasks...

Exhibit 8: Probability of a job becoming automatable



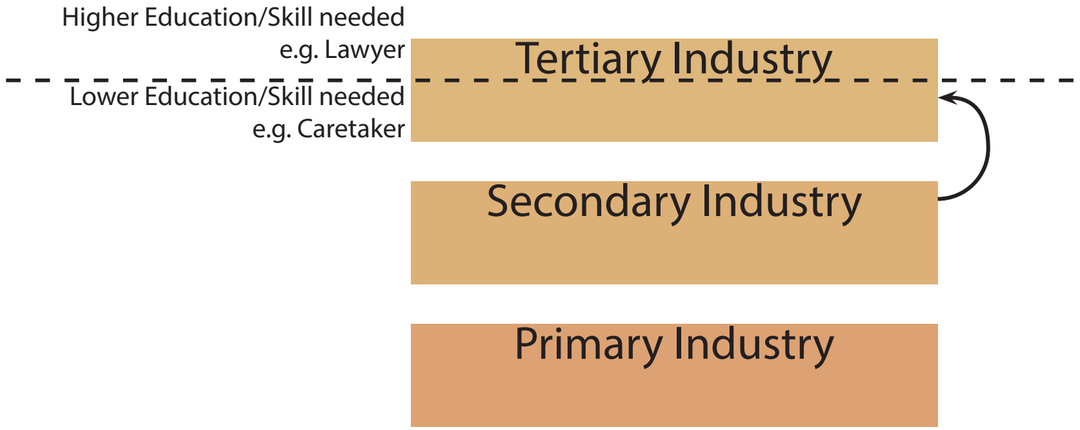
Source: University of Oxford, C.B. Frey and M. Osborne, Morgan Stanley Research
Note: Select occupations ranked according to their probability of becoming automatable,

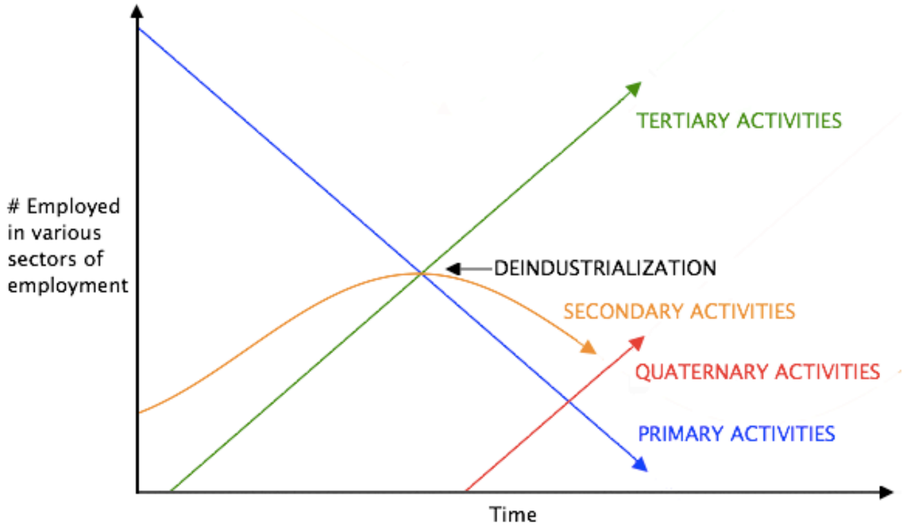
It can be seen that the occupations that are easily replaced are having the following characteristics:

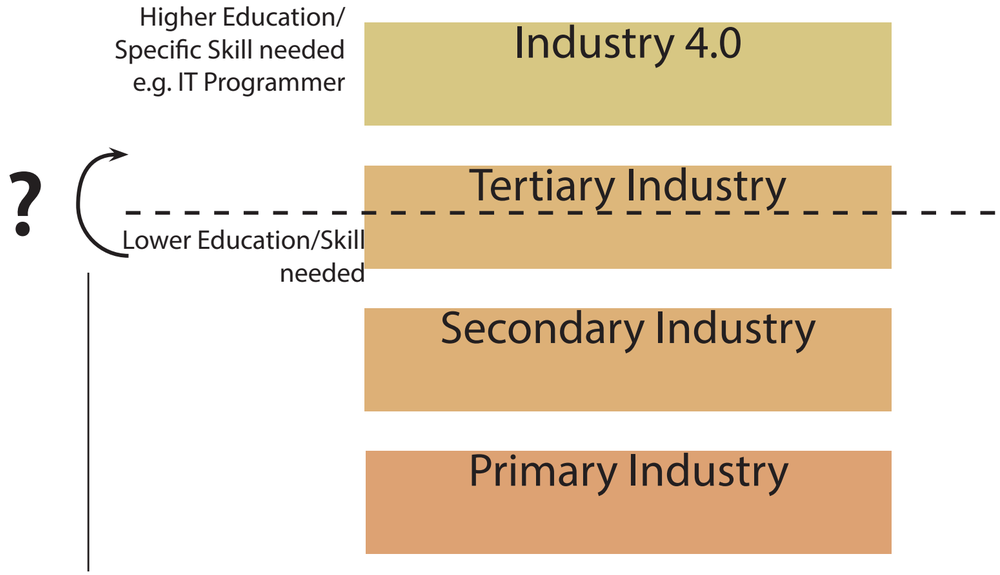
- No need to communicate with the outside world;
- Related to the basics of data/ data analysis;
- Well-defined tasks and rules;
- Mechanized labor

Unemployment due to Change of Economic Structure

Future social context







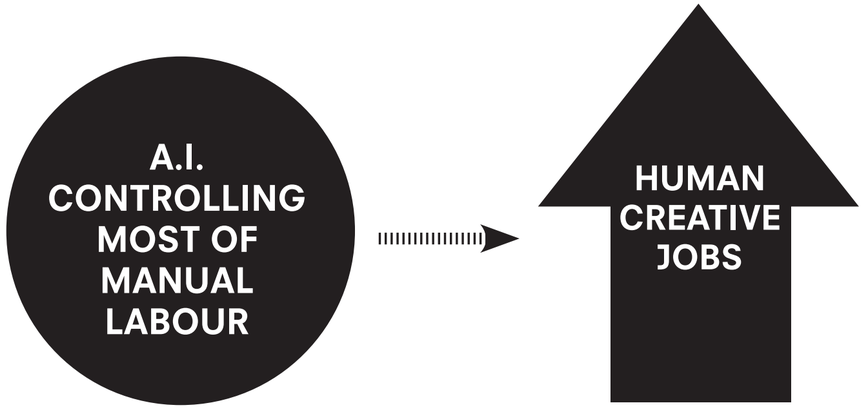
Solution:
For younger generations:
- Education

For generations that already left school:
- re-training
- Apart from re-training...

Can the disadvantaged fit into the innovative Industry in Amstel III?

Unemployment due to Change of Economic Structure

Future social context



A.I. and technology could not replace all human qualities but we need to be adaptive and adjust ourselves...

5 Aspects of Human that cannot be replaced by automation

Ability to cooperate with machines

Creativity

Creactivity is still the unique feature of human kind.
e.g. News reporter can be A.I. but will not be able to write a unique article with the observation and view by a human reporter.

Communication and Interaction Skills

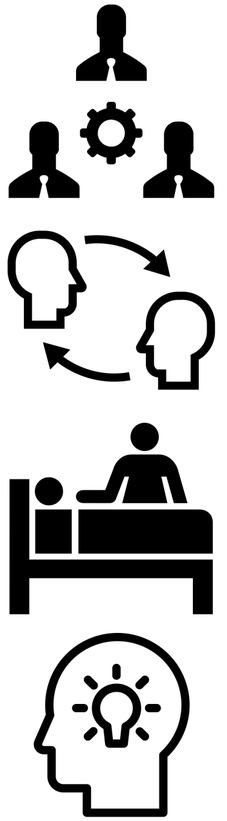
A.I. cannot replace the real and deep-inside interaction between human (at least in the near future).
e.g. A tour guide may not be replaced if he can offer a humane and unique and charateristic travel experience.

Management and Decision Making

CEO is one of the least possible jobs to be replaced by automation.

Ability to learn and adapt

A.I. needs to be granted information and database from human to learn but we do not.





+



Combination of Technology and Human Service

Future social context

Example 1: Fashion

Technological Part

- VR experience of dressing
- Online shopping
- Big data for analyzing customer preferences

+

Human Part

- Stylist Consultant
- Salesperson deicated for customer relationship (customer loyalty)
- Display Sytem Manager
- Fashion Designer

Example 2: Car

Technological Part

Production:

- Mass-production for mechanical part

Sales:

- Big data for analyzing customer preferences
- VR experience of driving

+

Human Part

Production:

- Man-made interior details (craftmanship) Car-designer

Internet -
1. Online Shopping - Delivery
2. New Power to people?

Future social context



Source: Statista, e-Commerce Netherlands, User in millions

eshopworld

Power of the New Social Class

Future social context



Power of New Social Class (Non-traditional elite)

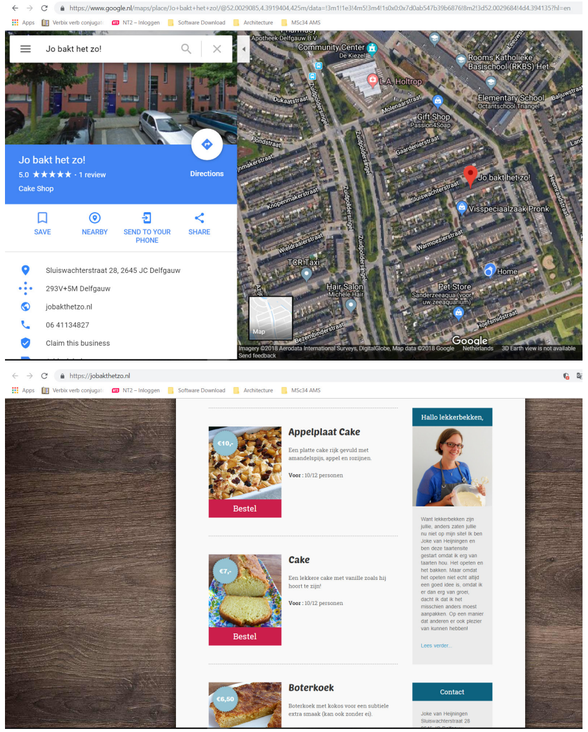
- Individuals can also influencers Youtuber
e.g. Internet singers, game streamers, “Key Opinion leaders”

- the rise of the “Me-centered society”

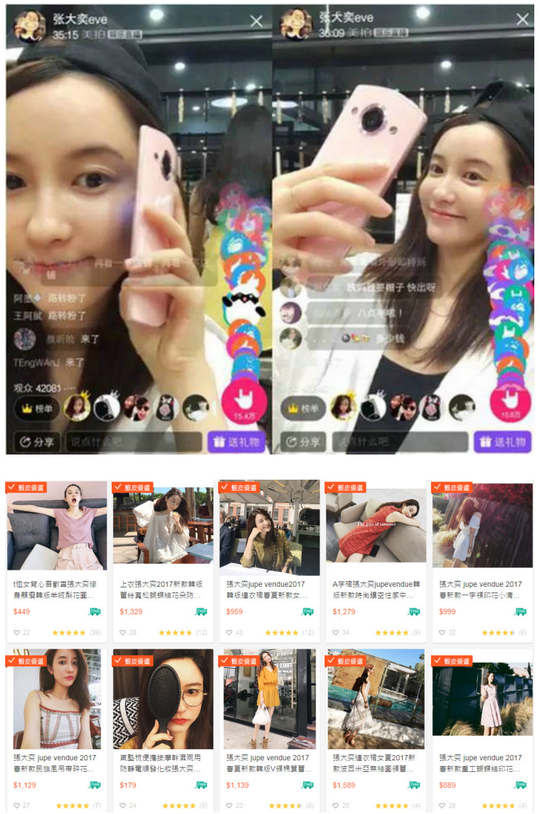
- But individuation does not mean isolation;

- Instead, social relationships are being reconstructed on the basis of individual interests, values, and projects.

- Online community is formed by like-minded people



- Little capital needed to start



- Live streaming and interacting with audiences

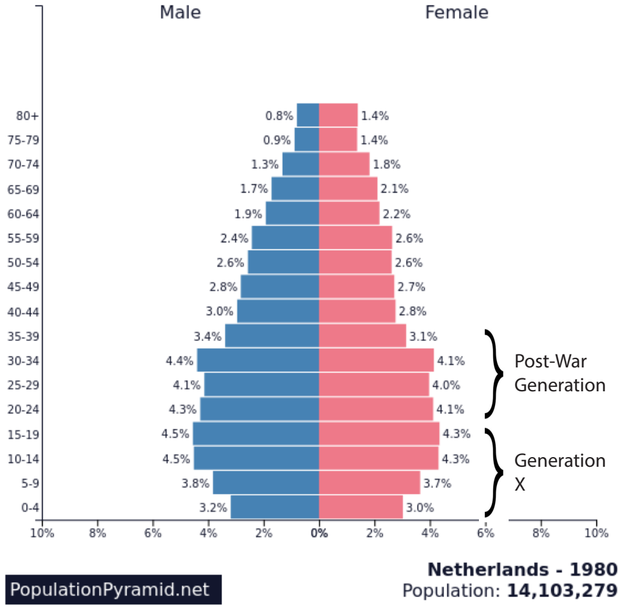
Threshold of starting public opinions, campagins or (small) business is much lower and the power to compete with traditional power/ big brands...

What do the future generations want?

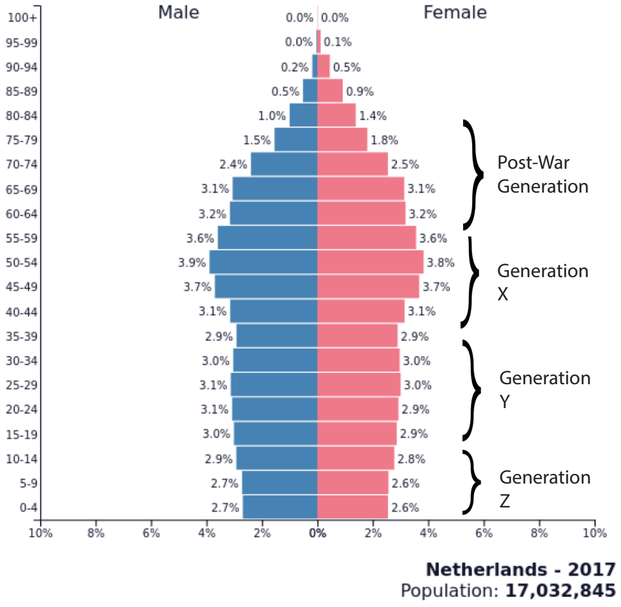
Future social context

Characteristics of Gen Z, Alpha

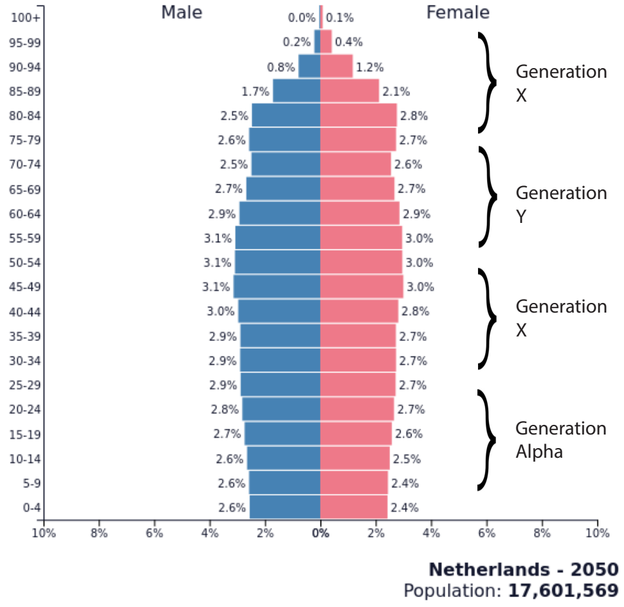
Future social context



Netherlands - 1980
Population: **14,103,279**

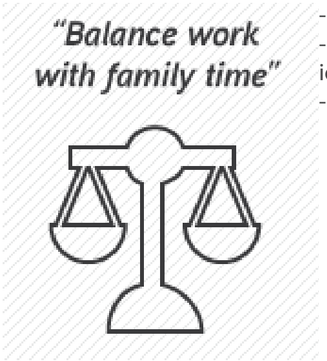


Netherlands - 2017
Population: **17,032,845**



Netherlands - 2050
Population: **17,601,569**

Generation X



- Top revenue builders
- More willing to follow senior management
- Best workers overall

Generation Y



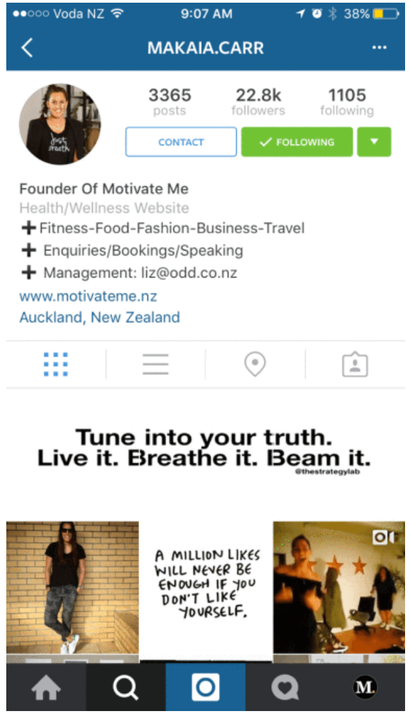
- Independent
- Less of a team player compared to Gen X
- More specalitists in specific areas

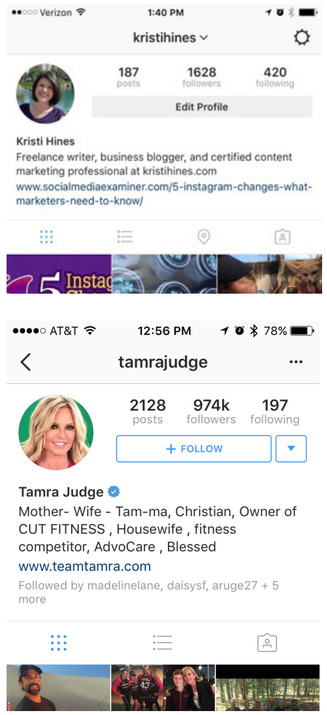
Generation Z



- Wish to be entrepreneurs
- Tech experts
- Digital natives







Slash Generation - Gen Y/Z

Future social context

8 Seconds
Attention Span

60%
Want to change the world (Compared with 39% of millennials, Gen X)

75%
Want to convert hobbies to full time jobs

61%
would rather be an entrepreneur than an employee when they graduate college

72%
high school students want to start a business someday

70%
watch 2 hours of youtube per day

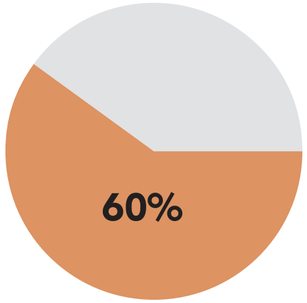
2x
as much as many videos on mobile as any other demographic

Gen Z has global aspirations

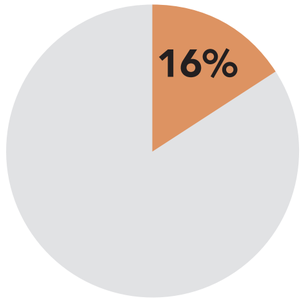
Gen Z are more ambitious, eager to start business, try different things, care about their own interests and to change the world.

Gen Z Shopping Preferences

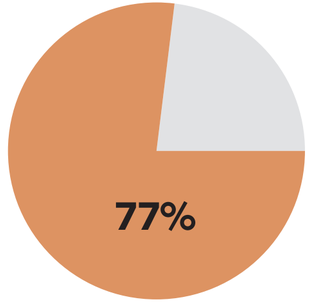
Future social context



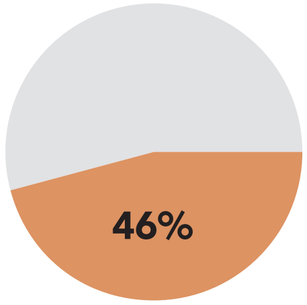
60% of Gen Z shoppers prefer to puchase in stores



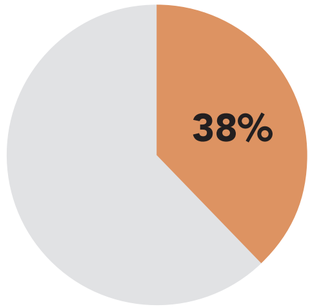
Only 16% shop at a single store for clothing/fashion
For older millennials: 26%



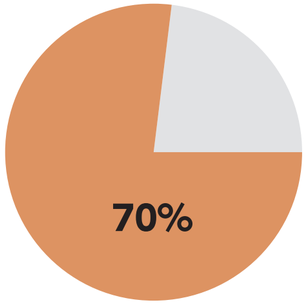
46% will check in store to get more infomration before making an online purchase



77% of Gen Z respondents said that shopping at brick-and-mortar(phyiscal) store is their preferred channel



38% shop at a single store for groceries
Older millennials: 55%

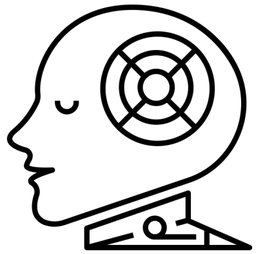
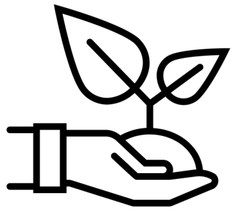


Almost 70% Gen Z shoopers say they have that they have written review. 40% say they give feedback often.

"Brick and mortar" shops still be important despite of online shopping...

Summary of Future Trends of Business/ Market

Future social context

	Suspicions	Adaption
 **Technology** A.I., Big data etc.	Job replacement by A.I. and other technologies?	A.I. can only replace repetitive tasks but still cannot replace creativity, authentic human interactions; but human part need to evolve and work together with technological part.
 **Internet**	The power of internet? Online shopping replace phyiscal stores?	Opportunities/ Easier environment for Small Business; Online shopping would co-exist with phyiscal stores
 **Generation Y/Z**	Can phyiscal store be ignored? Loss of craftmanship?	Combining online shopping together with physical store with experience and try What new shopping technology cannot replace: 1. Carefully and detailedly customized products 2. Highly interactive and personalized service 3. Brand image and brand loyalty

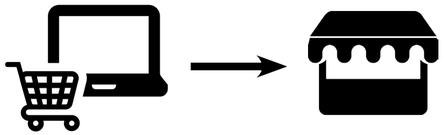
Big Coporations Adapting the New Trend

Future social context

Amazon



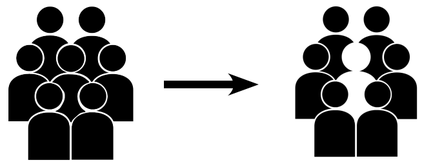
Physical Store open in 2018
Marketing:
- Branding
- Street store as advertisement



Nike



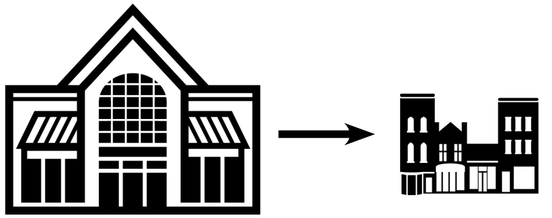
Personalized and unique pattern as requested by customers



Ikea

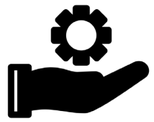


Smaller street stores that are closer to city centres with VR display



Concluded Strategy

Future social context



Personalization/ Uniqueness

+



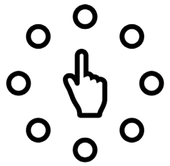
Interactive Display Experience

+



Personal Service

+

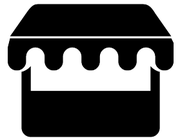


More Varieties/ choices



Online Shop

+



Phyiscal Shop
(Smaller in scale)

Architecturally...

More shop space for creative/customized production
More flexible space for interaction, services and experience
More shops with smaller shop sizes

What Market?

Apart from daily groceries,

1. Creative Market for Craftmanship
2. Last Mile Delivery Market



Creative Market for Craftmanship

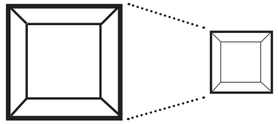
Sustainable Production and Market Cycle

Small Business and Production

Creative Market for Craftmanship

MANUFACTURING COMPANIES WITH ONLY ONE OR VERY FEW EMPLOYEES ARE INCREASING

VERY SMALL MANUFACTURING SPACES:



350.000 COMPANIES



WITH ONLY ONE EMPLOYEE



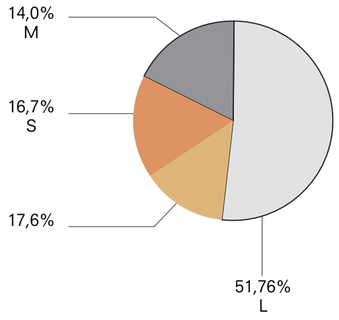
17% INCREASE WITHIN A DECADE

GROWTH 2000 - 2010

SIZE OF ENTERPRISES BY EMPLOYEES

U.S:

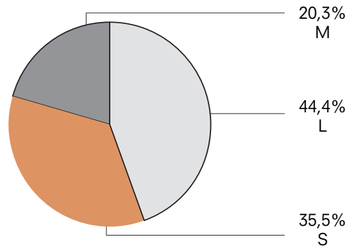
LARGE (500+)	51,6%
VERY SMALL (>20)	17,6%
SMALL (20-99)	16,7%
MEDIUM (100-499)	14,0%



SIZE OF ENTERPRISES BY EMPLOYEES

THE NETHERLANDS:

44,4% LARGE (250+)
35,1% SMALL (0-49)
20,3% MEDIUM (50-249)





Coporations
Standardization



Small Business
Craftmanship/ Personalization









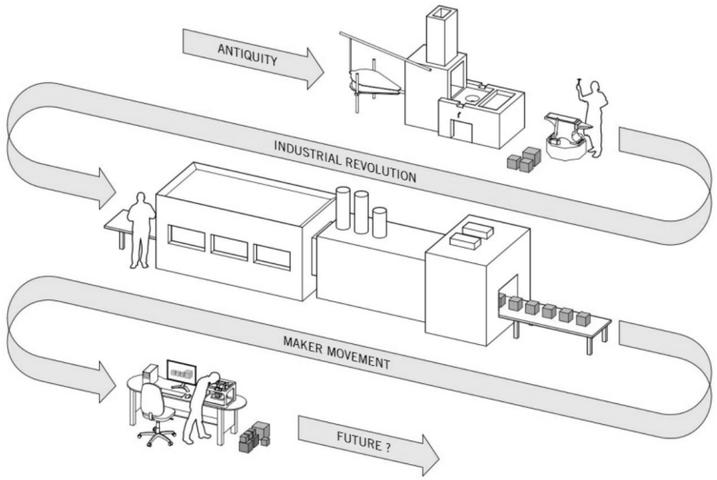




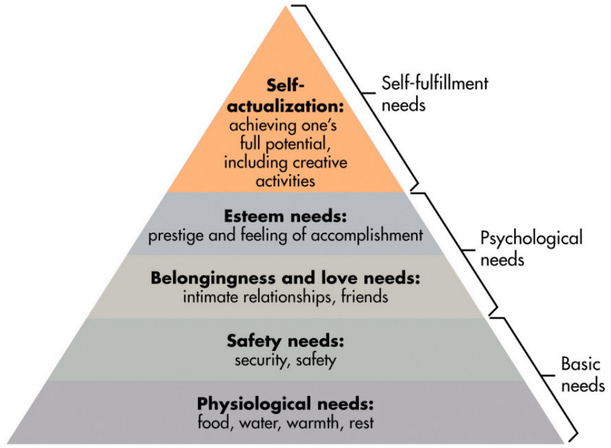
Self-fulfillment Mass Personalization

Creative Market for Craftmanship

Industrial Age



Digital Age



Industrial Age



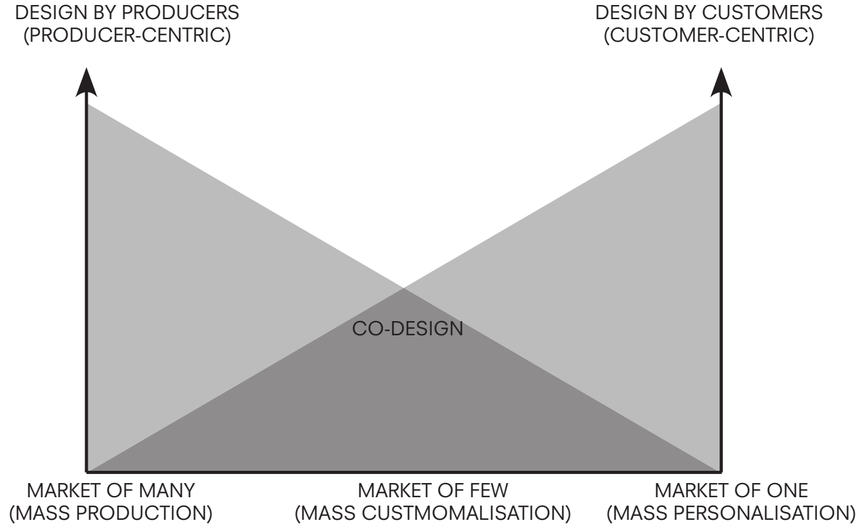
Industrial Age

Mass Prodcution
Economics of Scale
Fulfill basic needs



Digital Age

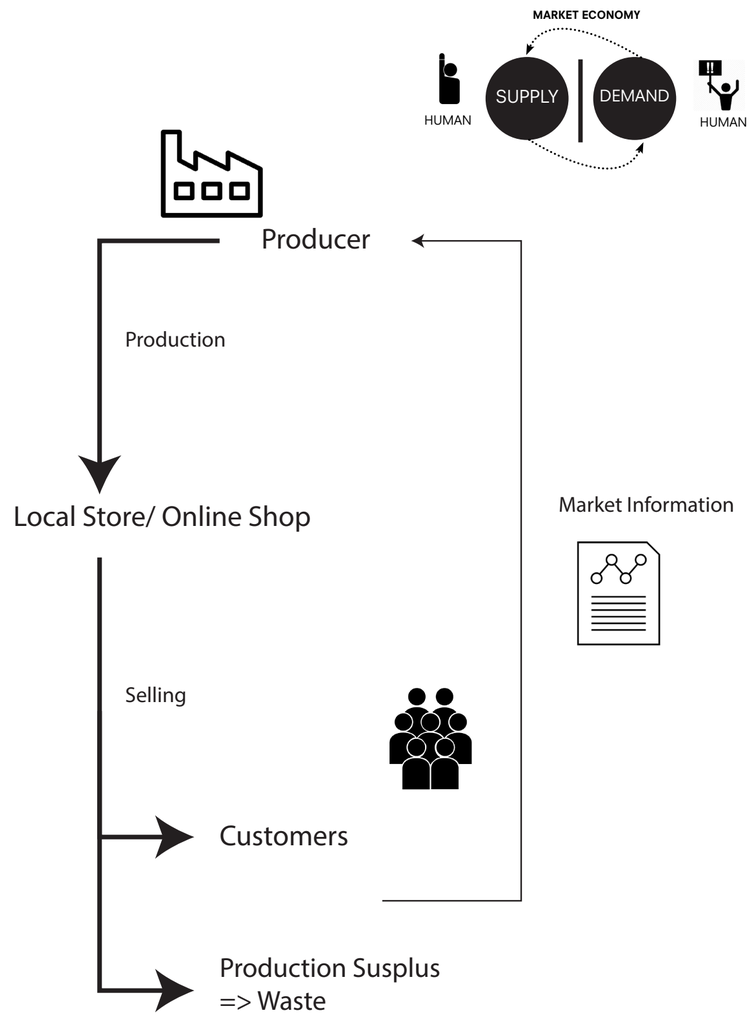
Individualization
Self-fulfillment needs





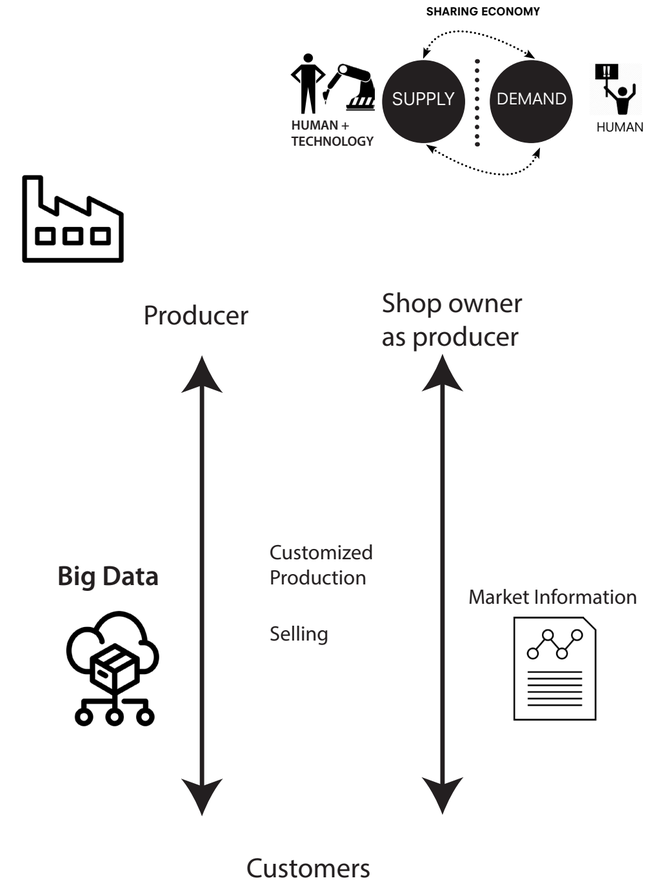
Flow of Market Information

Creative Market for Craftmanship



Overproduction and overconsumption

Old model of production and consumption

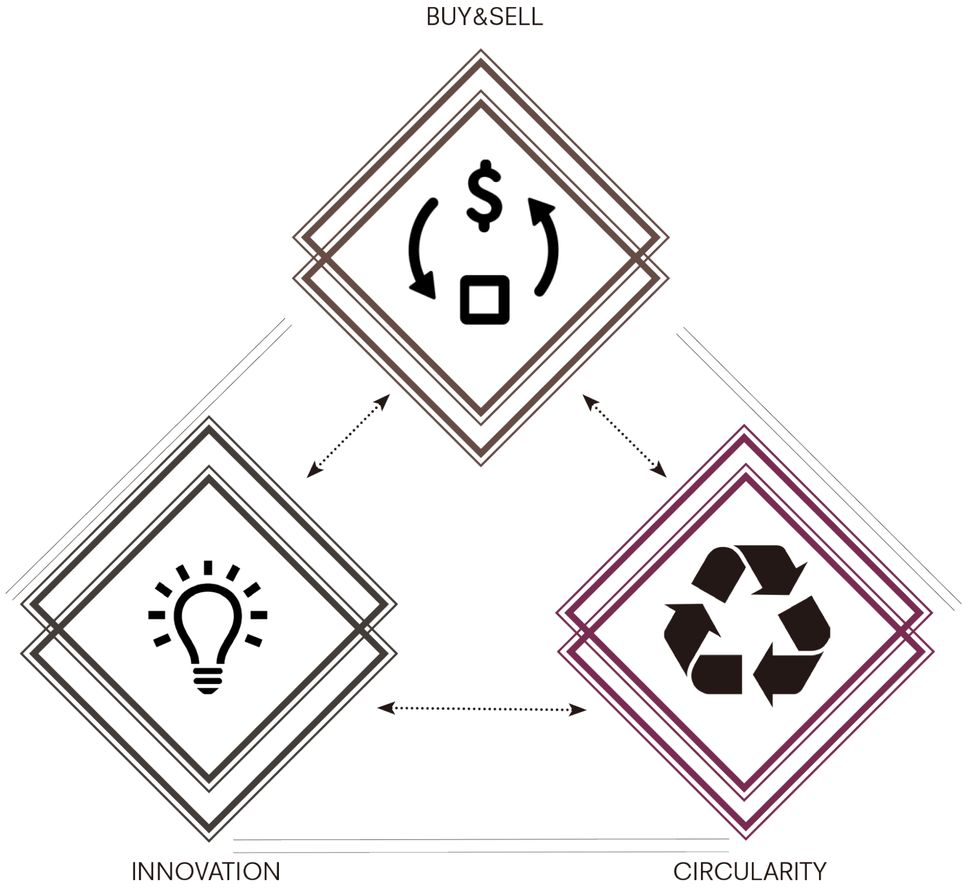


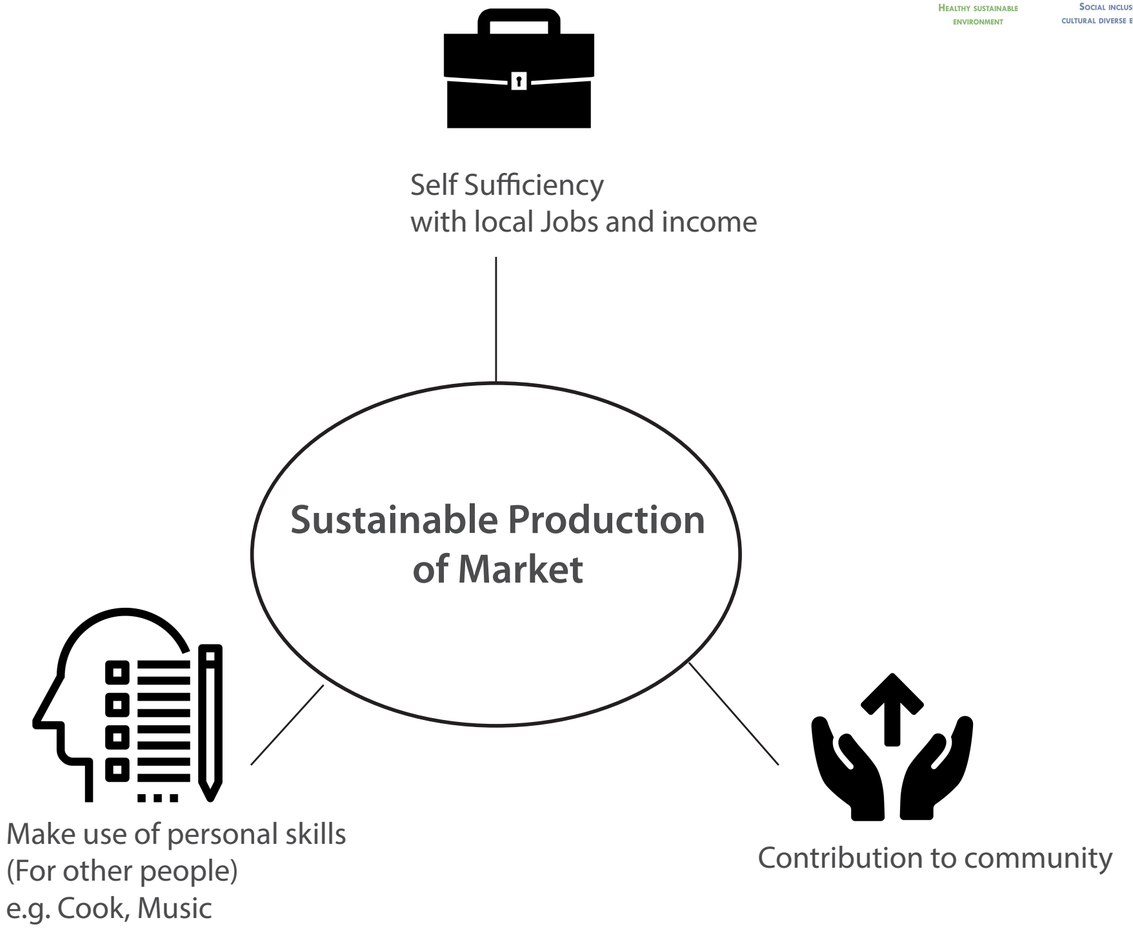
Effective and precise production

Old model of production and consumption

Sustainable Production and Consumption Cycle

Creative Market for Craftmanship





Last Mile Delivery Market

Delivery of Online Shopping

Last Mile Delivery

Numbers Of Parcel Delivery

1 BILLION
Increase in U.S. Parcel traffic from 2015 to 2016

8.95 BILLION
Number of parcels delivered worldwide

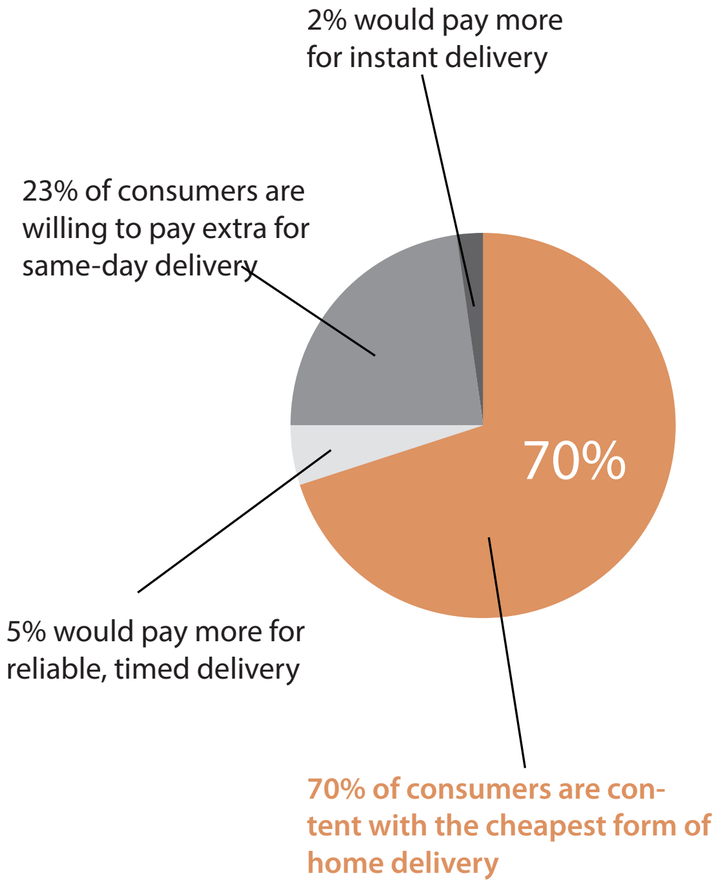
93.1 BILLION
Projected market size for parcel delivery in the U.S.by 2019

46.8%
Number of retailers and manufacturers investing in logistics services

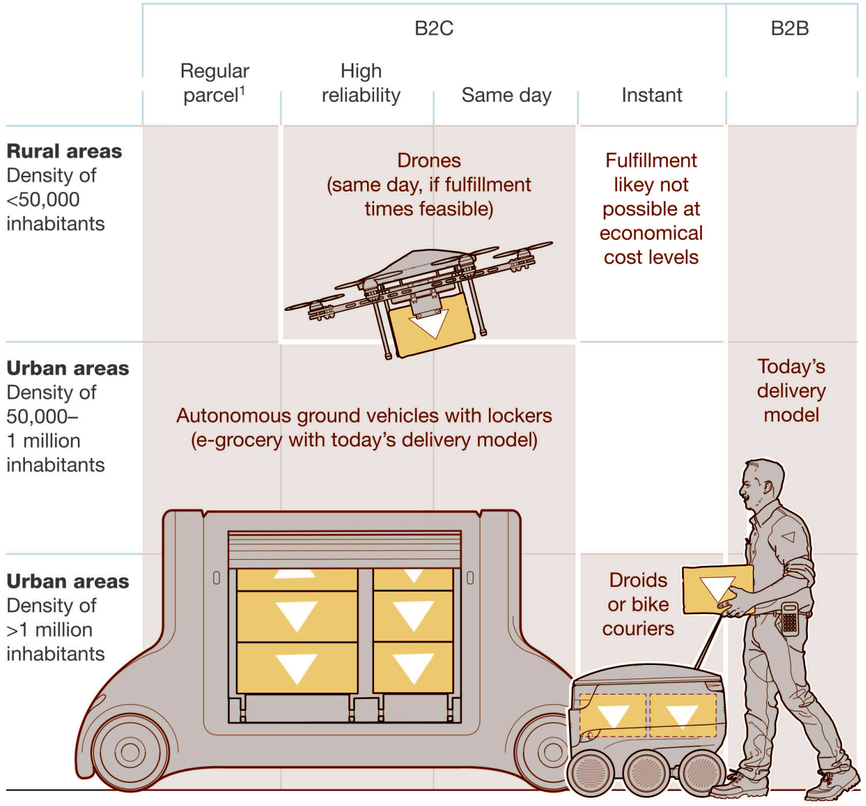
48.4%
Percentage of brick and mortar retailers with distribution roles

€4
The amount online shoppers in the U.S. are willing to pay for shipping

Delivery-Model Customer Preferences, %



Available delivery options, by density of locale



[1]Parcel delivery between one day after drop-off and four days after drop-off.

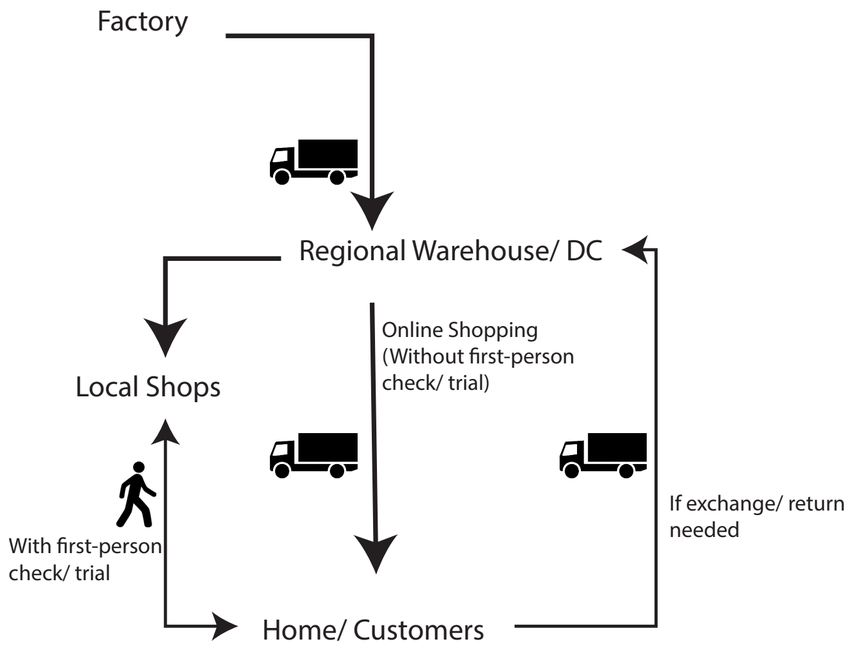
McKinsey&Company

Both retailers and customers prefer the cheapest delivery method...

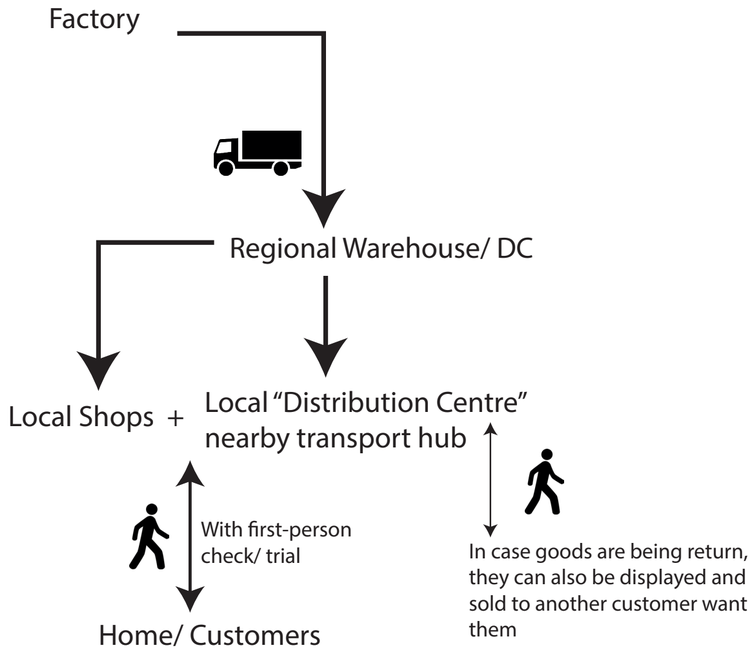


Last Mile Delivery with TOD Walkable City

Delivery return - flow/ circulation of goods



Ordinary Delivery Model



"Delivery" Model for TOD walkable city - "Take it yourself"

Market Typology Study

TIMELINE SHOPPING TYPOLOGY



1st built Covered market Grand Bazaar in Istanbul



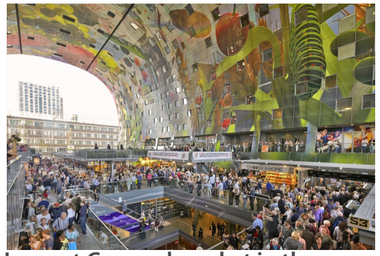
1st Shopping Arcade in St. Petersburg



First Supermarket in Queens, New York



Modern Department Store



Largest Covered market in the Netherlands

1500 — 1785 — 1849 — 1922 — 1930 — 2014 — 2015



Trajan's Market, Rome



Market in Africa



Typical shopping streets in Europe-an City Centres



First Department Store in London



First modern shopping mall Kansas City, U.S.

Regenerating deadmall to shopping street, Belmar, U.S. 2015



Belmar, U.S. 1985





Belmar, U.S. 2015

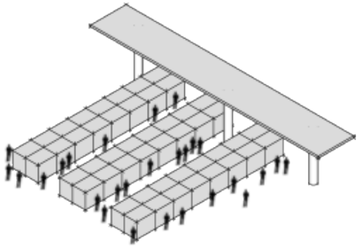


Shopping Typology

Market Typology Study

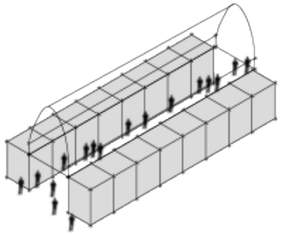


Open-air Market



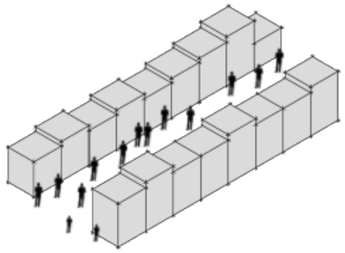


Covered Street



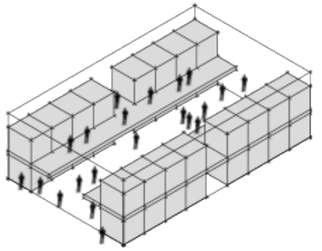


Open Street



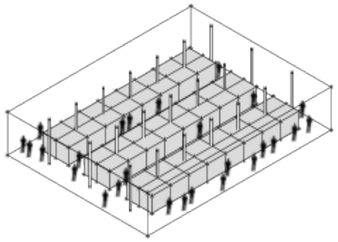


Modern Shopping Centre/ Indoor



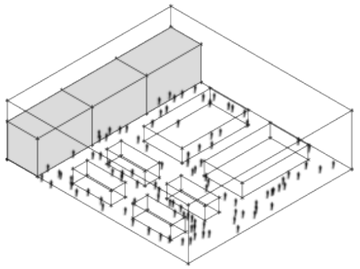


Covered Market





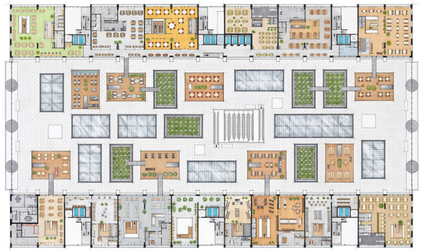
Box/ Indoor

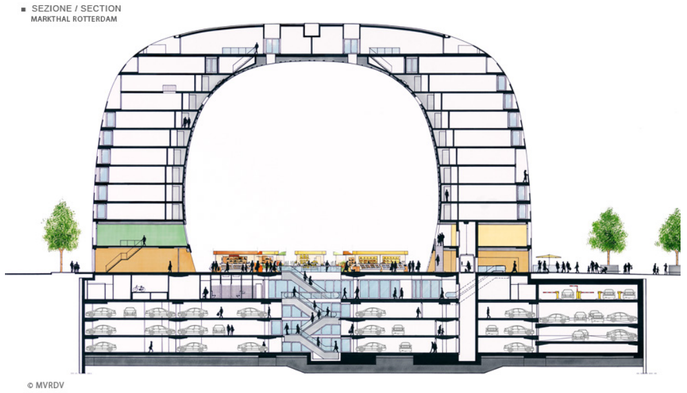


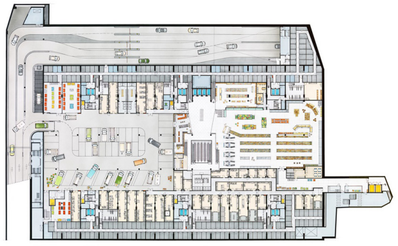
Markthal, Rotterdam





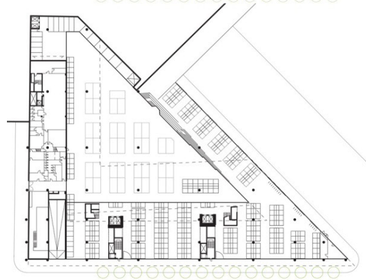


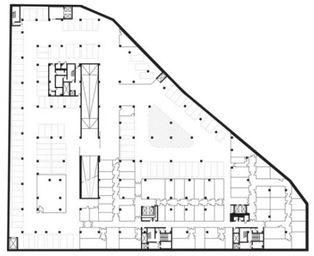




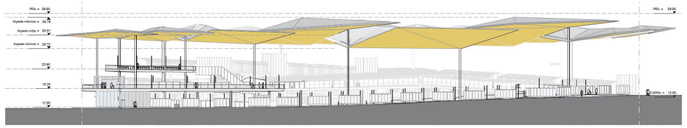
Encants Bellcaire Flea Market, Barcelona













Program Design Brief

Program Brief

Experience



- Workshop
- Displaying/ Fitting/ Tasting
- Watching

Delievery



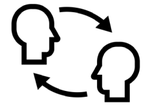
- Storage
- Display/ trial
- Second-handed/ Recycle

Mobility



- Interesting to walk
- Autonomous Sharing-cars Parking

Communal Interaction/ Social Participation



- More shops in smaller sizes
- Everyone can sell and exchange goods
- Community Discus-sion/ meeting/ forum

Program Brief

Total GFA: 36,250 sqm.

Market Place/ Food

- Open Kitchen
- Shop Spaces 50 Stores

Total: 8,500 sqm.

Market Place/ Handicraft

- Workshop+Shop Unit
- Shop Spaces 50 Stores

Total: 5,000 sqm.

Communal Space

- Community Forum
- Common space for shop owners
- Temporary Function/ Festival Space/ Flea Market

Total: 10,000 sqm.

Online Shopping Delivery/ Distribution

- Product Display and Trial
- Second-hand Exchange Centre
- Goods Storage
- Goods loading/ Unloading

Total: 1,000 sqm.

Mobility/ Access

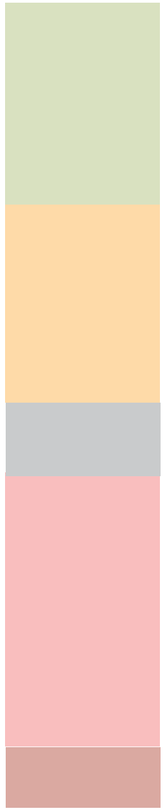
- Autonomous Sharing-cars Parking (200 Cars)
- Bike Parking (5000 Bikes)
- Goods Loading/ Unloading
- Station Lobby

Total: 9,800 sqm.

Information/ Display Technology/ Support

- Goods Storage
- Service Counter

Total: 1,900 sqm.



Market Place (Food)

Program Brief

Social inclusive and cultural diverse environment

Lively mixed urban area







Open kitchen/ Visible back of house
(Customer can see the cooking process)







Night Market
Event/ Performance Space

Market Place/ Food

Open Kitchen

Shop Spaces
50 Stores

50 Food Stall
1,500 sqm.

20 Shops
(Formal Bakery/ Cafe/ Restaurants)
7,000 sqm.

Total: 8,500 sqm.

Open space for 150 stalls of Flea market

Market Place (Creative Production)

Program Brief



Workshop Space (Front of House)

+



Display Space (Front of House)

Market Place/ Handicraft

Workshop+Shop Unit

Shop Spaces
50 Stores

50 Workshop Stalls
3,000 sqm.

Anchor Retail Shops (Brand Chain Stores)
2,000 sqm.

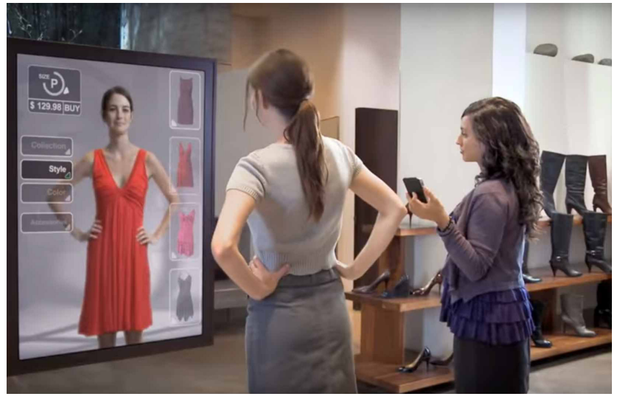
Total: 5,000 sqm.

Open space for 150 stalls of Flea market

Online Shopping Distribution

Program Brief







Delivery Pick-up Locker

Trial Before Take Away
Consultant Service

Walkable Distance
back home

Customer Service
Exchange if needed

Online Shopping Delivery/ Distribution

Product Display and Trial	Second-hand Exchange Centre
Goods Storage	Goods loading/ Unloading

Distribution Centre with Pick-up Lockers
200 sqm.

Product Display and Trial (General products)
200 sqm
(Specific products to the street stores nearby)

Second-hand Exchange Centre
100 sqm.

Storage
500 sqm.

Total: 1,000 sqm.

Communal Space

Program Brief



Space for festival/ temporary market/ event



Space for public forum



Common space for shop tenants



Included in interior circulation space
10,000 sqm.

Total: 10,000 sqm.

Public Space
(Covered as semi-outdoor space)

Mobility
Program Brief



Sharing Pods

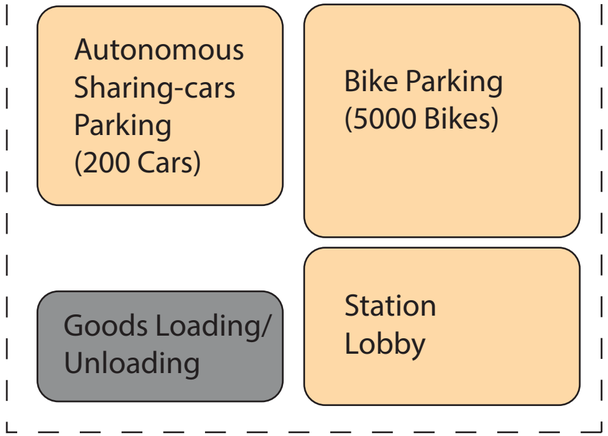




Underground Bike Parking

Mobility/ Access





Station Lobby (Not including shops)
6,000 sqm.

Carpark (50 Private Cars)
250 sqm.

Carpark (200 Sharing Cars/ Pods)
2,500 sqm.

Parking for 5,000 Bikes
1,000 sqm.

Goods Drop-off
100 sqm.

Total: 9850 sqm.

Service/ Support Space

Program Brief

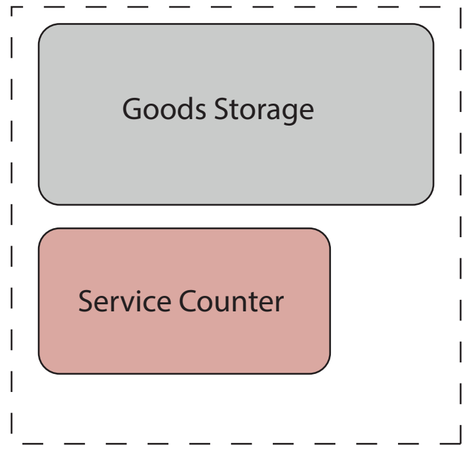


All tenants can ask for support for high technical support for display and data management



Automatic Metro/ Traffic Control Centre

Information/ Display Technology/ Support



Storage
1,500 sqm

I.T. Service Support Centre
100 sqm

Building Services
300 sqm

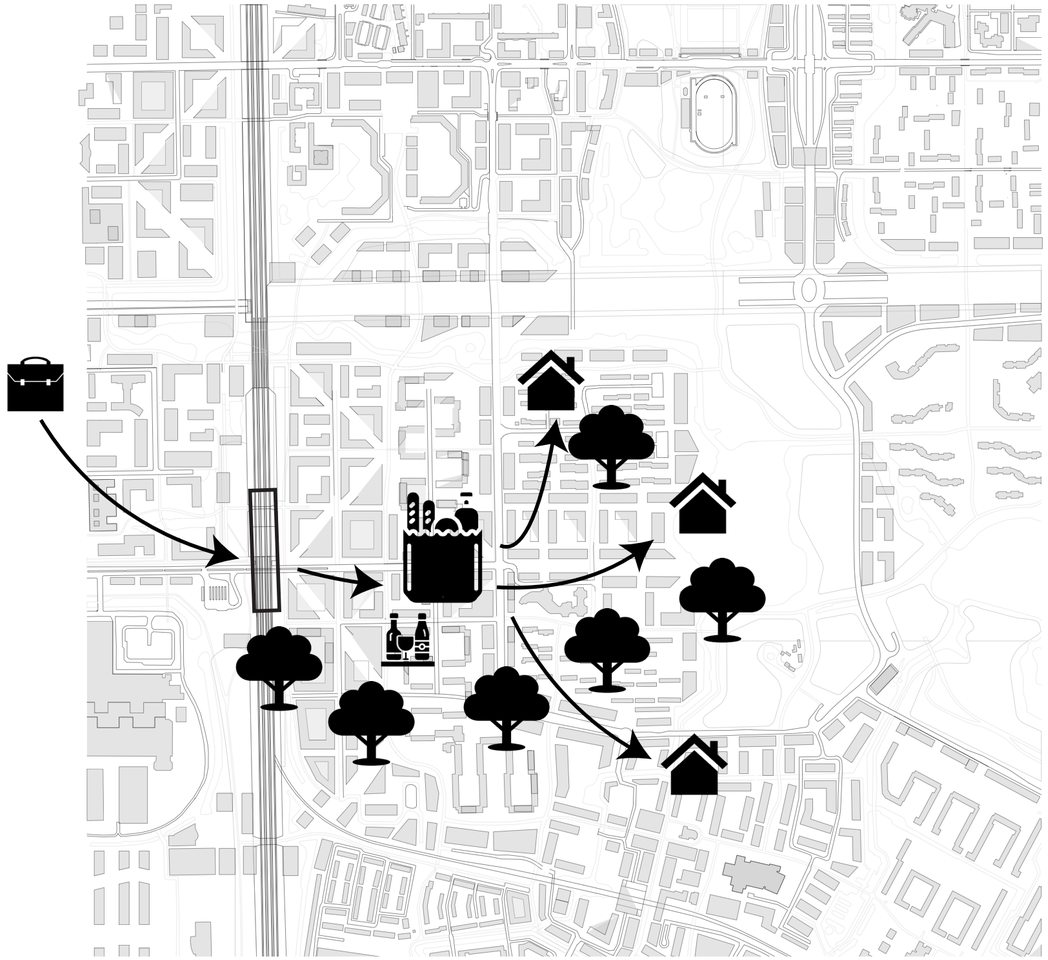
Total: 1,900 sqm

Ambition of the Market

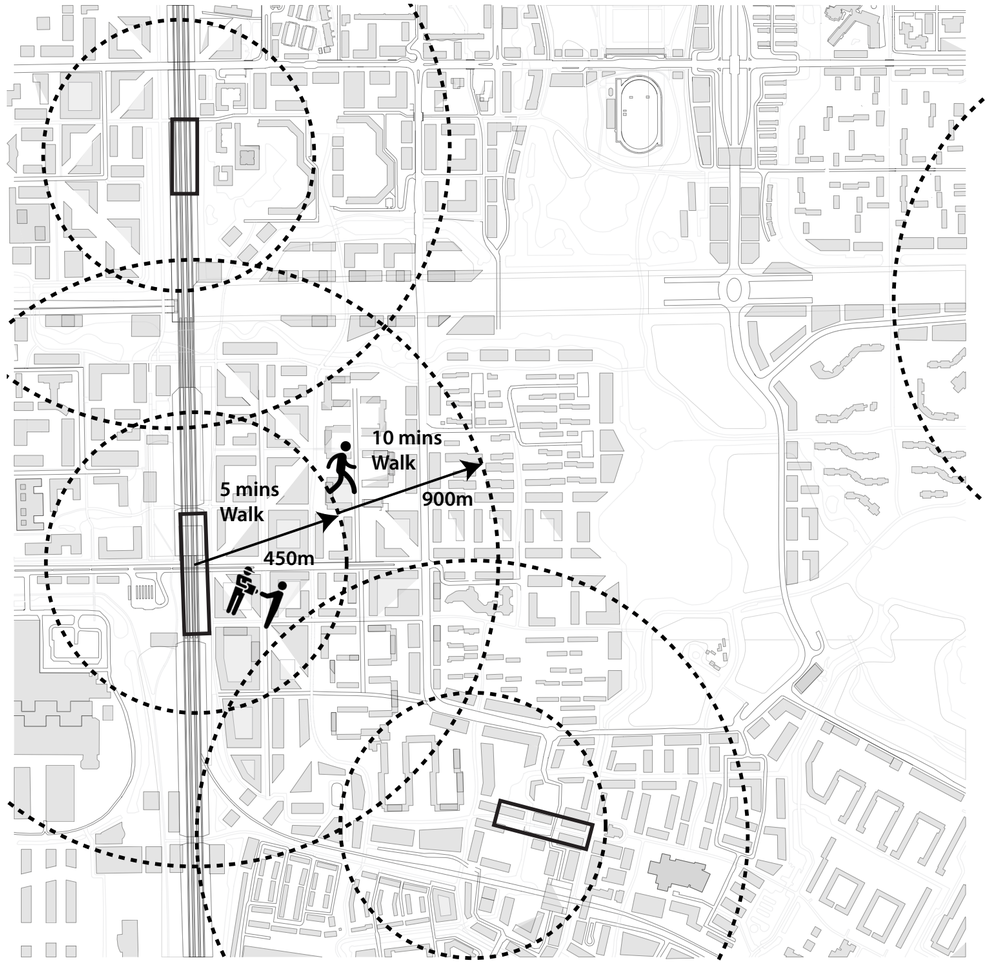
Shaping Living Style of TOD "Last Mile"

Ambition





Living Centre and Self-sustained Neighbourhood



Walkable Distance from Transport Hub

Urban Vibe VS Green Vibe

Ambition



GREEN

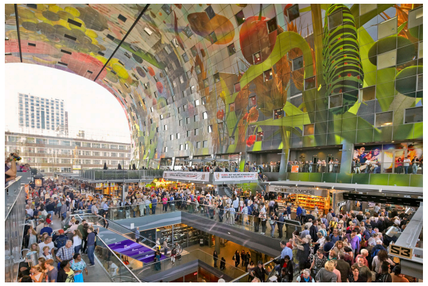
+



VIBRANT URBAN LIFE

Variety
Ambition





PERMANENT MARKET

+



TEMPORARY MARKET

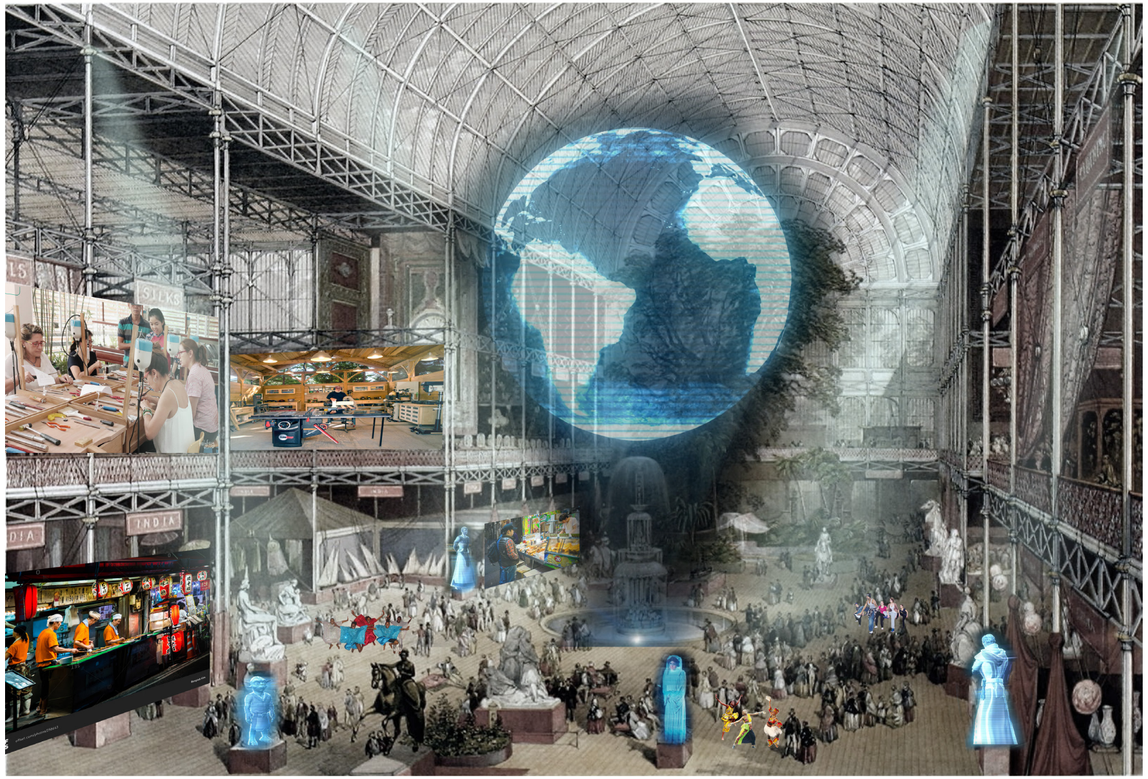
+



GREEN PUBLIC SPACE

Technology and Human

Ambition







TECHNOLOGY





HUMAN TOUCH

HOLENDRECHT STATION STUDY






ZONE 30
HEMUBO

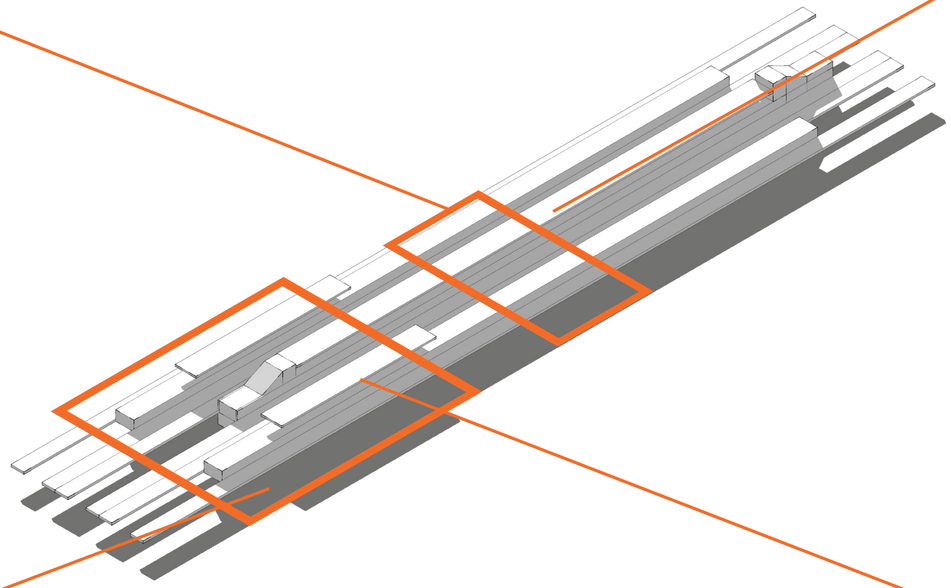
Holendrecht Station Study

Site Study






Motorway Underneath








Platform Level

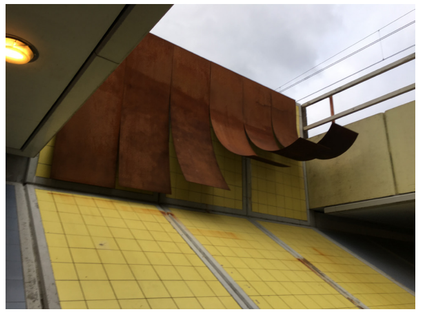
Holendrecht Station Study

Site Study

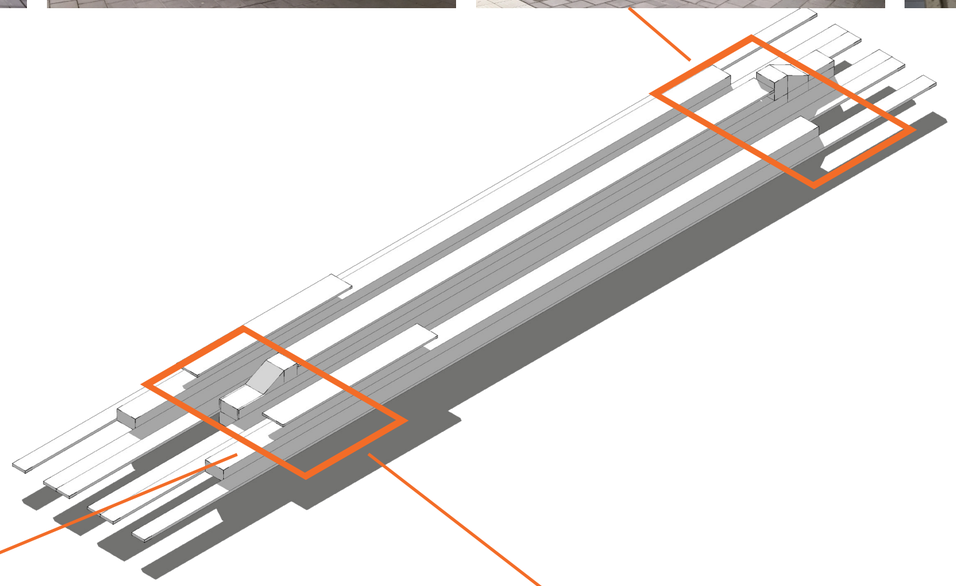








Station Entrance (North)



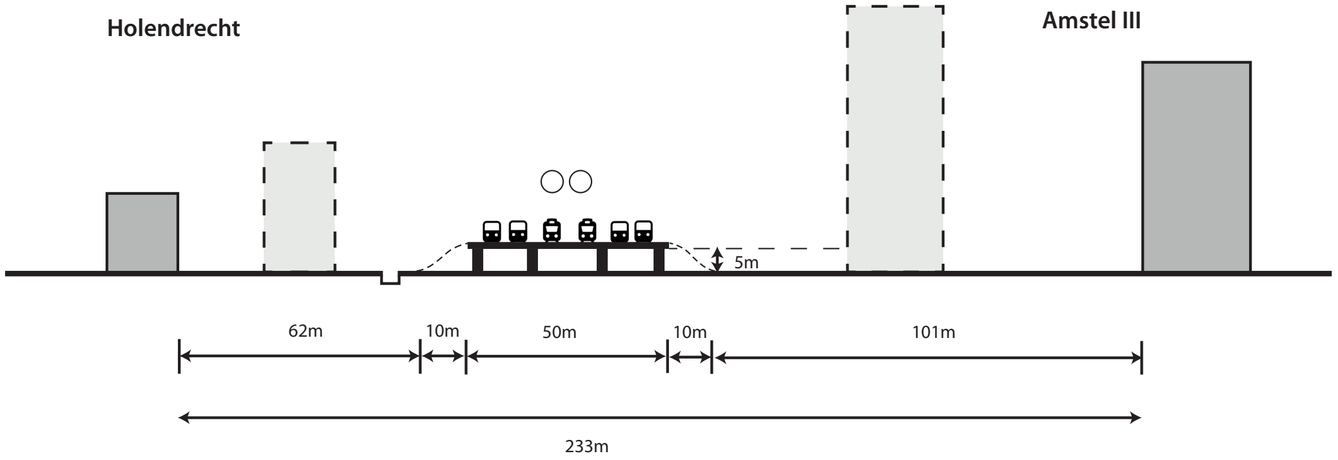


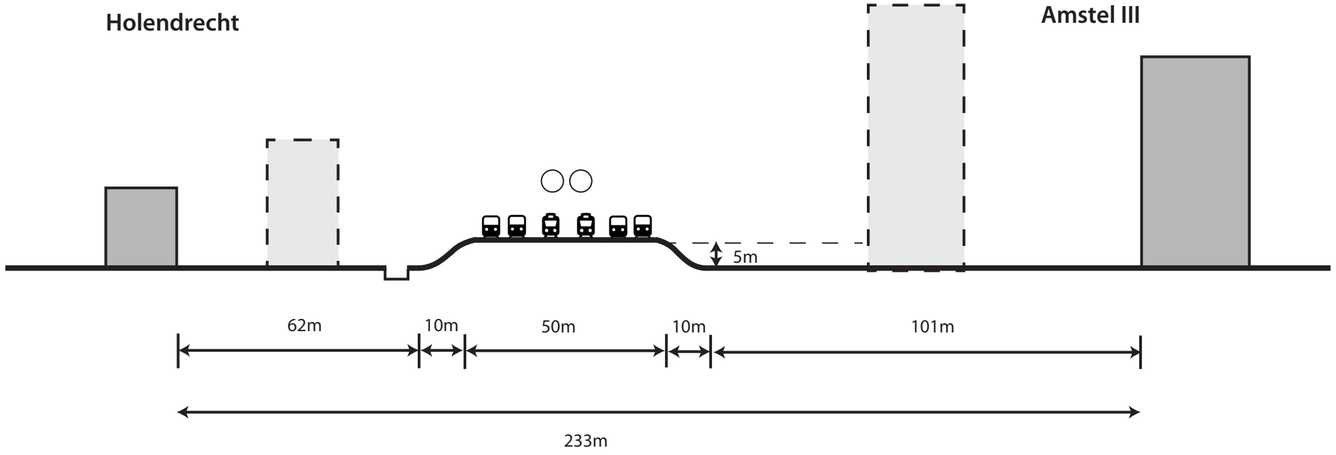


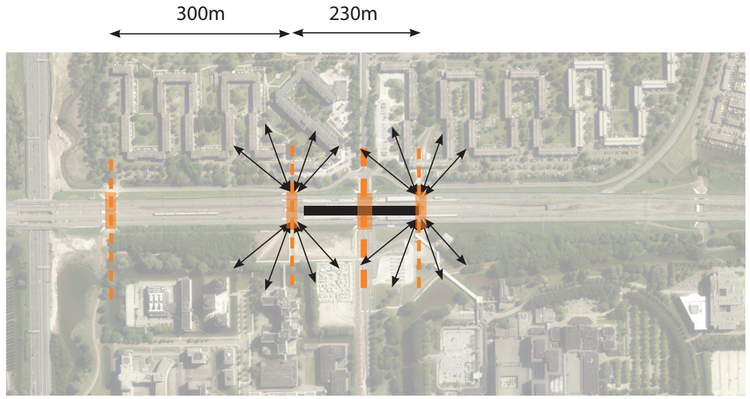
Station Entrance (South)

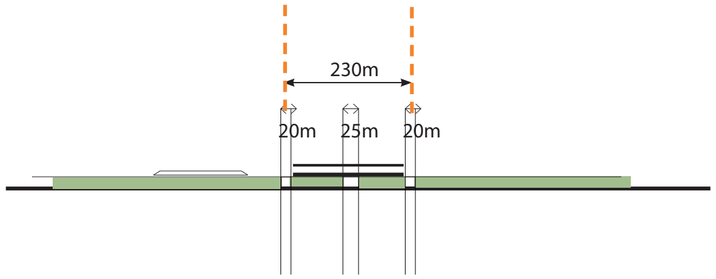
Section of Current Train Track

Site Study









Section along Train Track and Connections

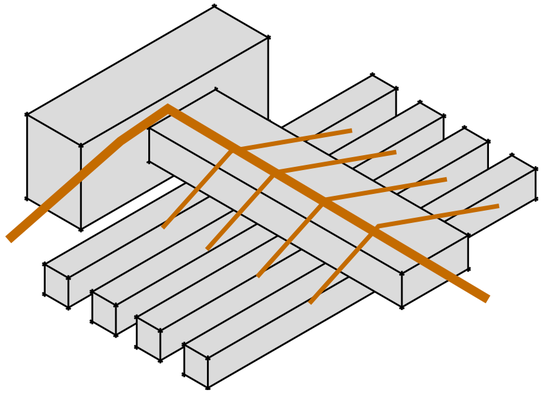
Connection underneath Train Tracks

Train Station

STATION CASE STUDY

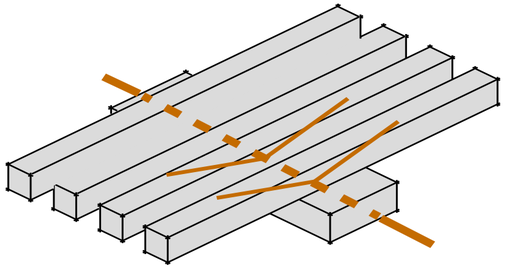
Circulation Typology of Station

Station Study



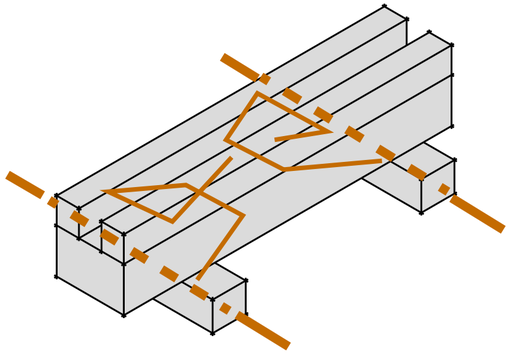


Utrecht Central Train Station



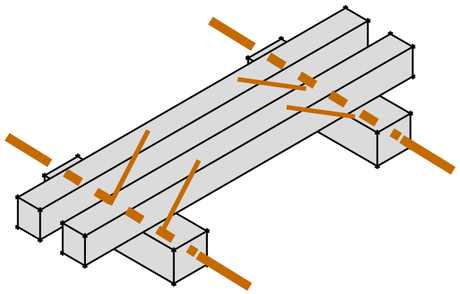


Rotterdam Central Train Station





Dubai Metro Station, Zuid-Dubai





Most of the metro stations in Zuid-Oost Amsterdam
e.g. Kraaiennest Metro Station, Holendrecht Staiton

Station Planning Case Study

Station Study

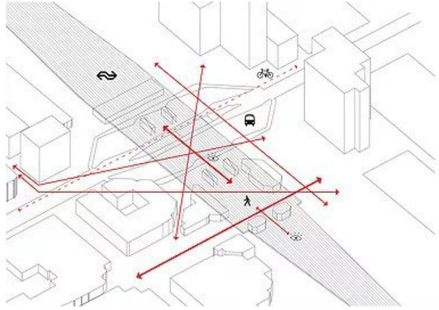
Almere Central Station

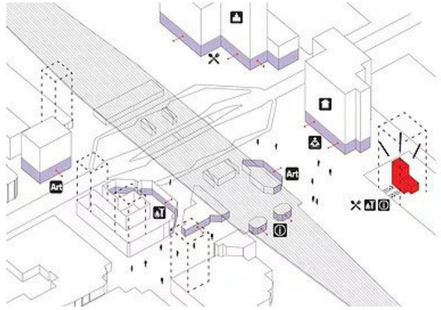


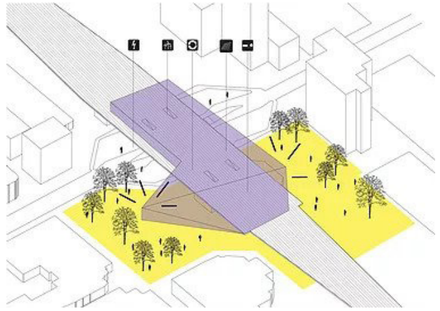
Site Plan



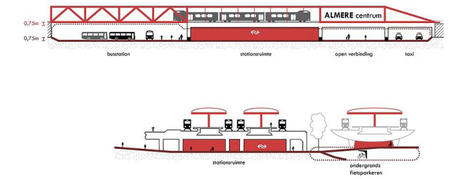
Bus Station under Train Tracks

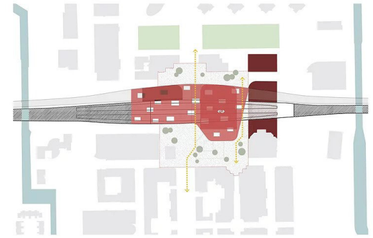


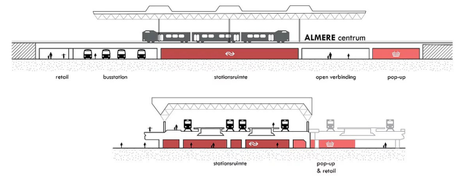


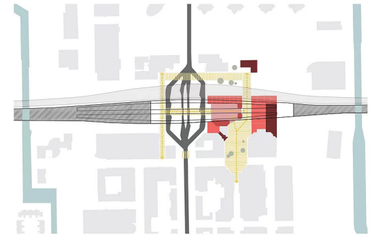


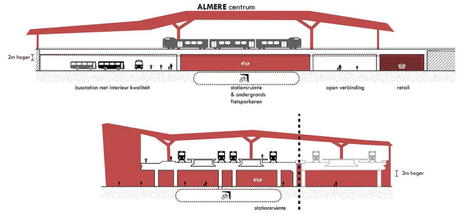
Master Planning

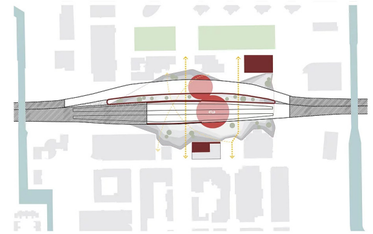










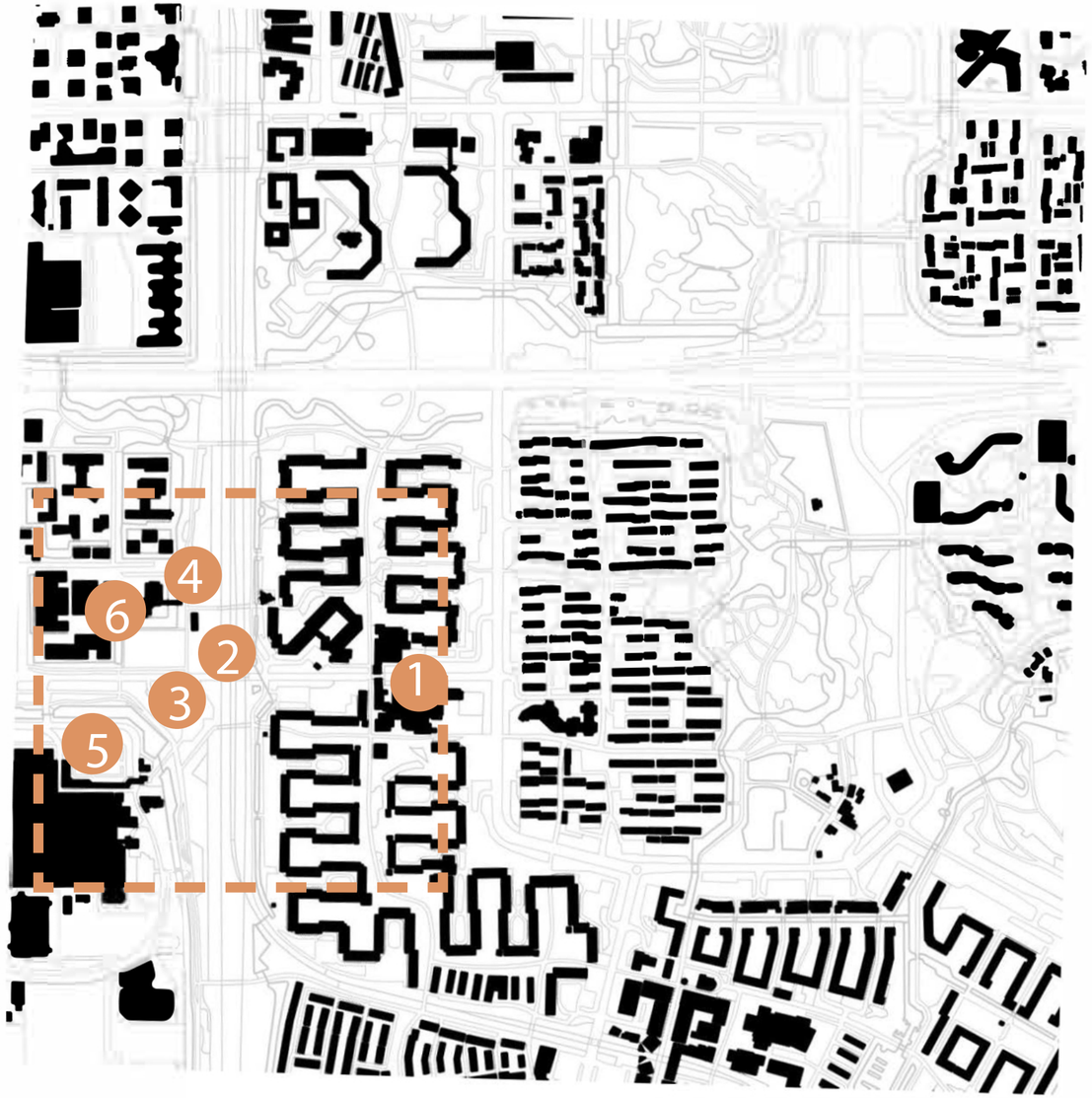


Various circulaiton and program layout

Site Planning Analysis

Latest Planning Nearby Holendrecht Station

Site Study



Holendrecht Station Rennovation



Spoorpark



AMC Student Campus



2013 2016 2019 2020 2021 2022



Holendrecht Shopping Centre



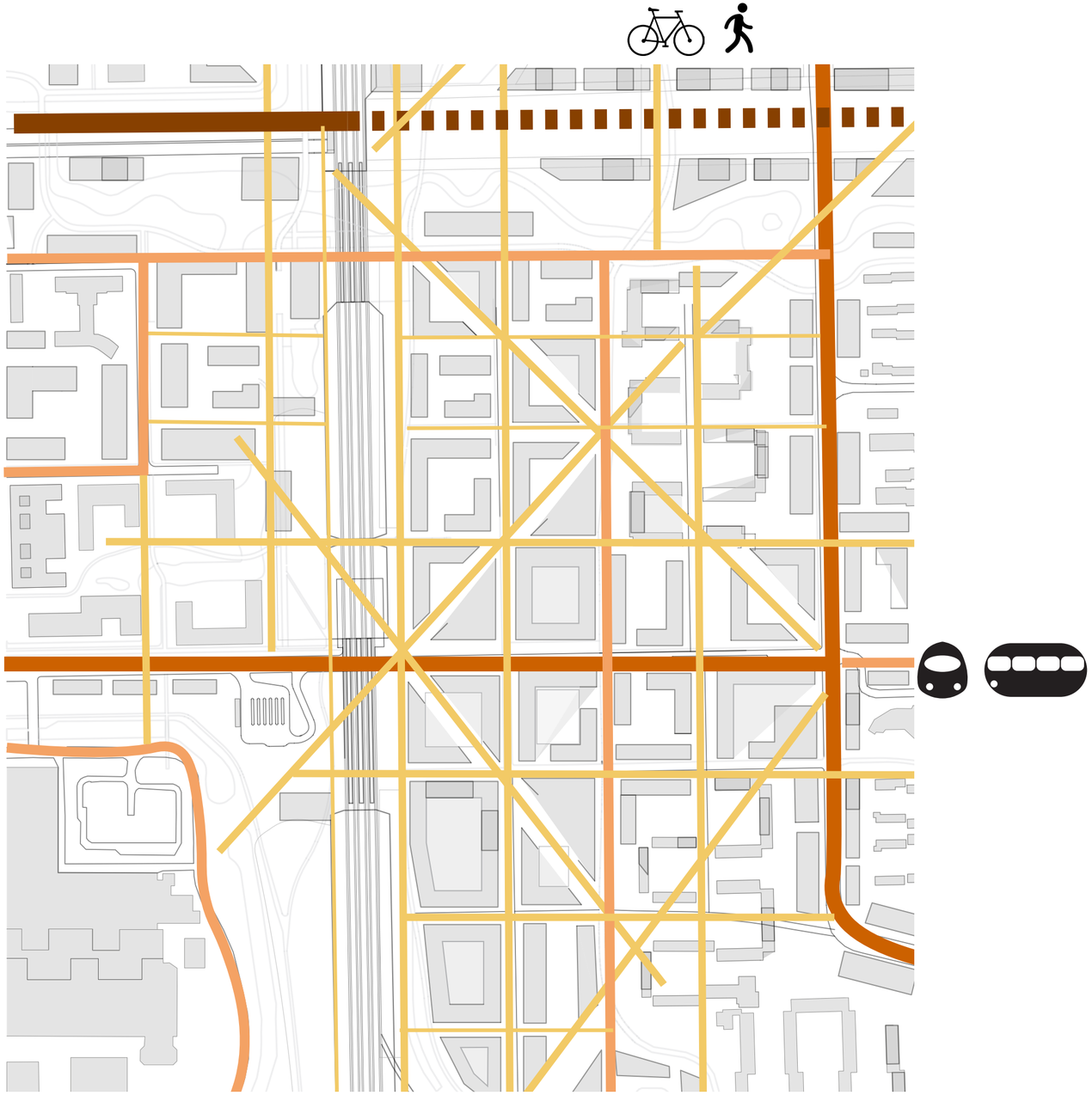
Station Square Improvement



AMC New Entrance

Superblock Planning

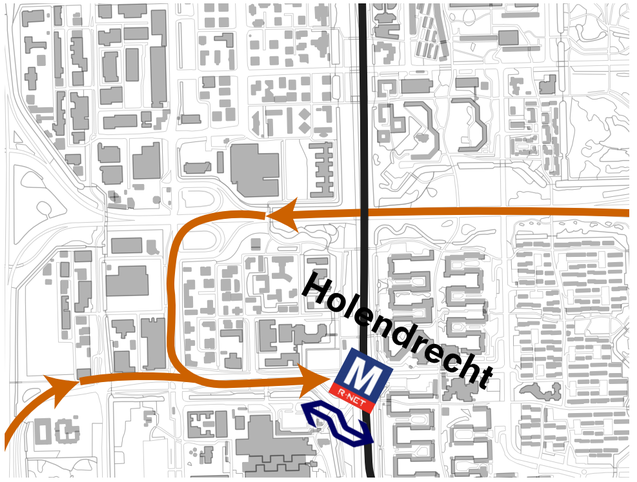
Site Planning



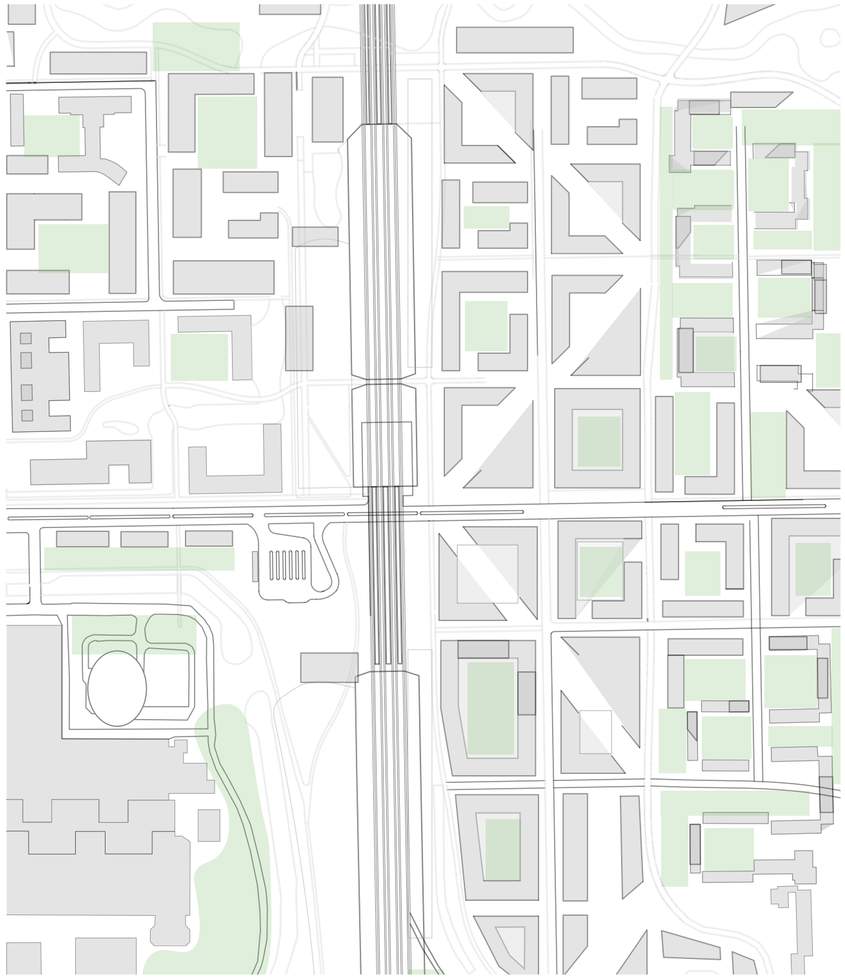
30 km/h

15 km/h

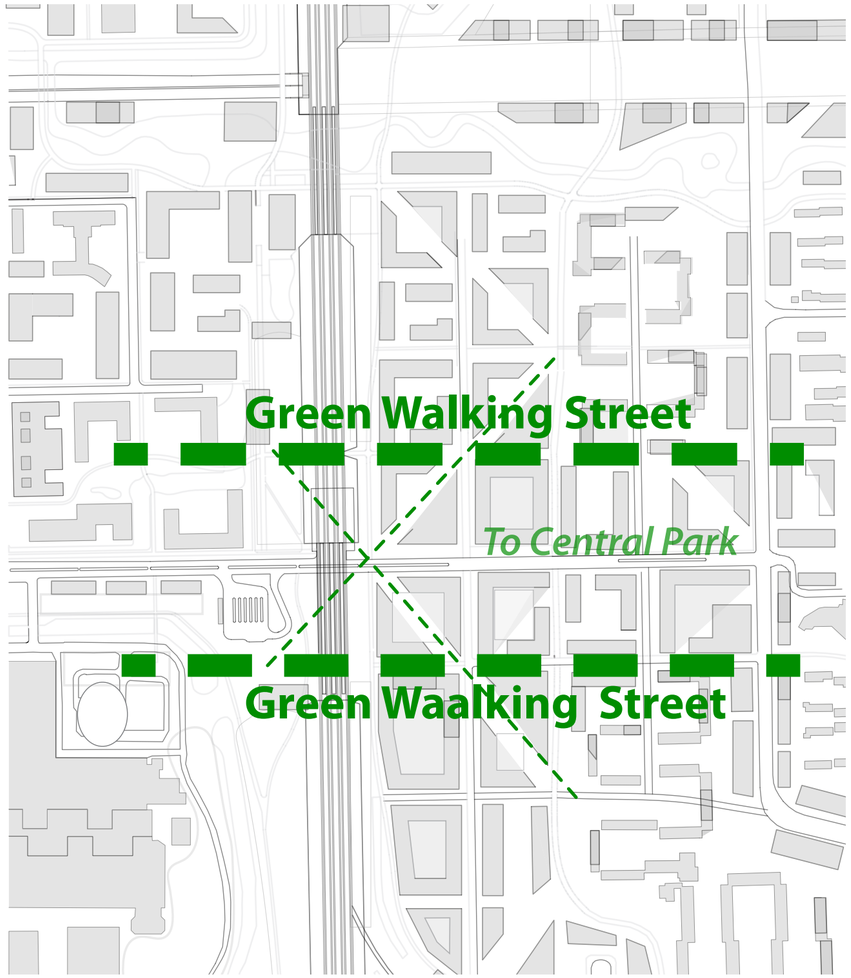
Emergency Car Only



Route of Logistics for goods drop-off



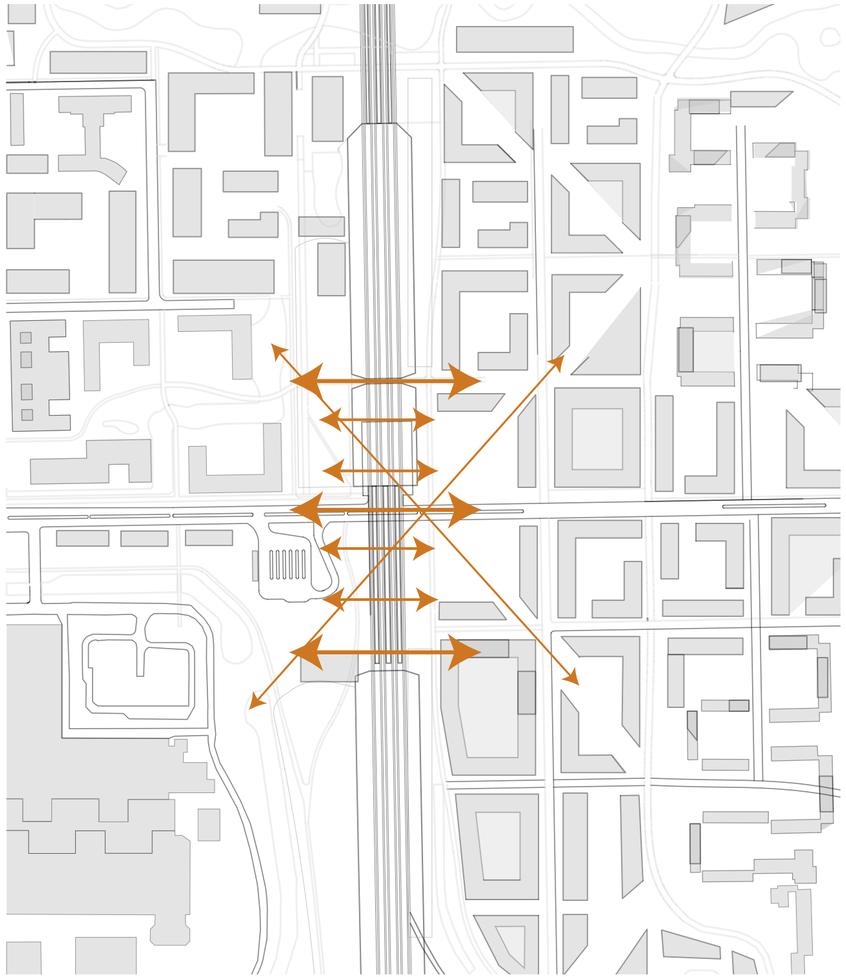
Green



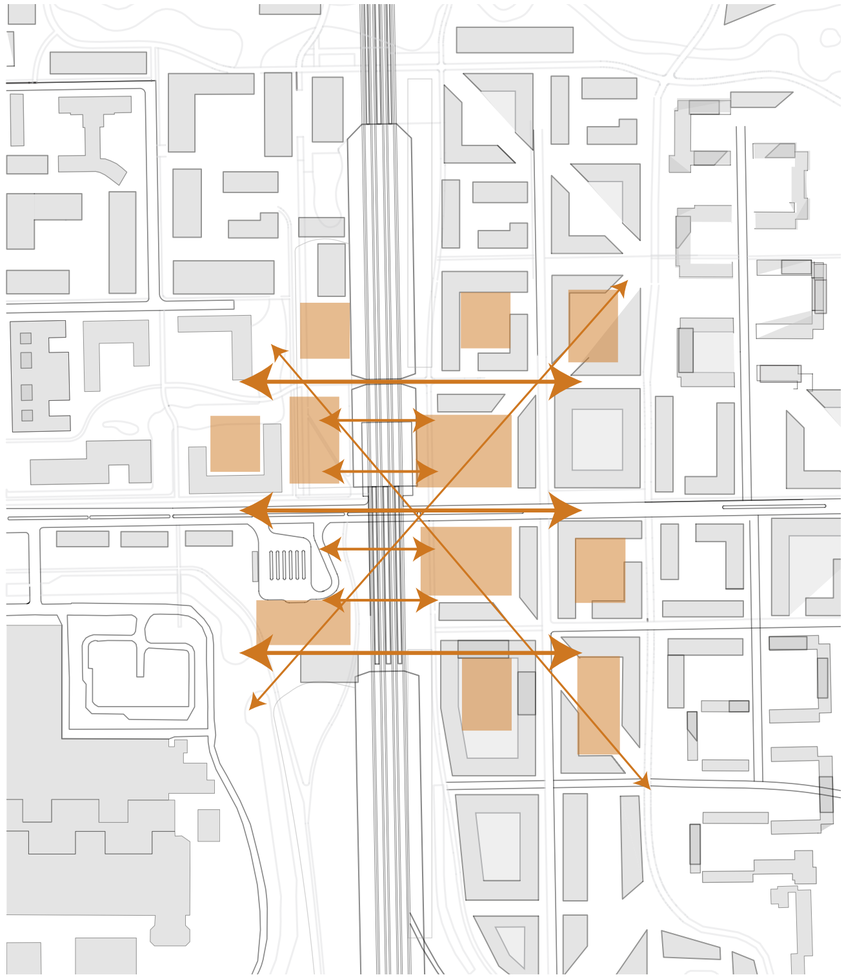
Green Walkway

Connection

Site Planning



Site Connection

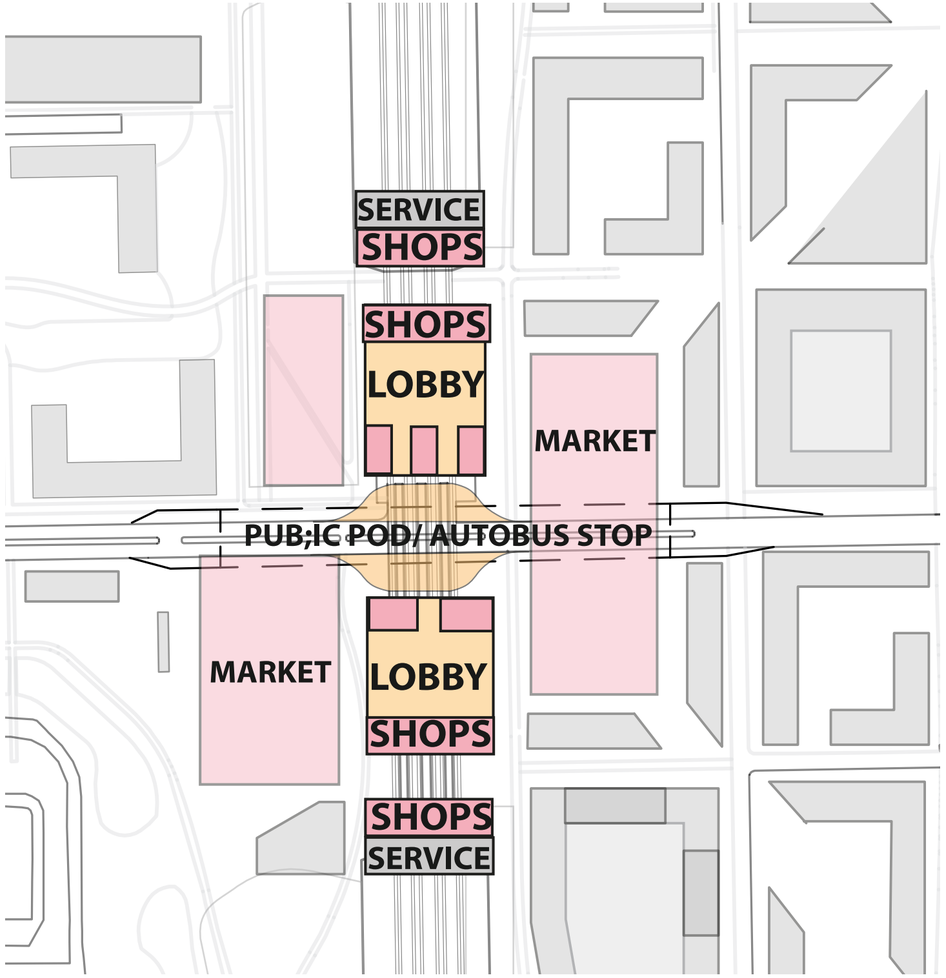


Creating Meeting Places

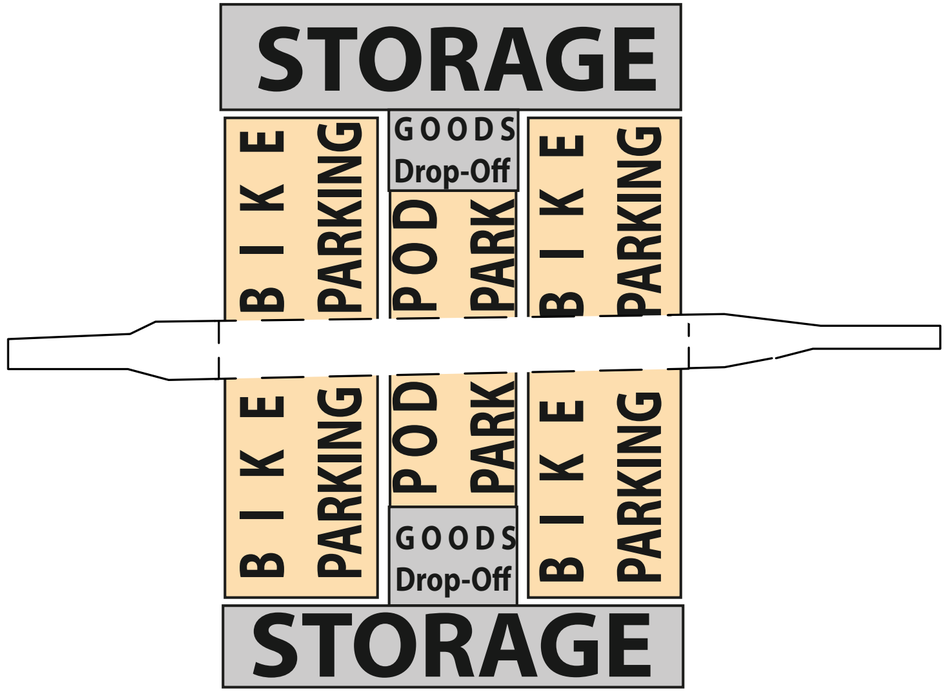
Plan, Section and Massing Test

Program in Plan

Program



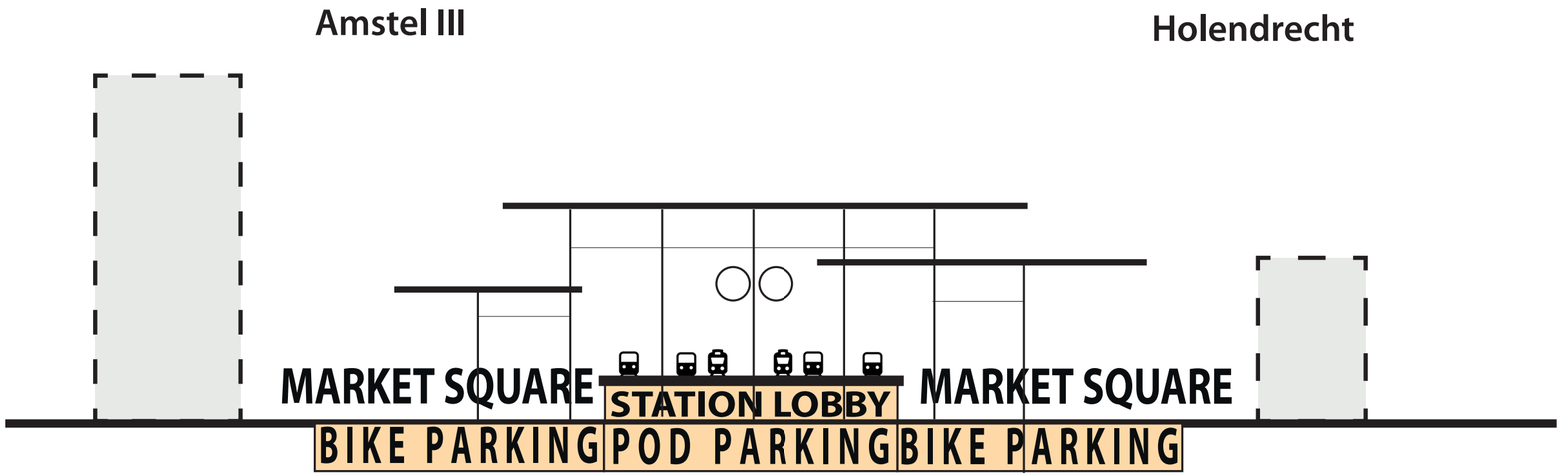
G/F Plan



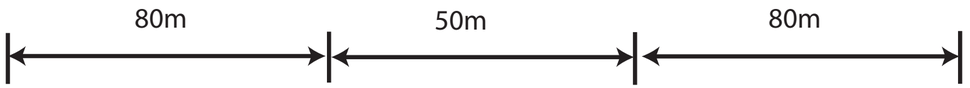
UG/F Plan

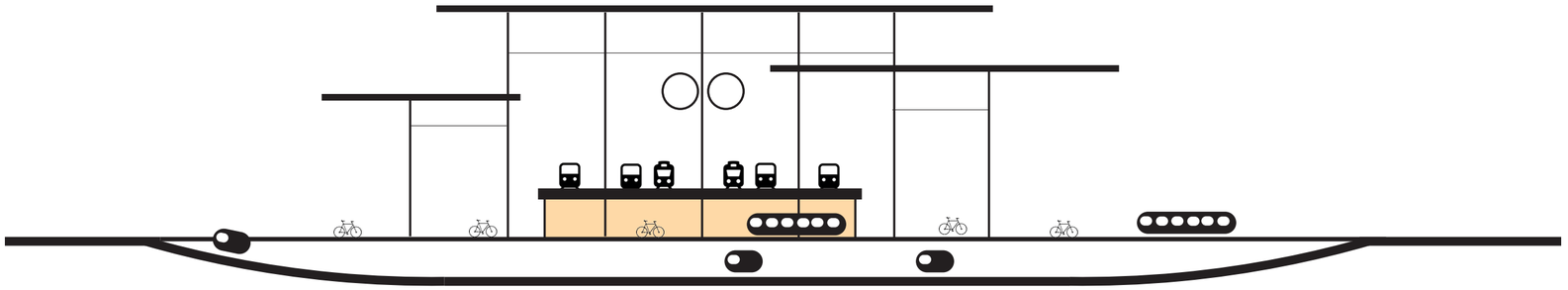
Program in Short Section across Train Track

Program



Section A





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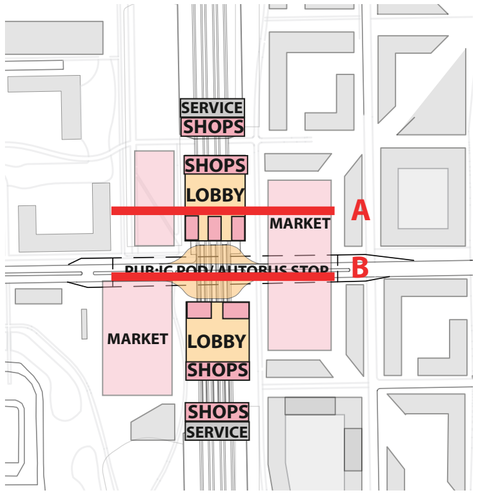
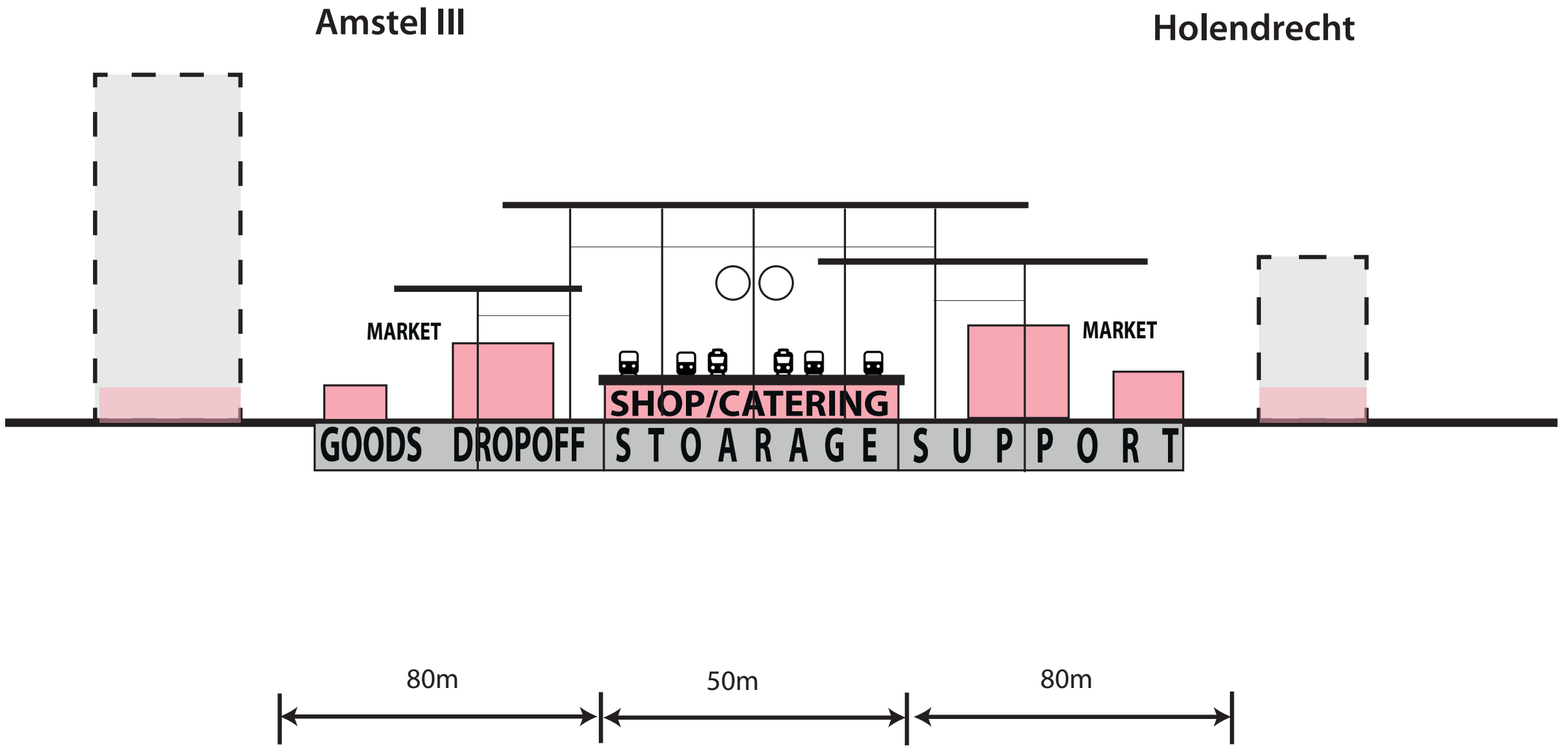
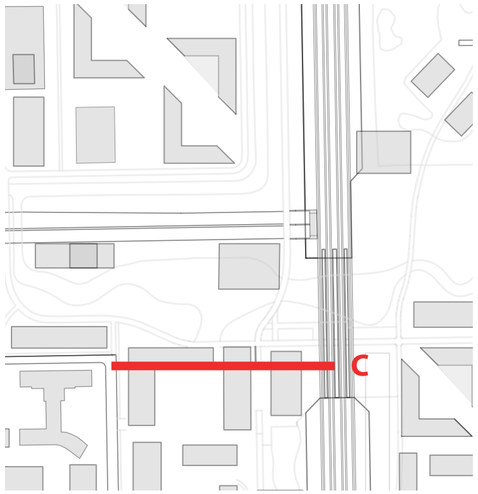


Program in Short Section across Train Track

Program

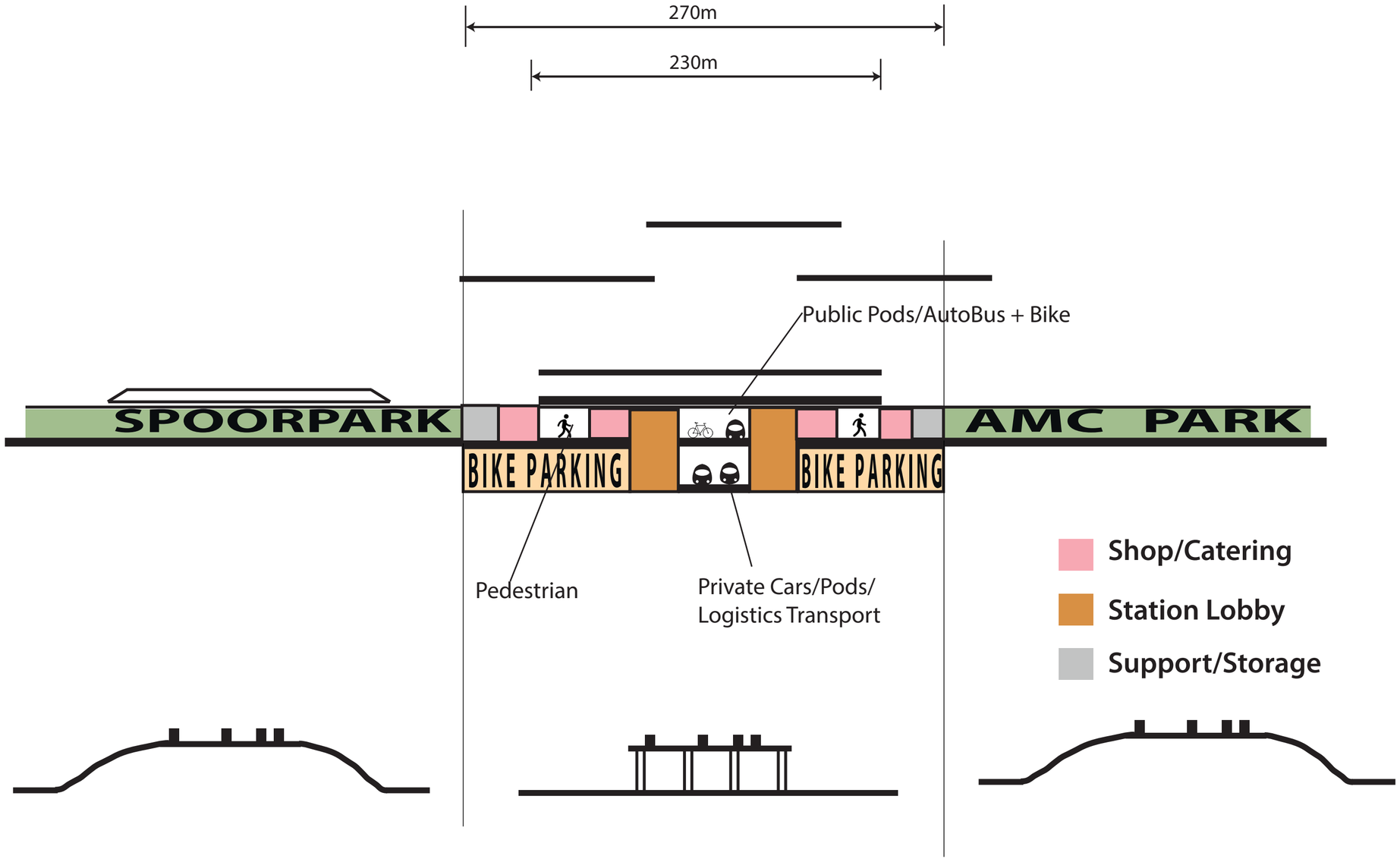


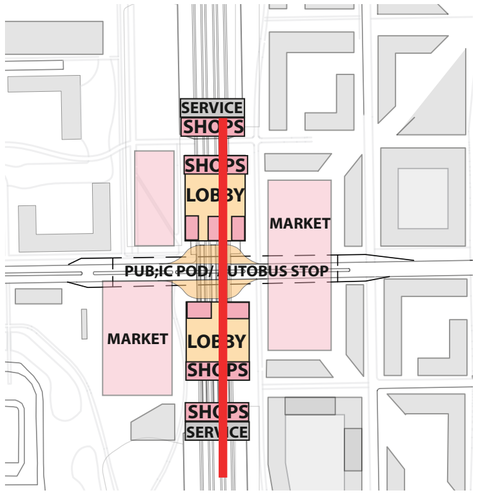


Section C

Program in Long Section along Train Track

Program





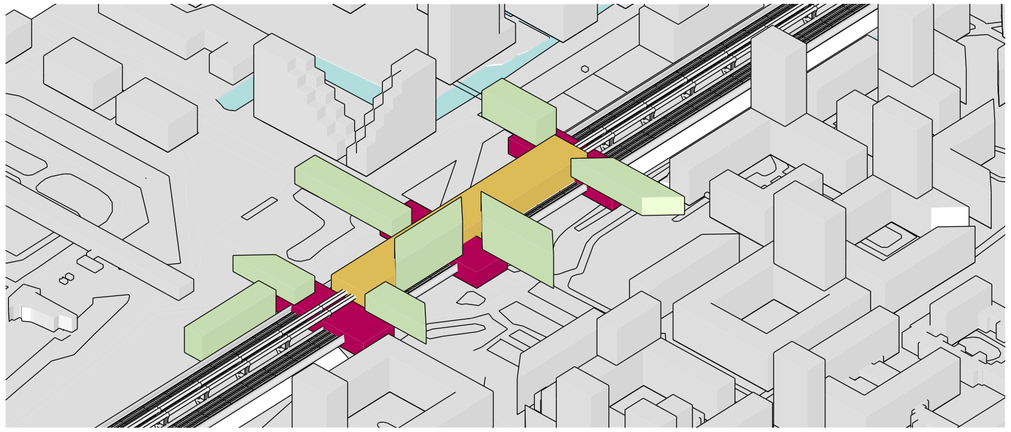
Shop/Catering

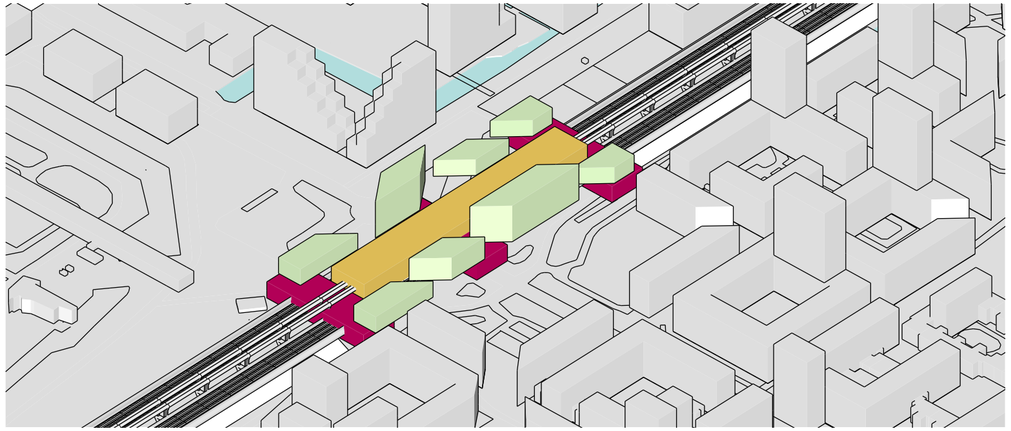
Station Lobby

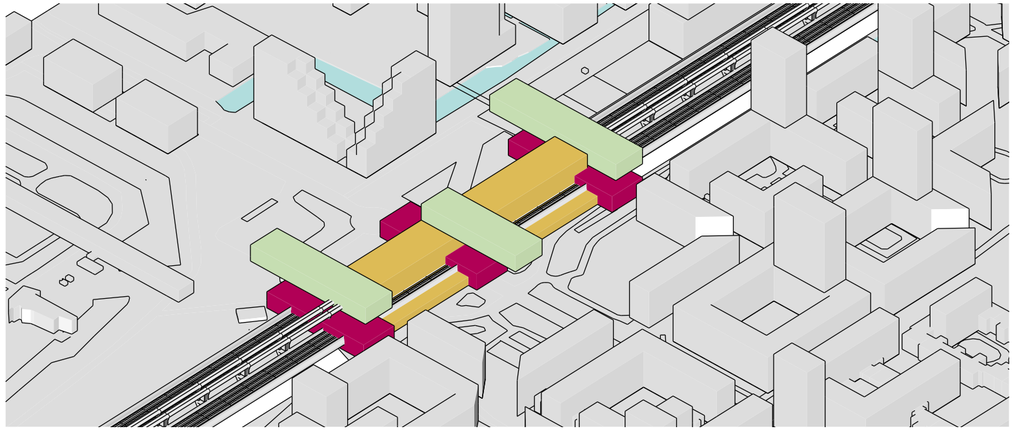
Support/Storage

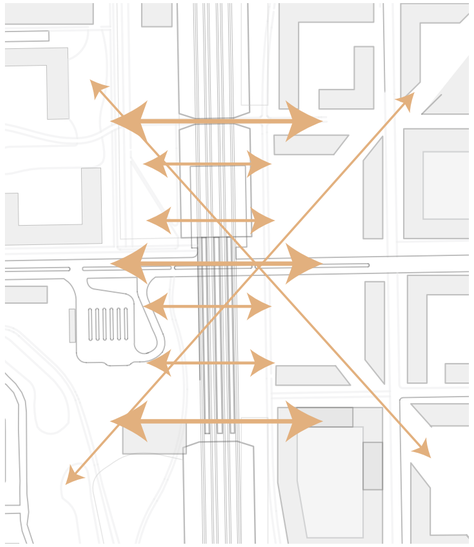
Program Massing Testing

Massing Design









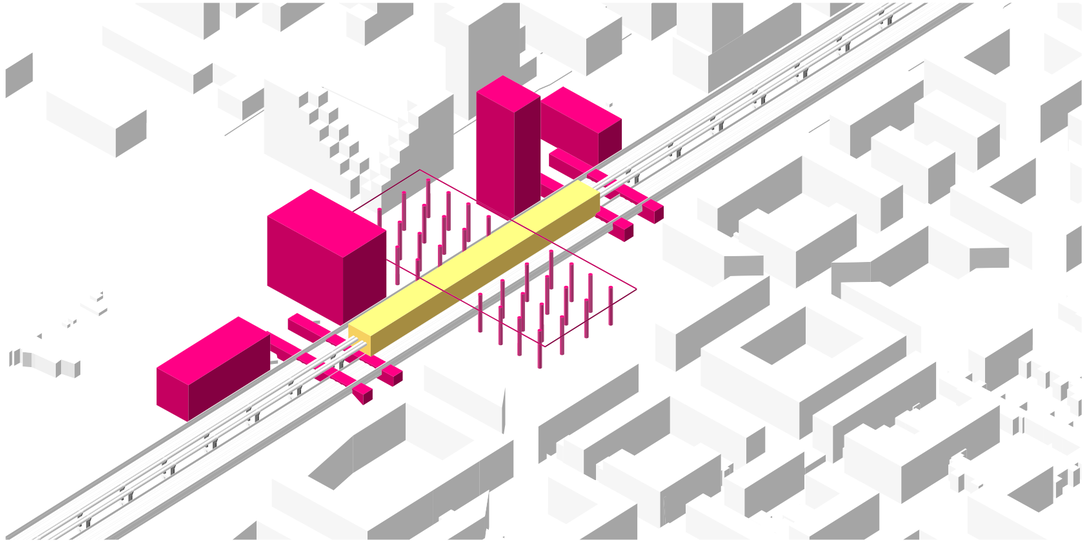
Market

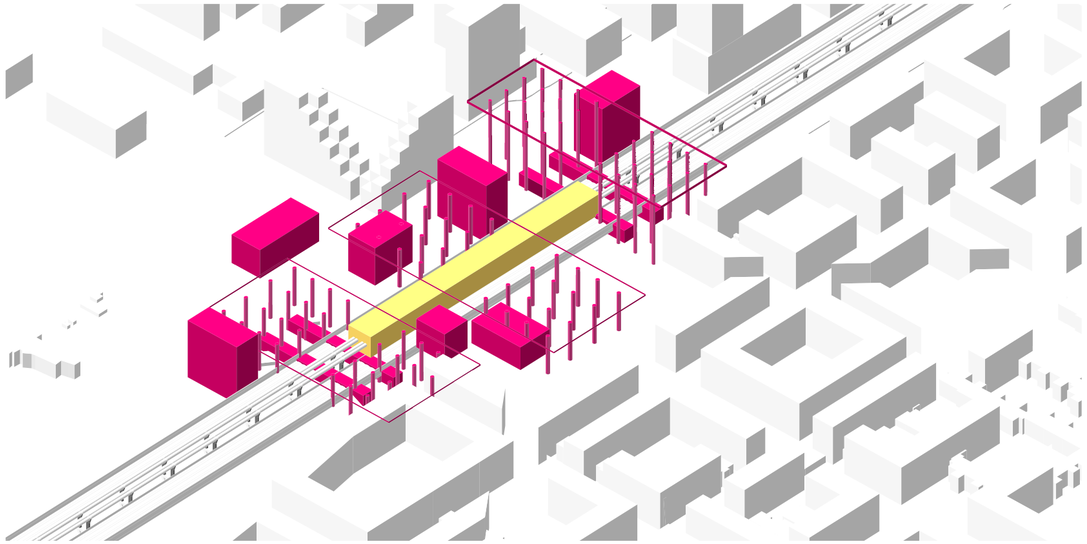
Station Facilities

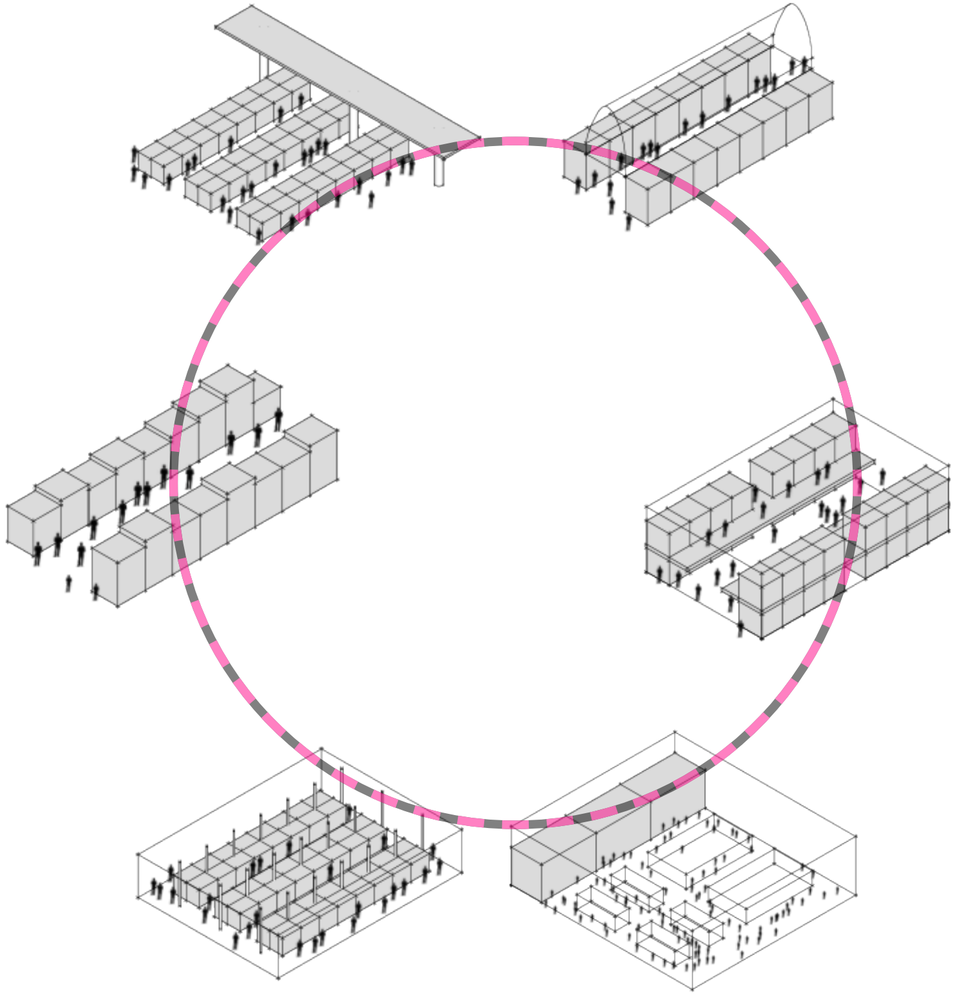
Station Shops

Testing - Mixing Typologies of Market

Massing Design







Train Station and Market

Reference Images

Station







Market





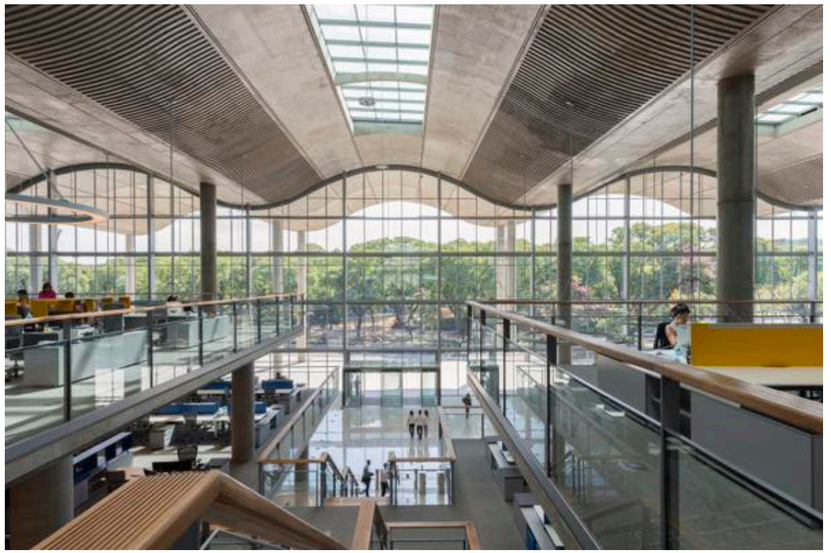


Spatial Quality - Fluid/ Transparent/ Visual Connection with Green

Reference Images





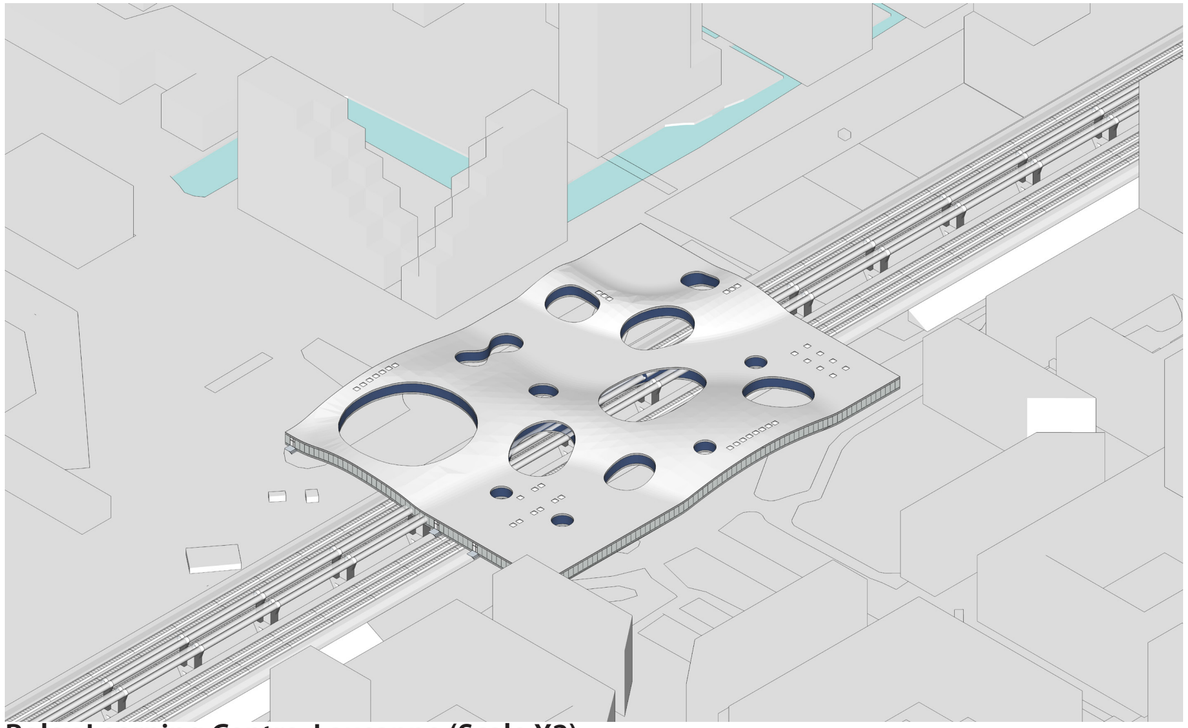




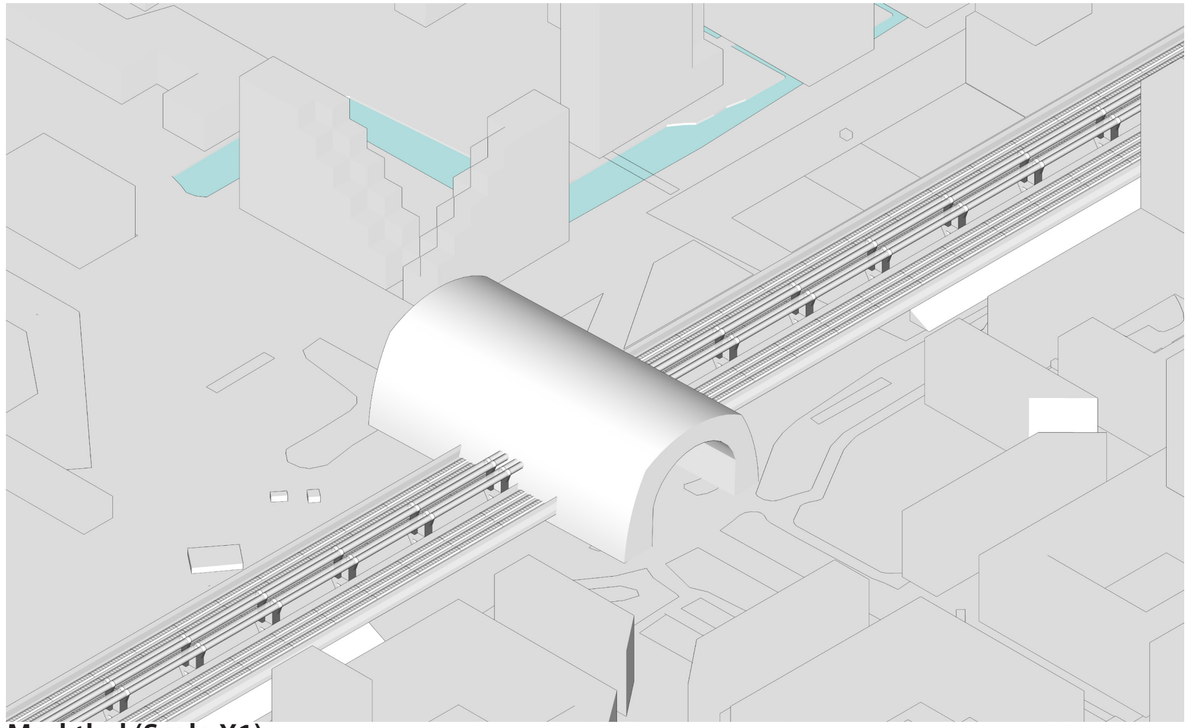


Scale Testing

Reference Images



Rolex Learning Centre, Lausanne (Scale X2)



Markthal (Scale X1)


Thank you!
SILKS
INDIA