

INTERNATIONAL NEW TOWN INSTITUTE

ROTTERDAM GOES BANANAS: designing a safe, active and inclusive city

New Town Lab Rotterdam Oostflank

INTI for DSO, 2020

Preface

This booklet is the result of the New Town Lab organised by the International New Town Institute from 21-24 September 2020 at the request of the Rotterdam Urban Development Department (DSO). The Lab has its origins in the ambitions of the municipality for this part of the city. The commission by the municipality states:

"Rotterdam has a major task until 2040 to build at least 50,000 more homes. The city council has opted to build these houses as much as possible in the existing city, linked to good public transport. One of the areas for the medium/long term is located on the east side of the city. In the area between Alexander and Zuidplein we expect to be able to realise some 20,000 - 30,000 homes, jobs and facilities.

As a member of INTImi (partners of INTI), we have asked INTI to organise a New Town Lab, in which, in a short period of time, a group of experts on urban planning develops solutions and alternatives for a complex urban area. Because of the modernist characteristics of Rotterdam-East, which has many similarities with the New Towns of the sixties, we think we can make use of INTI's knowledge.

We have asked the team to help us shape the tasks in these areas in such a way that existing districts such as Prinsenland and Het Lage Land can benefit. So: how can we use the future growth to improve the quality of the existing neighbourhoods as well?

Concrete questions for the team were:

- What social, economic or spatial challenges are there for the next 20 years in the districts Prinseland and Het Lage Land?*
- What opportunities are there to contribute to these challenges through urbanisation?*
- How do we make good connections between the Kralingse Bos, the A16 zone and the residential districts of Prinsenland and Het Lage Land?*
- What opportunities are there to use the existing metro line through Prince Alexander - which is now experienced as a dividing line - for a quality upgrade?"*

In order to formulate answers to these questions, scrutinise the existing plans from all sides and, if necessary, devise alternatives, a New Town Lab is ideal. A New Town Lab is an intensive design workshop with a multidisciplinary team of leading Dutch professionals (designers, planners, sociologists, historians, etc.) that is linked to local urban planners, designers and policy makers.

Over a number of days, the team will work on strategies and solutions to the specific questions raised by the New Town in question. An important part of the New Town Lab is a research phase into the identity and characteristics of the area in question. INTI has also used this instrument in other places, such as Shenzhen (China), Cape Town (South Africa) and Tatu City (Kenya).

The participants in the Lab were:

Markus Appenzeller (MLA+), Michelle Provoost (INTI), Oana Rades (Shift), Leeke Reinders (TU Delft), Simone Rots (INTI), Peter Veenstra (Lola).

Participants from the Rotterdam municipal department of Urban Planning were:

Mieke van Leeuwen, Marlies van der Maarel, Jeroen de Bok, Danny Nelemans, Walter de Vries, David Maters, Nils Markink, Quintin de Jong, Ellen de Bruijn, Jeannette de Waard, André de Groot, Mirjam de Graaf en Bert Vos.

- The task of building tens of thousands of new homes is just one of the issues facing Rotterdam. It is 'only' part of a bigger task: to reinvent a city that is good for the climate, that not only limits the damage but also prevents and restores it; and that is undivided, fair and accessible to everyone. In the years to come, Rotterdam's new story must be reflected not only in words but also in the physical reality of the city. This requires many more steps. Unbeaten paths have to be taken. The big city project is the revitalisation of the existing city. This is an exciting but necessary adventure in which we are happy to assist the urban development department wherever possible.

Rotterdam, November 2020

Michelle Provoost

Director INTI

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I . Introduction

What was the question?

- The A16 area will be urbanised. What opportunities does this offer for the existing districts of Lage Land and Prinsenland?
- What opportunities are there to improve the connections between the existing city and the new district?



How did we interpret the question?

- How can the quality of Lage Land and Prinseland improve and profit from the planned investments?
- What is the best location for the planned (spatial) programs from the perspective of the existing neighbourhoods?



Also:

- Can the city's ambitions also be shaped differently than with 20,000-30,000 homes in the A16 corridor?
- The need for housing and infrastructure is the driving force behind the developments. This requires sacrifices (e.g. of green space). But can we also reason from the other side: is this need perhaps the crowbar for realising a number of desired improvements?

And in general:

- What kind of city do you want to make? Which narrative belongs to that city and is convincing?
- The New Town is a reflection of a social ideal of the past; what is the garden city of the future?
- There are many ambitions, but what is the overarching story?

2. Looking & exploring

*Sociological analysis of the existing city as a starting point
for responding to the challenge*

- *appropriation and activation*
- *borders, connections and transitions*
- *collective domains*
- *infrastructure and texture*

Appropriation and activation

Densification of a city requires a close reading of existing zones, places and communities. Looking at daily life, at what is there and what you can relate to. How does the programmed city relate to the lived and informal city? How can the planned space be appropriated and activated?





Het Lage Land and Prinsenland have many open, green spaces with demarcated functional zones for play and interaction. How can these spaces be activated for other groups and uses?

Space has been made
manageable and surveilleable.
Everything has its place and its
limits. How can sport and play
be better integrated into the
urban fabric of the
neighbourhood?





Monofunctional zones.
Here you can play football,
there you can walk your
dog. How can space invite
connection and overlap?

Borders, connections and transitions

Understanding the existing city requires an understanding of the boundaries and dividing lines between areas. How do people shape private and collective spaces? What types of boundaries work in an area? Where are transitions, overlaps and transitions, and how can we shape them?



Private domains in
Prinsenland.





The balcony is an extension of the private domain, but what do you see when you look outside? How are relationships between inside and outside designed? What is possible at the interface between home and public domain?



Transitions are sometimes hard and impenetrable, but can also be soft and inviting. A private home in het Lage Land.

Collective domains

- On what images and ideas about the organisation of society is the Garden City of the 21st century based?
- Which groups live in Lage Land?
- Where and how do people meet, what domains and connections are at work here?
- How do different social classes live?
- What does 'suburban' mean nowadays?



The shopping centre in the Lage Land is a lively, multi-faceted space that invites you to stay and meet.



The pigeons are
waiting on a branch.



The neighbourhood's multi-culture is reflected in a supermarket.





Two churches in one building.

Infrastructure and texture

The city has a fabric, with transition areas and buffer zones, often in the vicinity of infrastructures such as motorways and metro lines. What could a physical-spatial strategy for such gaps and frayed edges consist of?





Infrastructure marks a border,
physical and sensorial.

A separation can also be a connection; can spaces next to it or underneath it be activated as social domains?



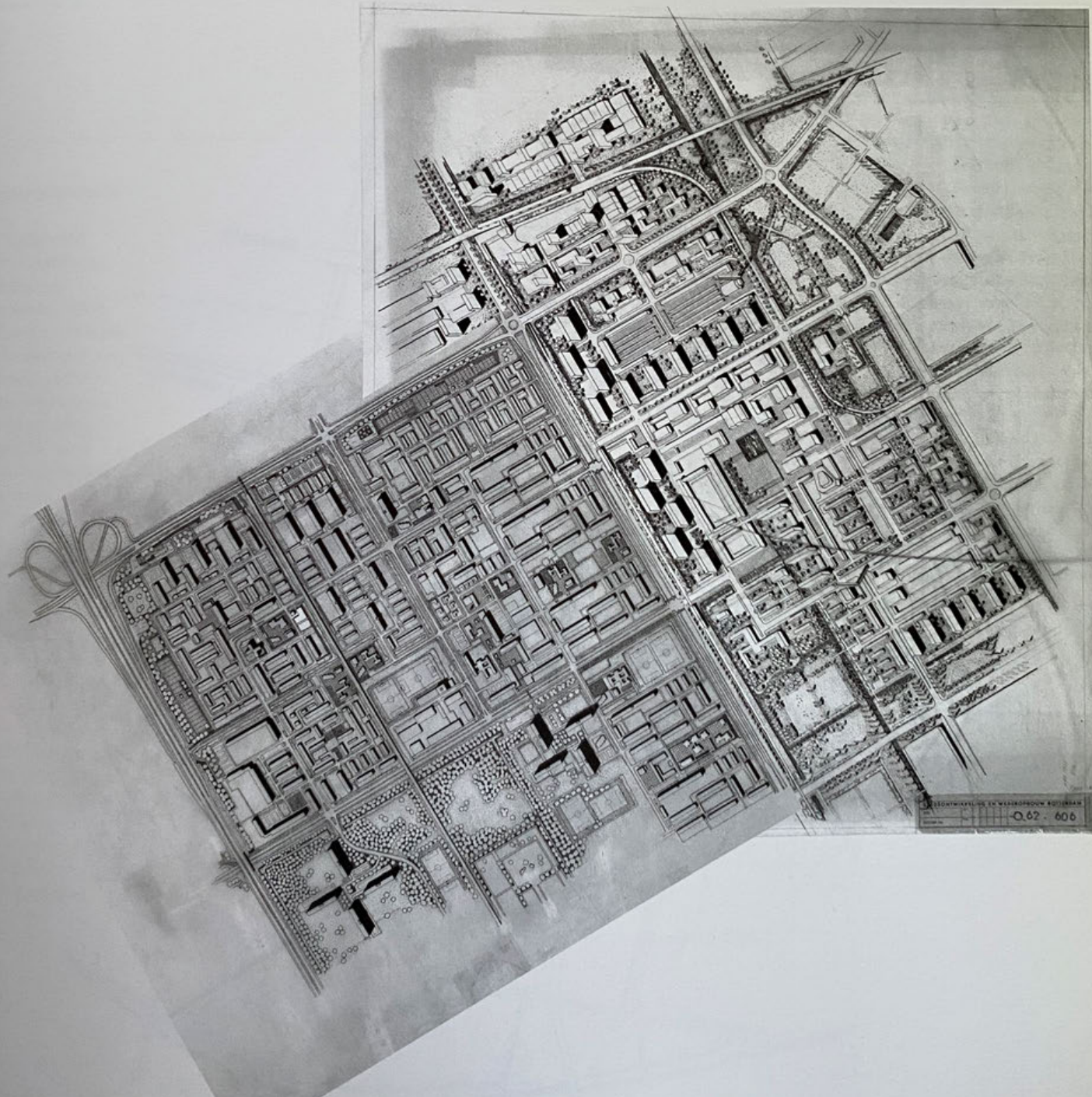


Working with the existing city requires an understanding of complexity and coherence between different levels of scale and domains; of the residential domain, the infrastructure and the public space.

3. History and future of the Garden City

Historical analysis of the existing city as a starting point to answer the questions

Starting from the existing: What are the existing physical and social qualities of the Lage Land?



- During the reconstruction period, the Garden City was the model for expansion districts.
- At the time, Lotte Stam Beese was the most important urban planner at the Rotterdam Urban Development Department.
- She designed (in part) the southern garden cities including Pendrecht, Hoogvliet, Het Lage Land and later Ommoord.



Hoogvliet

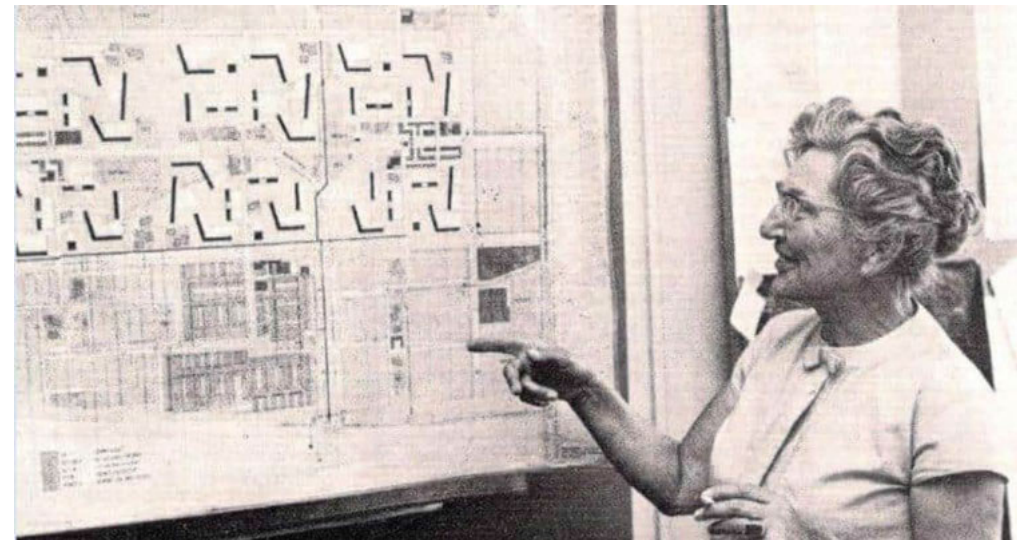


Pendrecht



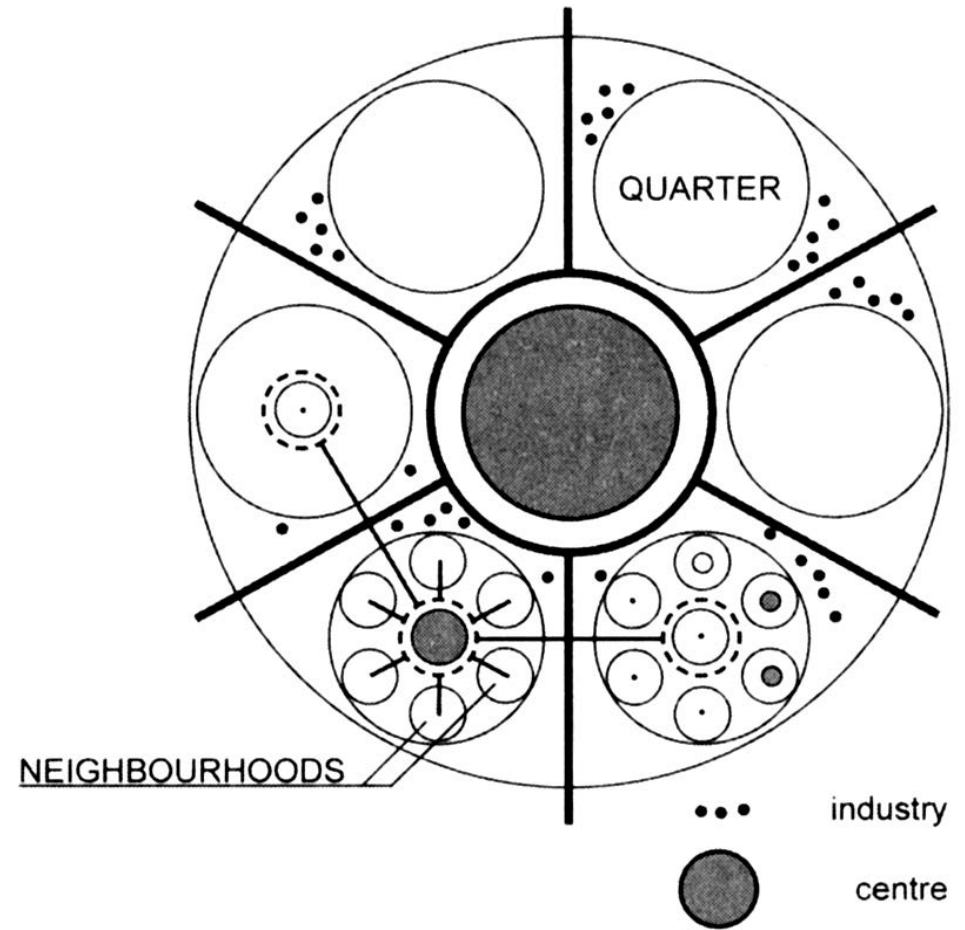
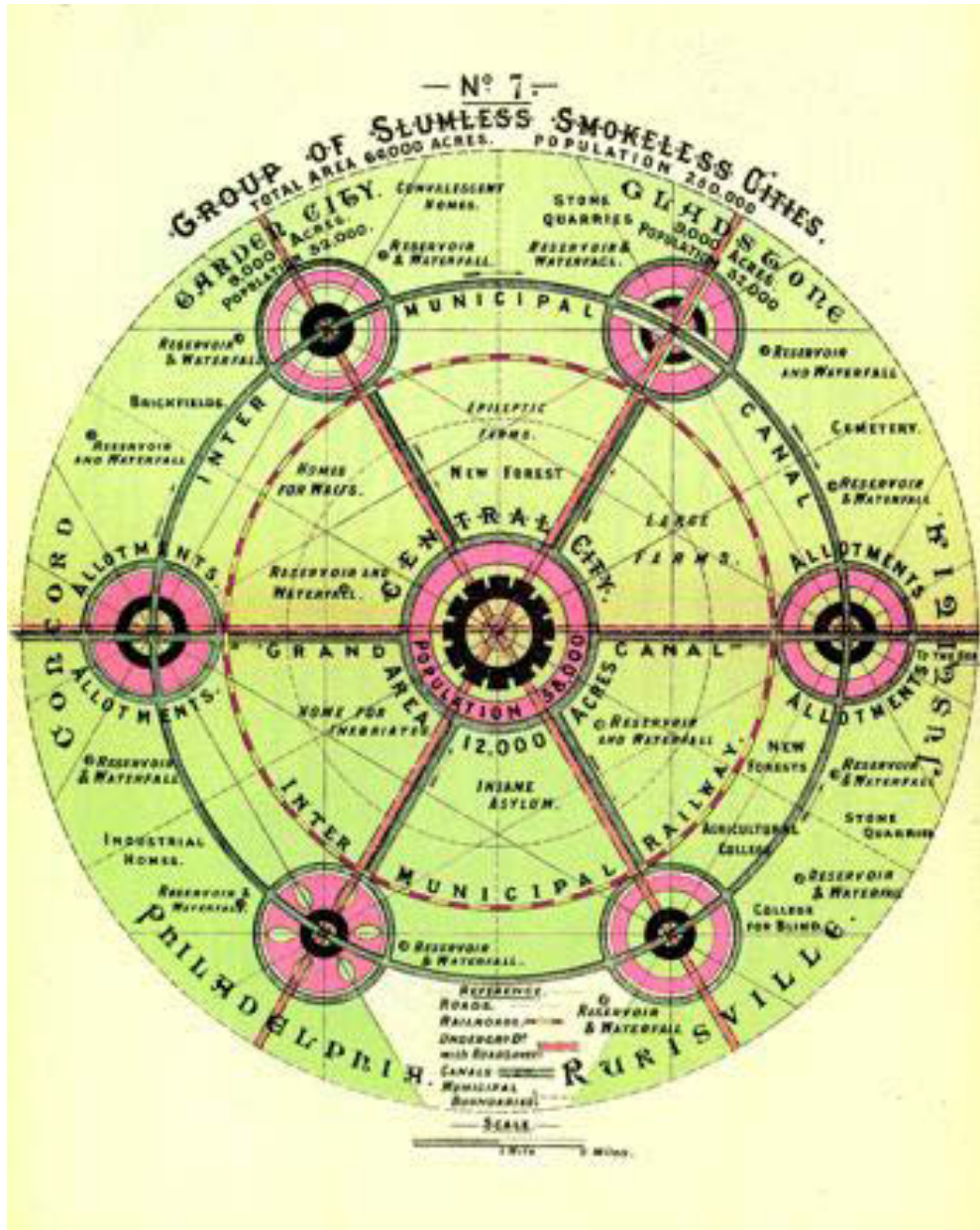
Overschie

Lotte Stam-Beese explains the urban plan for Rotterdam-East. Collection Het Nieuwe Instituut, Rotterdam (archive STAB).



- The Rotterdam Garden City model was a modernist interpretation of Ebenezer Howard's organisational model ('Garden Cities of Tomorrow', 1898).
- Objective: To reduce the size of urban areas
- Urban living embedded between green areas
- A clear, hierarchical structure
- City, district, neighbourhood; each has its own level of facilities

- Hierarchical structure

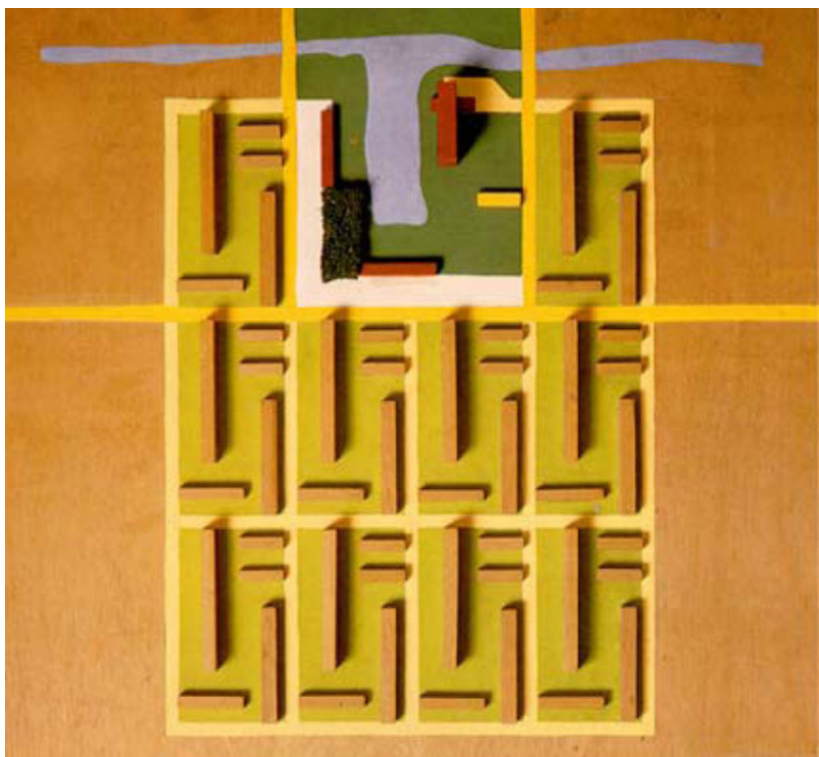


- The hierarchical Garden City is not only an organisational principle. Added to this is the idea of the neighbourhood, which offers social order, as well as security, clarity and safety to the inhabitants. Underlying is the idea to strengthen the idea of the family as the cornerstone of society. The ordering of the post war areas can also be regarded as a kind of social engineering.

Wij
en de
wijkgedachte...



'The Family is the Cornerstone of Society'



These principles were applied worldwide in New Towns from the 1950s–1960s.



Woden, Australia



Hoogvliet, The Netherlands



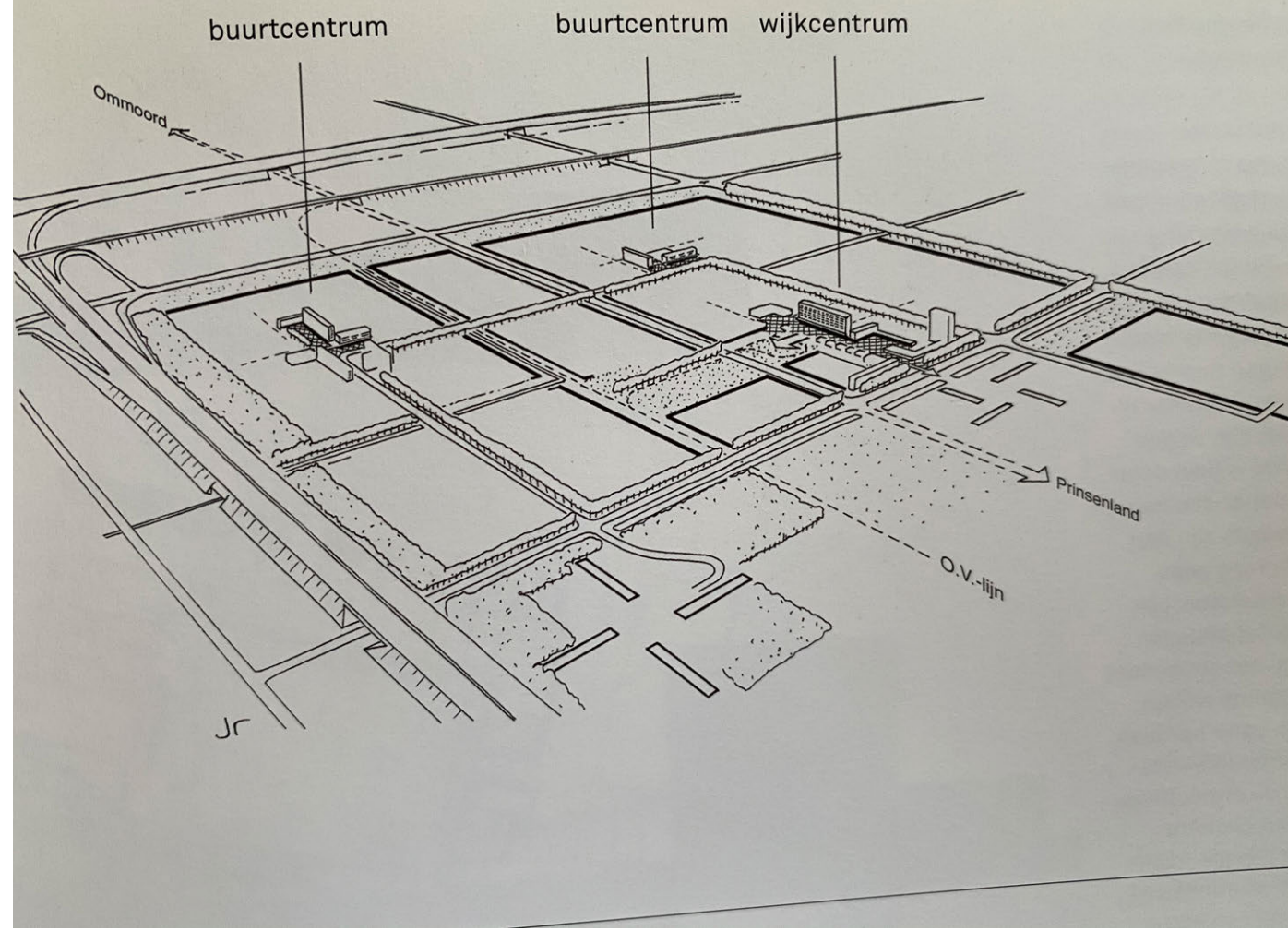
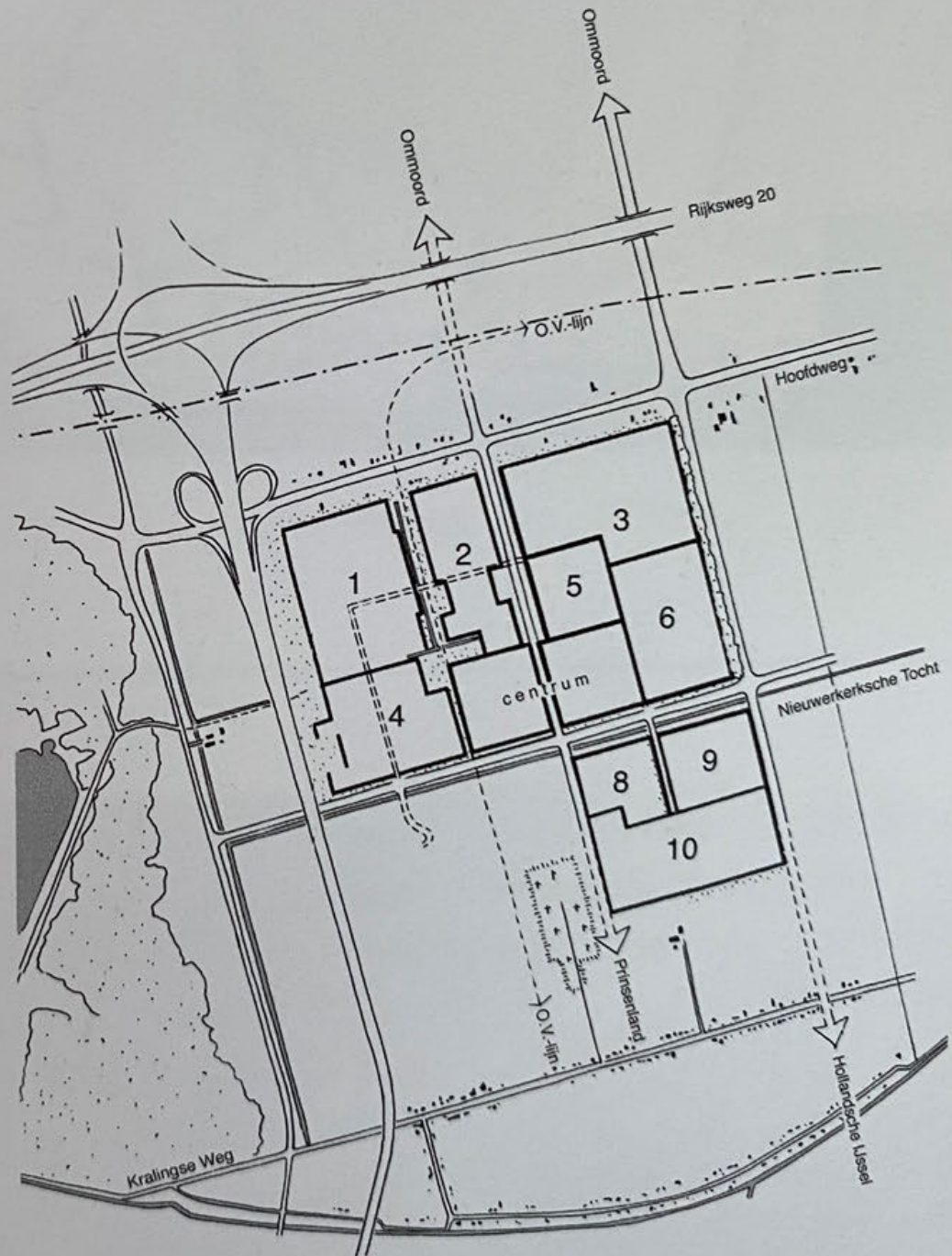
Pyongyang, North Korea



Ulaan Baatar, Mongolia



Tingbjerg, Denmark



Lage Land is surrounded by infrastructure and divided into rectangular housing areas. The neighbourhoods each have a small neighbourhood centre (buurtcentrum), and they share the larger Lage Land centre (wijkcentrum).



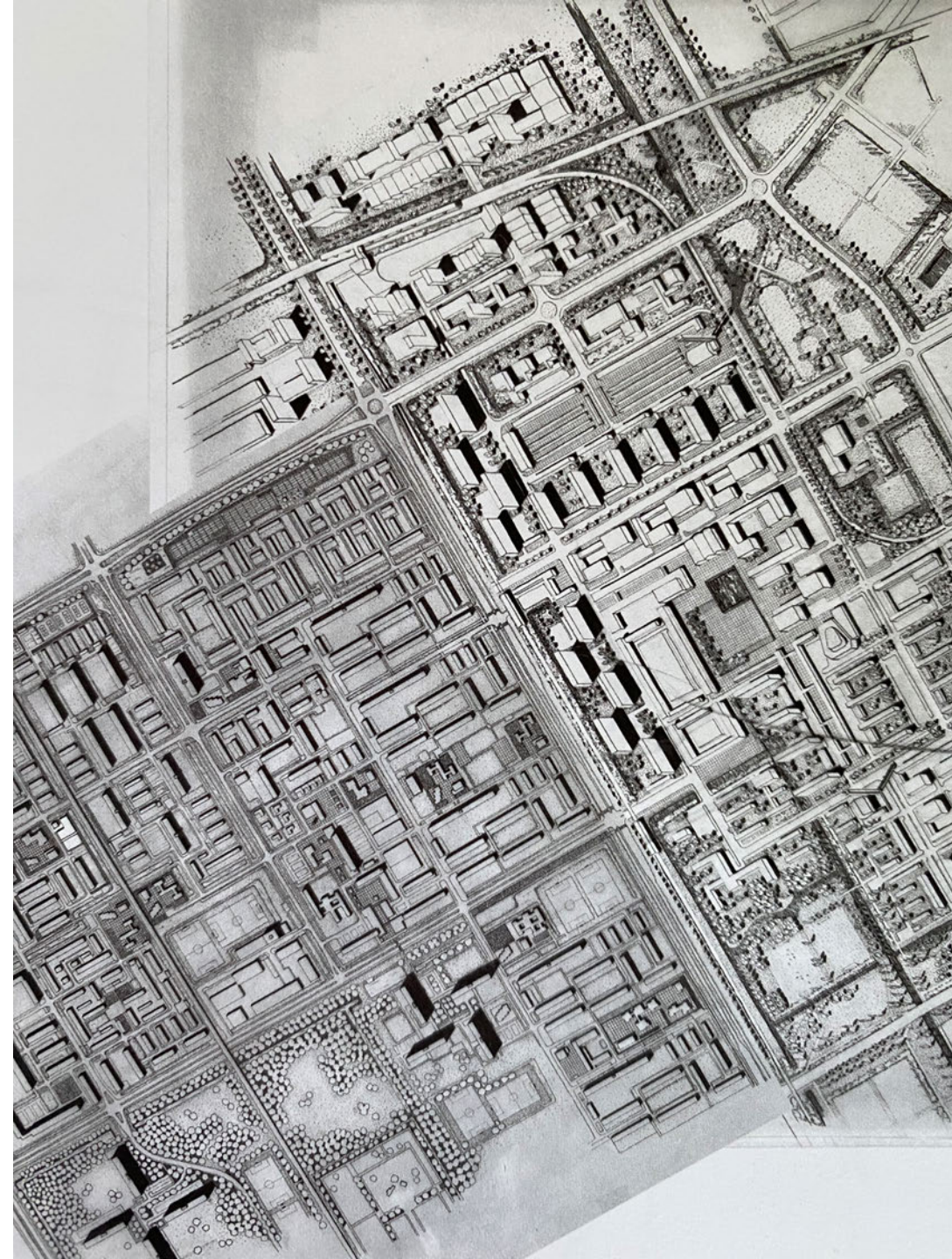
Neighbourhood centre Jacob van Kampenplein

Lage Land centre
Marinus Bolkplein



Het Lage Land is separated from the surrounding neighbourhoods. The borders are defined by greenery and infrastructure.

At the time, this was seen as something positive: the neighbourhood was rounded off, well-organised and practical.



Like all garden cities,
Het Lage Land has a lot
of greenery: in the
streets, between
neighbourhoods and in
the form of a park.





The analysis of the existing city also includes its weaknesses. What are they in Lage Land?

- The district is designed as an island with barriers around it.
- The roads and streets are designed for cars, with pedestrian-unfriendly nodes
- Extensive use of space
- Monotonous programming
- Mainly houses for families; much less for older people, young people or singles
- There is no longer support for shops in community centres

The AI 6 zone is not a single entity

The zone consists of a programmatically and historically diverse collection of areas:

- Office areas: the Brainpark is very different from Rivium.
- Residential areas: Het Lage Land is very different from Prinsenland
- Erasmus University
- Sports areas
- Nature reserves

Huizen in Het Lage Land

Gemiddelde
vraagprijs

EUR 193.981

Onder gemiddelde

Gemiddelde
vraagprijs per m2

EUR 2.053/m2

Onder gemiddelde

Gemiddeld
woonoppervlakte

94 m2

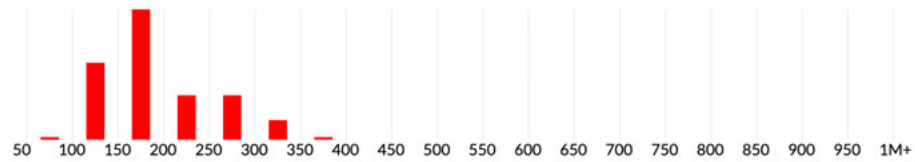
Onder gemiddelde

Prijstijging
laatste 6 maanden

▲ 6,1%

Gemiddeld

Vraagprijs huizenaanbod



Meest voorkomende woningen: **Eengezinswoning, Tussenwoning**

Bouwperiode meeste woningen: **1965 - 1969**

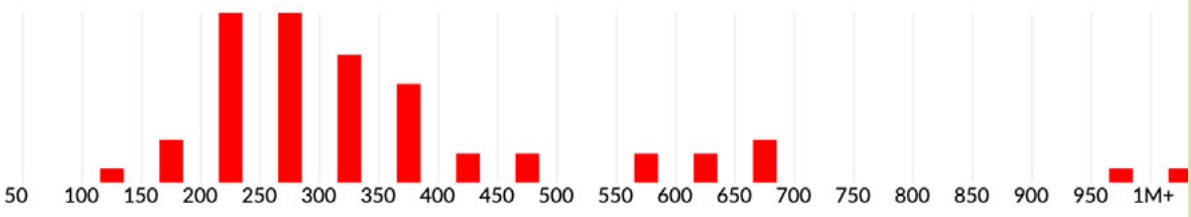
1960s, Lage Land:
Ortogonal straight lines
with mainly affordable
housing; collectivity
comes first.



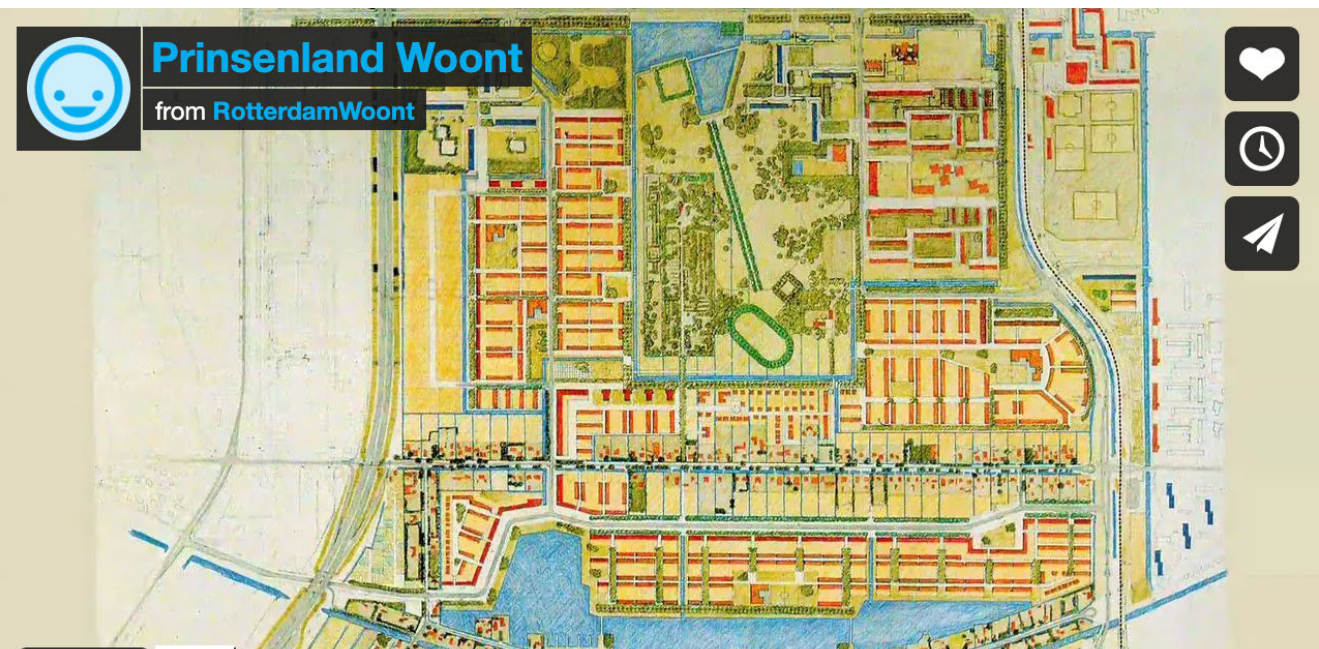
Huizen in Prinsenland

Gemiddelde vraagprijs	Gemiddelde vraagprijs per m2	Gemiddeld woonoppervlakte	Prijsstijging laatste 6 maanden
EUR 346.866	EUR 2.710/m2	122 m2	▲ 2,2%
Gemiddeld 📊	Gemiddeld 📊	Gemiddeld 📊	Gemiddeld 📊

Vraagprijs huizenaanbod



Meest voorkomende woningen: **Eengezinswoning, Tussenwoning**
Bouwperiode meeste woningen: **1992 - 1995**



1990s, Prinsenland: Existing lines of the landscape have been preserved, higher category housing, individuality comes first.



Garden City of the future: green, social, secure, quiet, for all

- Is based on a reinterpretation of the original values
- Is solving and overcoming original defects
- Is adding a new layer
- Don't see problems where they are not, but see potentials where they are
- Neighbourhood concept: The neighbourhood concept was intended to give everyone a sense of security and to connect people. Security is still a valued characteristic, but not in the imposed way it was implemented in the 1950s. Everyone is free to choose which communities they want to belong to. Neighbourhood facilities are still needed, but not necessarily for shops.
- A green neighbourhood: the large amount of green space is a quality, but it can be better and more climate-adaptive: no 'viewing green', but ecological greenery. The greenery can also be made more productive, with more programme.
- Mobility: less emphasis on the car, more space for cyclists and pedestrians, other solutions for parking

- The garden city was built in the 1960s with a not very diverse housing programme, with mainly houses for families. The garden city of the future is more diverse in all areas and this should also be reflected in housing: also for seniors, young people, singles, selfbuilders, collective groups etc.
- For everyone: LageLand was an affordable, social neighbourhood for everyone; affordability will continue to be a social value in the future.
- There is a greater diversity of people today, so the facilities should not only reflect the three pillars of yesteryear, but offer many more tastes.
- At the time, the garden suburb was planned at the drawing board, completely top down; now it is no longer the municipality or the market parties who arrange and build everything, but there should be more room for residents' wishes and private initiatives in the garden city of the future.
- The scale on which people use the city is no longer limited to the neighbourhood. The district as an island shielded by infrastructure is perceived negatively. That's why the barriers need to be removed and neighbourhoods need to be interconnected.
- The metro line was added later; this is a backbone for future development and the zone for connecting the neighbourhoods.

Peeling & designing

During the New Town Lab



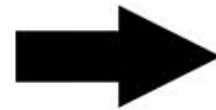








4. From banana to fruit skewer



The 'banana' suggests a separate part of the city that is added with a single identity.
But: it is rather a 'fruit skewer' with a sequence of cores and areas with a different, distinct identity.



‘From A to Z’; Municipal Structure Plan for urbanisation of the A-16 zone, DSO 2020

An aerial photograph of a city, likely Amsterdam, showing a dense urban grid and a winding river. Two prominent, thick white lines are overlaid on the image, representing infrastructure barriers. One line runs diagonally from the top left towards the center, and the other runs from the top left towards the bottom right, crossing the first line. The city is surrounded by green fields and a large body of water in the bottom left corner. In the bottom left corner, there are two scale markers: '1500 m' and '3000 m'.

Infrastructure-barriers

The A16 and A20 motorways make their mark as large, elevated highways in the area.

1500 m

3000 m

Opportunities for connection

Chances for (improved) connections exist near:

- Bosdreef
- Lage Land
- EUR-Rivium
- Stadionweg

1500 m

3000 m





Programmatic opportunities for connection

An appropriate programme can be linked to each of the connections:

- Production/work
- Green/sports
- Knowledge/offices
- Health and Sports

1500 m

3000 m

42 ha, 6300 houses
150 houses/ha

20 ha, 2000 houses
100 houses/ha

37 ha, 5600 houses
150 houses/ha

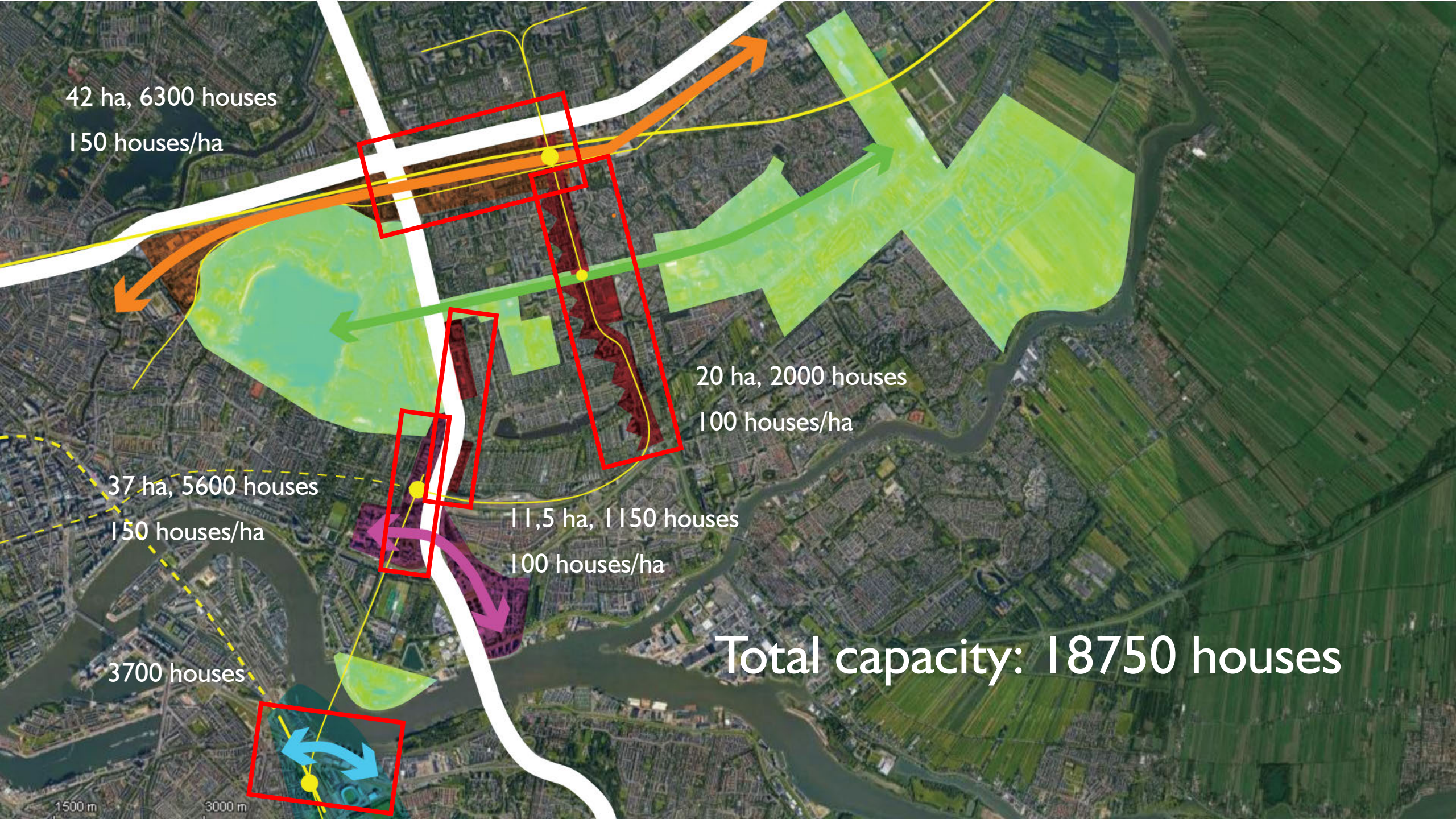
11,5 ha, 1150 houses
100 houses/ha

3700 houses

Total capacity: 18750 houses

1500 m

3000 m



“Maker district”

Housing and small scale
‘maker’ production

“Fix-it strip”

Housing and small scale
technical services

“Health city”

Housing, sports and health
facilities

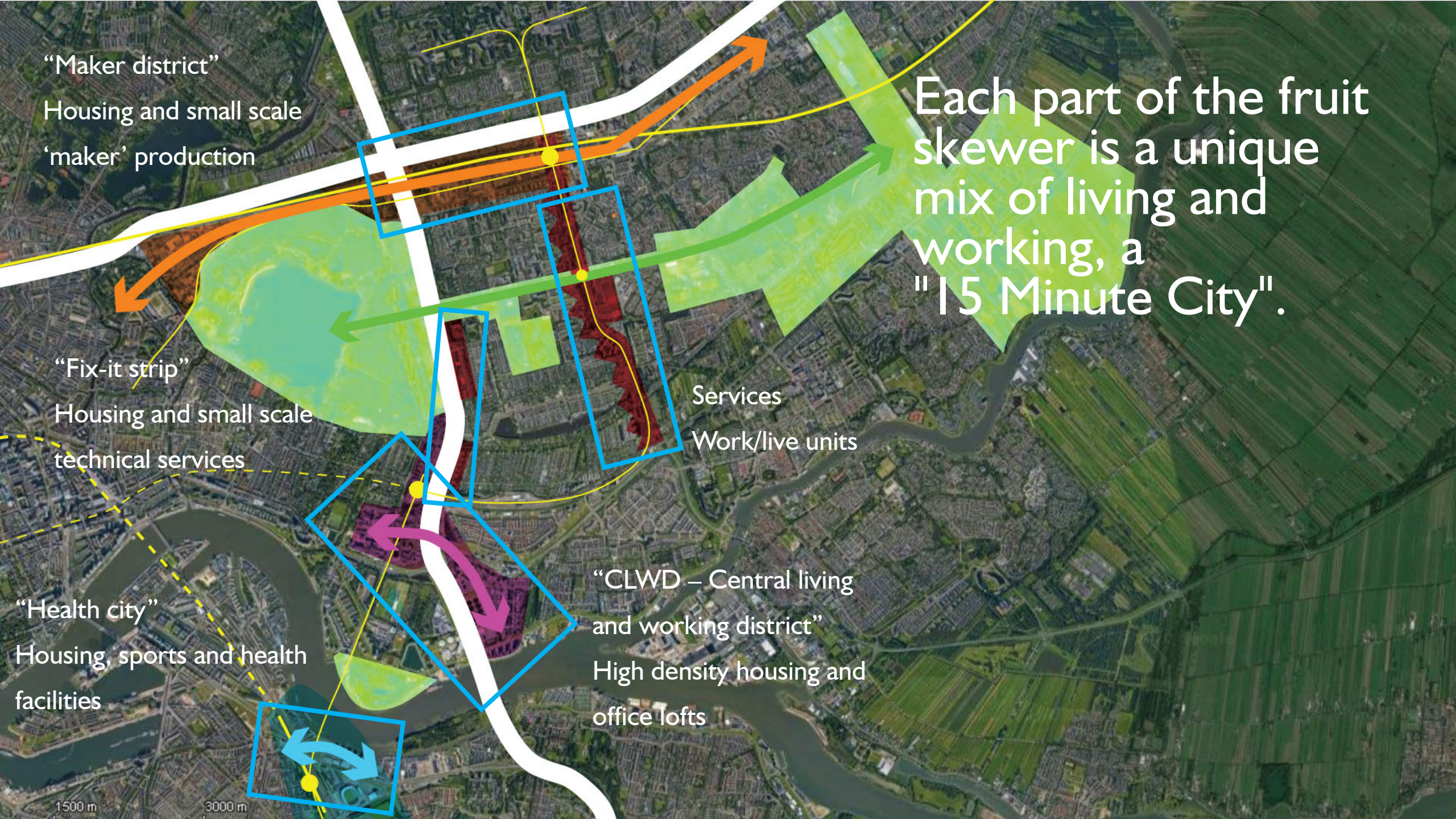
Each part of the fruit
skewer is a unique
mix of living and
working, a
“15 Minute City”.

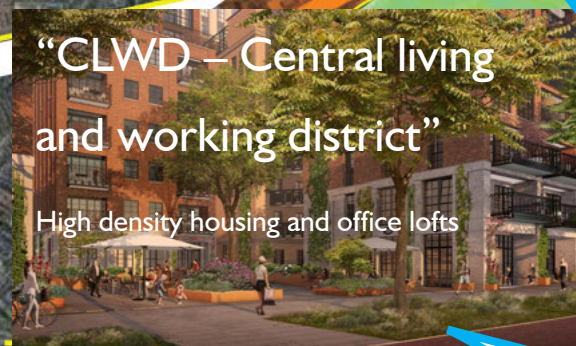
Services
Work/live units

“CLWD – Central living
and working district”
High density housing and
office lofts

1500 m

3000 m





The task is not one big project, but a number of smaller, local projects.



“ALCRO-LINK”

“FOREST-AXIS”

“RIVEURIUM”

“FEYENOORD CITY”

1500 m 3000 m

Tramway Boezemstraat
– Alexandrium

Raised metro line

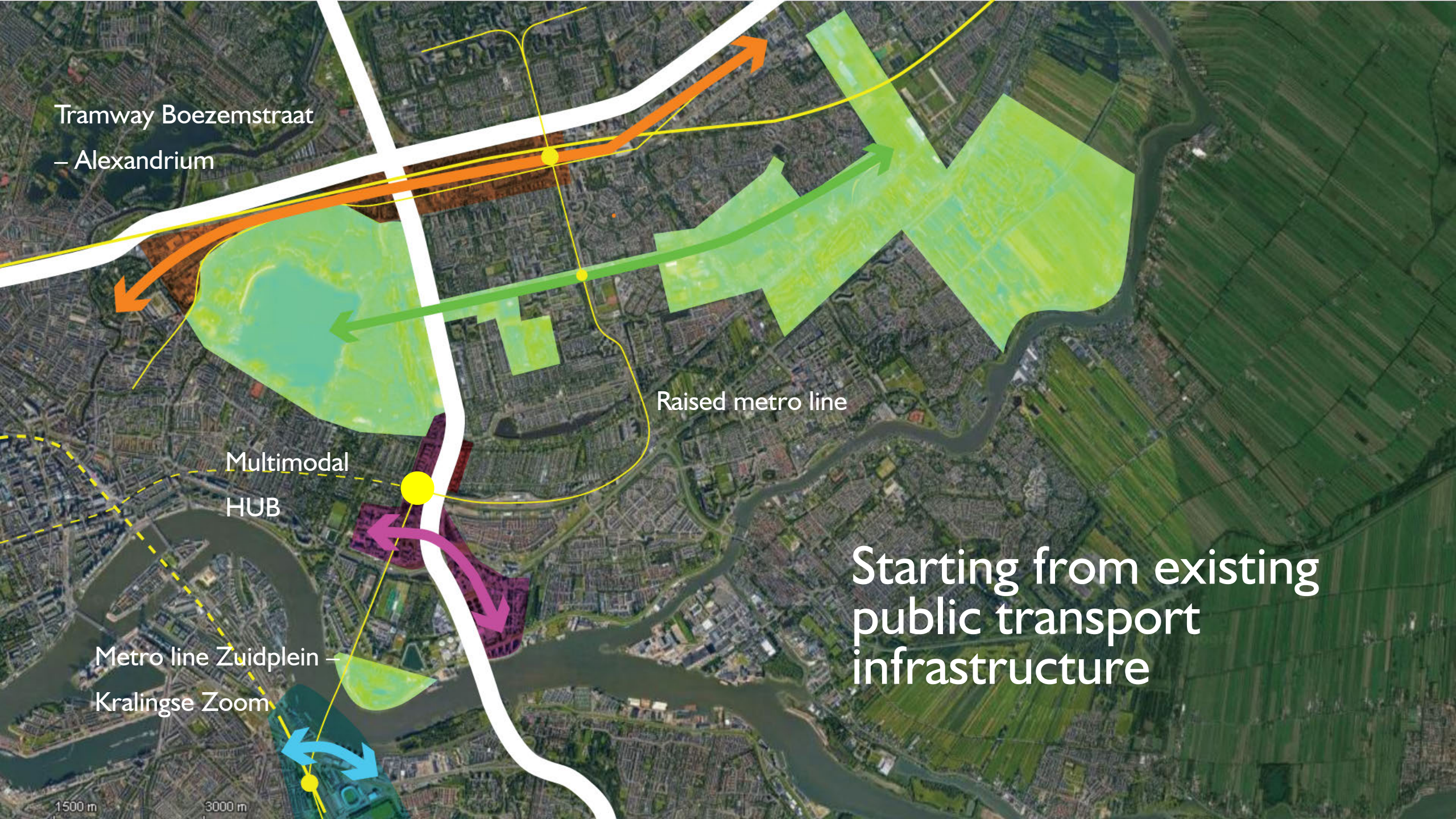
Multimodal
HUB

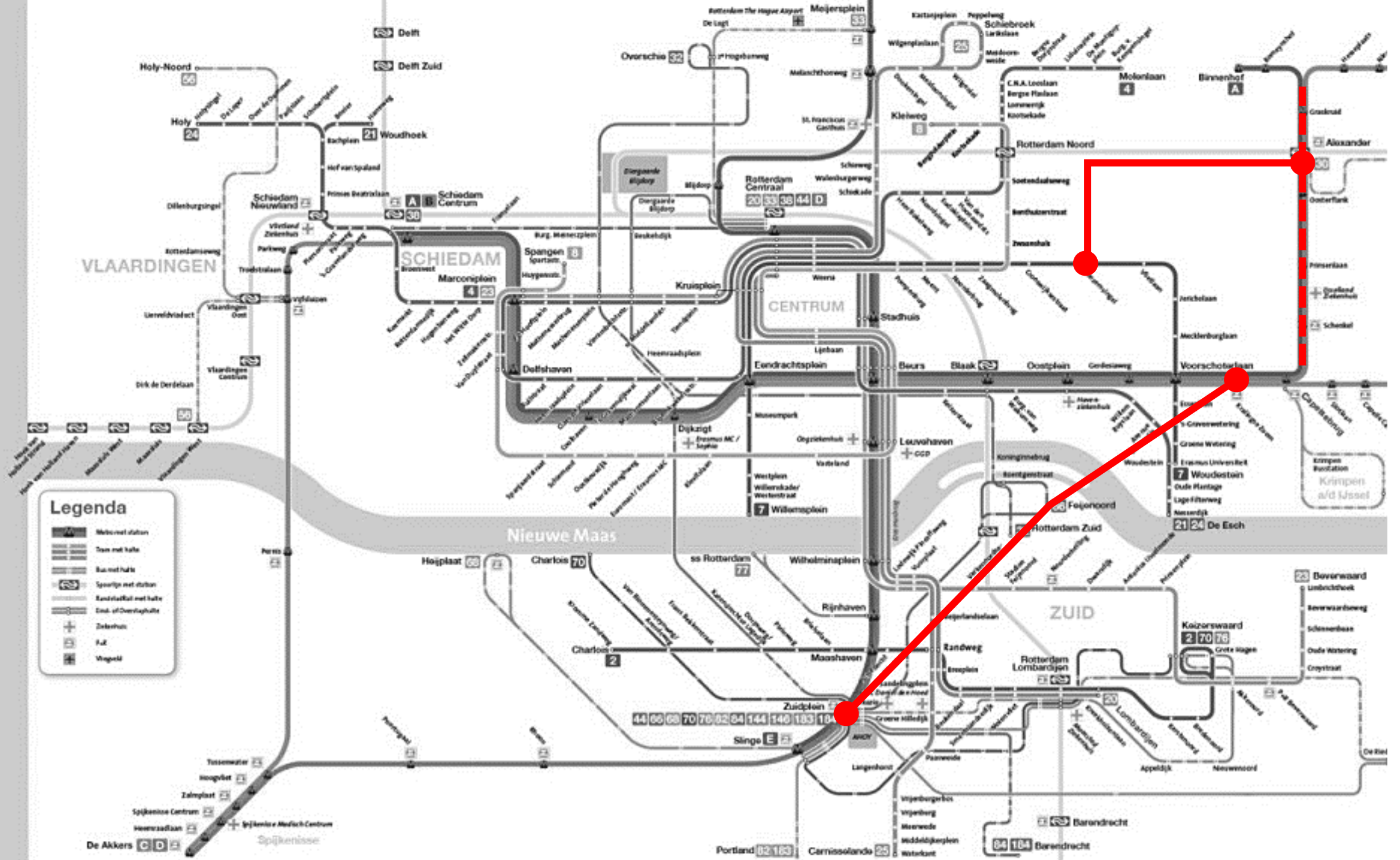
Metro line Zuidplein –
Kralingse Zoom

Starting from existing
public transport
infrastructure

1500 m

3000 m





Legenda

- Metro met station
- Tram met halte
- Bus met halte
- Spoorlijn met station
- RandstadRail met halte
- Eend. of Overstaphalte
- Ziekenhuis
- I.J.
- Vrijdag

5. Green space

- *There is a lot of green in Lage Land but not always of high (ecological) quality.*
- *There is an opportunity to make connections between the various green areas in and around the neighbourhood.*
- *This creates a Forest-Axis from Kralingse Bos to Schollebos and the polder.*
- *The Forest Axis is accompanied by a new watercourse along Prinsenlaan*
- *Prinsenpark becomes Prinsenbos by planting 10,000 new trees*
- *Redesign the sports grounds into Club City*
- *Move the Boszoom around the golf course to create a new parkway*
- *Extension of the Axis to the lake with water sports and floating sports fields*

“Forest-axis”

KRALINGSE BOS

Densification of the edges

New watercourse

SCHOLLEBOS

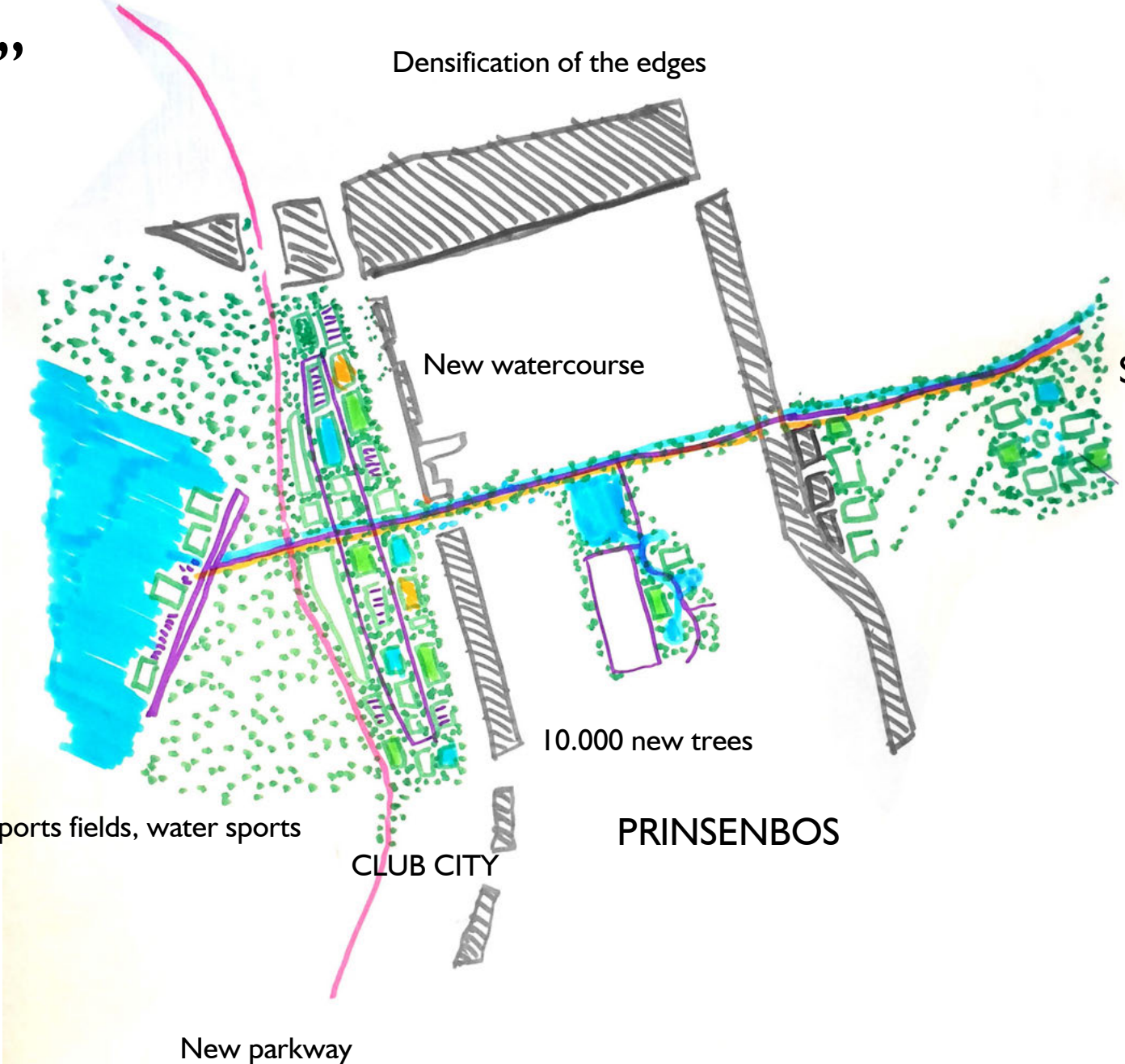
10.000 new trees

Floating sports fields, water sports

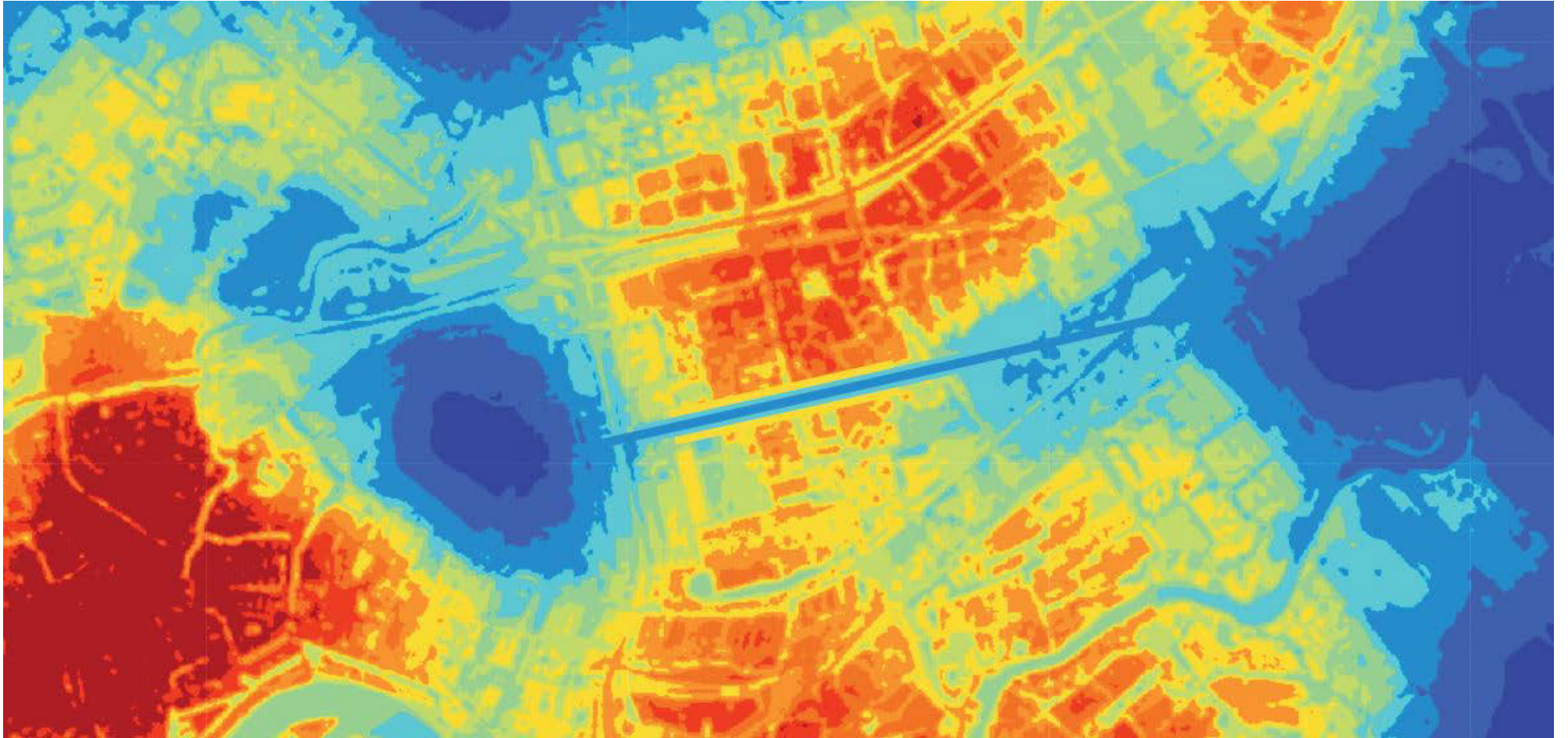
PRINSENBOS

CLUB CITY

New parkway



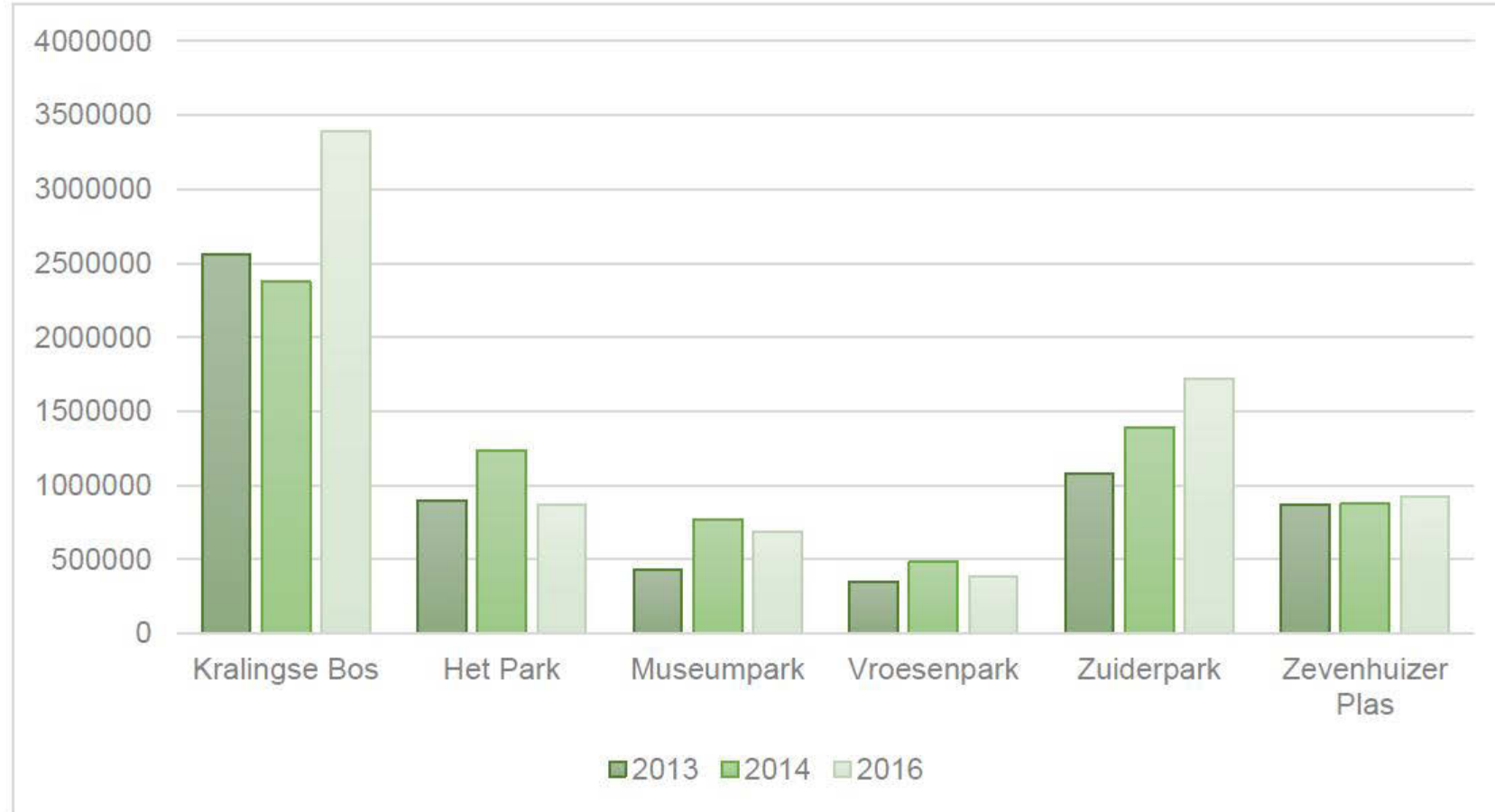
A chance for climate goals



A new watercourse and many new trees along the 'Forest- Axis' create a cool corridor in a warming city.

Extend the capacity of Kralingse Bos

The Kralingse Bos is the busiest green area in the city. In the future, 20,000-30,000 houses will further increase the pressure on the area. That is why an increase in the capacity of the Bos is needed.



Figuur 2.1b Schatting bezoekaantallen aan de parken en de Zevenhuizerplas (Omnibusenquête 2013, 2014, 2016)

Forest as iconic climate project



Internationally, massive efforts are being made to create new forests to combat climate change, as here in Madrid. The Forest Axis could be Rotterdam's answer.

6. Club City

- *The area with the sports fields is currently underused, poorly designed and acts as a barrier.*
- *The social value is positive: the collection of sports clubs of all kinds.*
- *Proposal: While retaining the clubs, make the area accessible to the public and redesign it as an extension of the Kralingse Bos. Redistribution along the Forest-Axis where possible.*



Redistribution and integration of sports fields



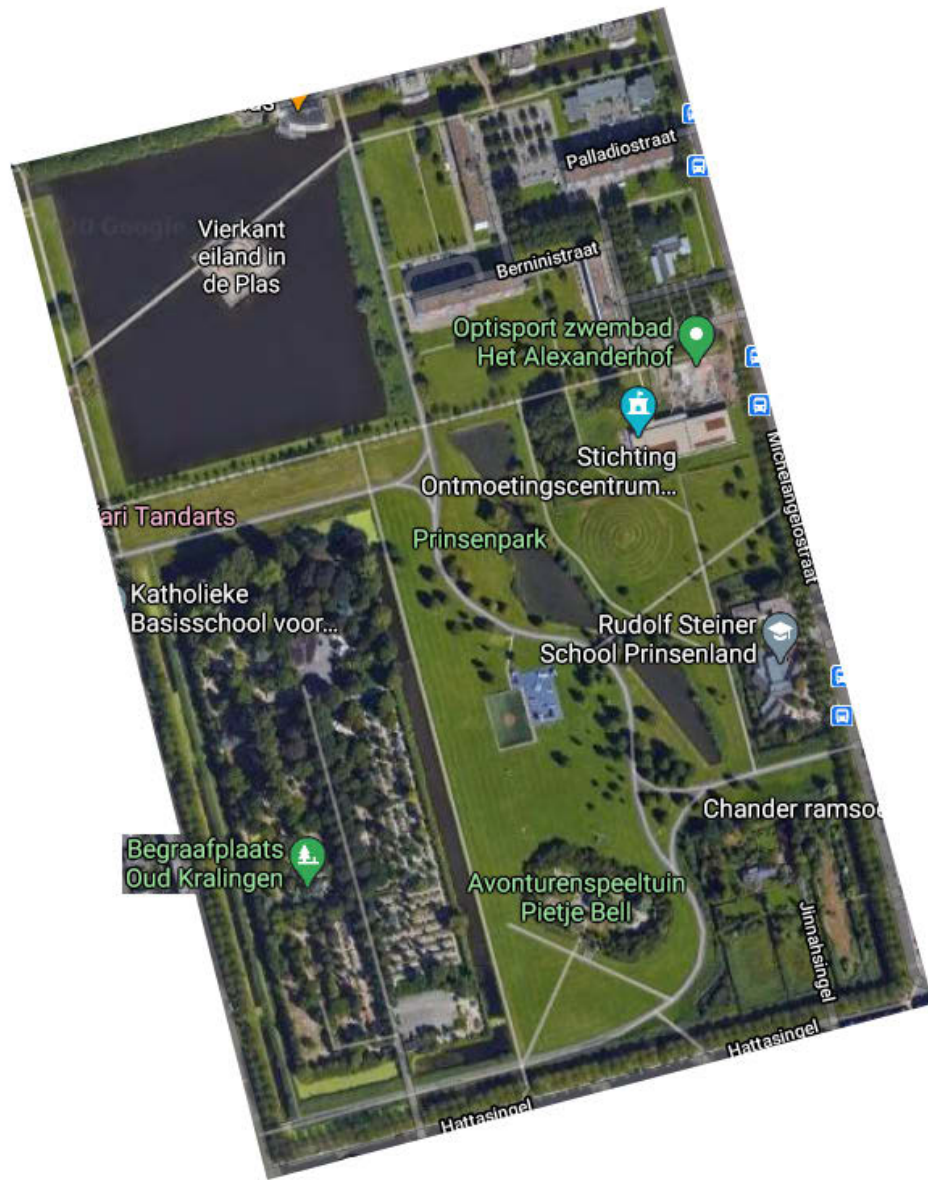
A16 as tribune



Sports forest



Appropriation of the Prinsenpark (-forest)



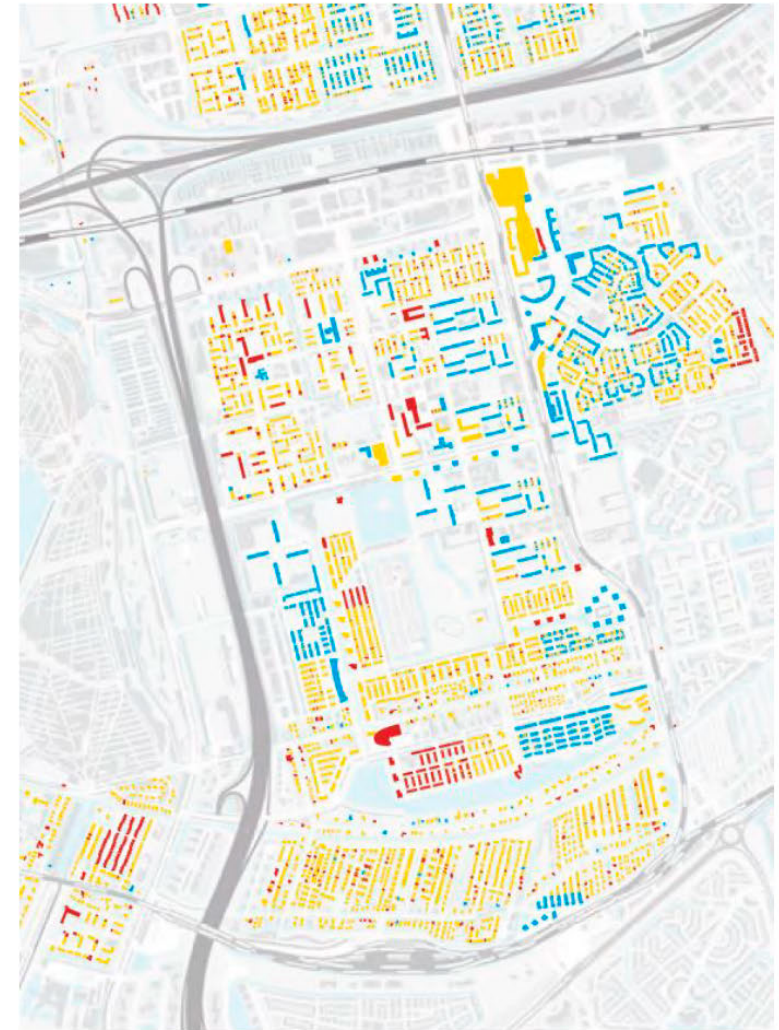
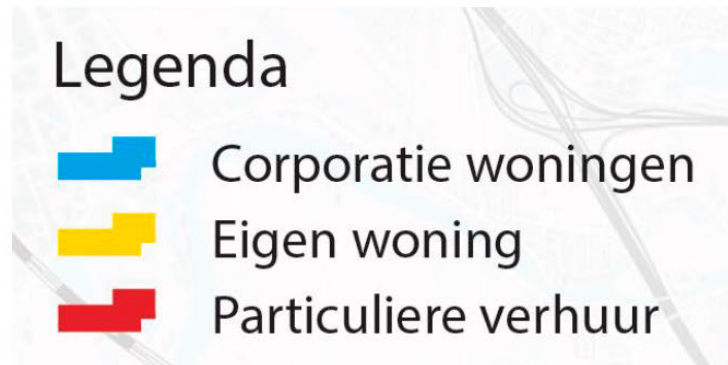
Prinsenlaan: twice as narrow, twice as good



7. Metro line

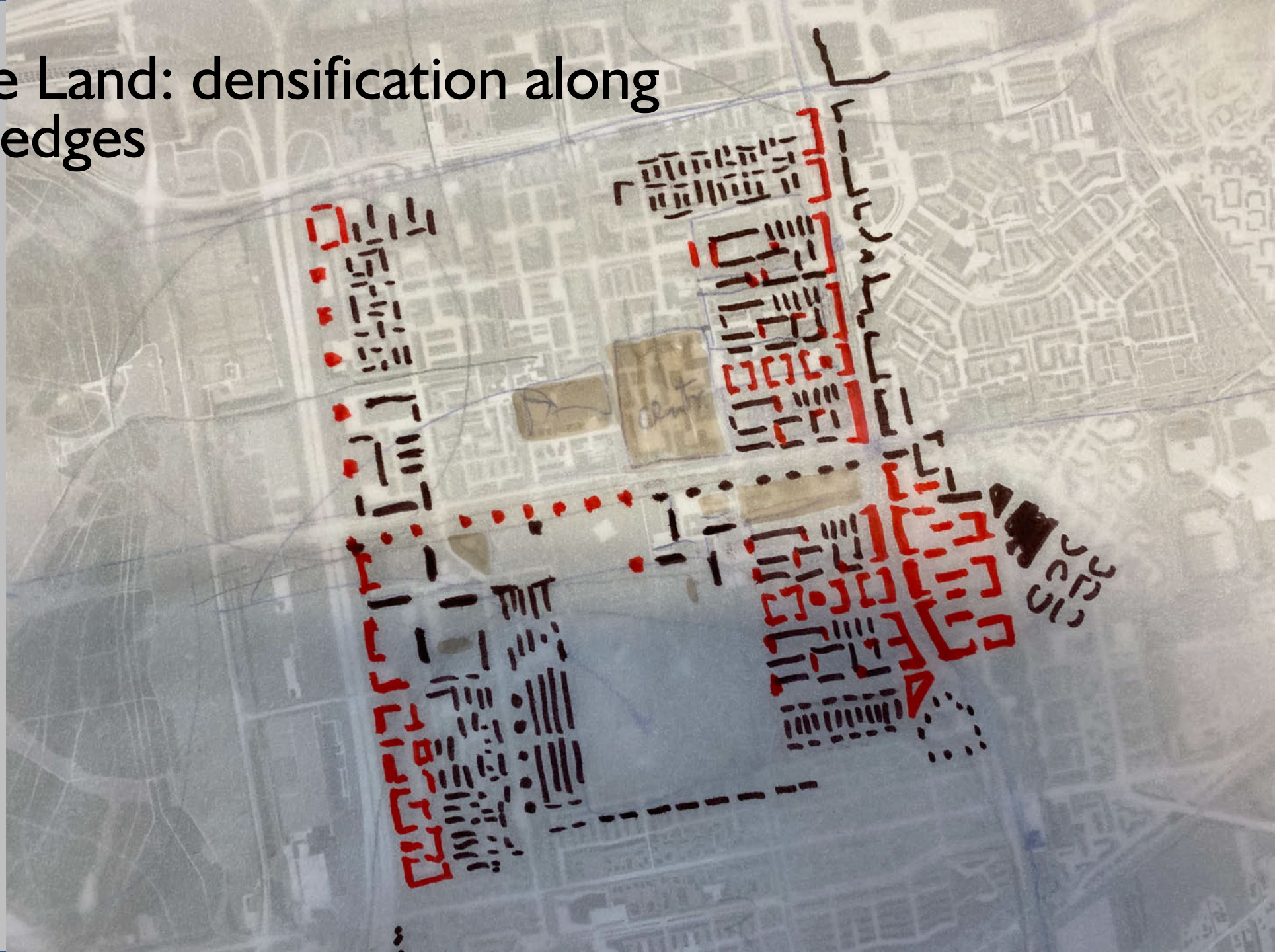
- *Make better use of existing metro line*
- *Develop locations around metro stations*
- *Narrow the road profile*
- *Densification point by point*
- *No shops (no competition with local shopping centre)*

Woning-eigenaren



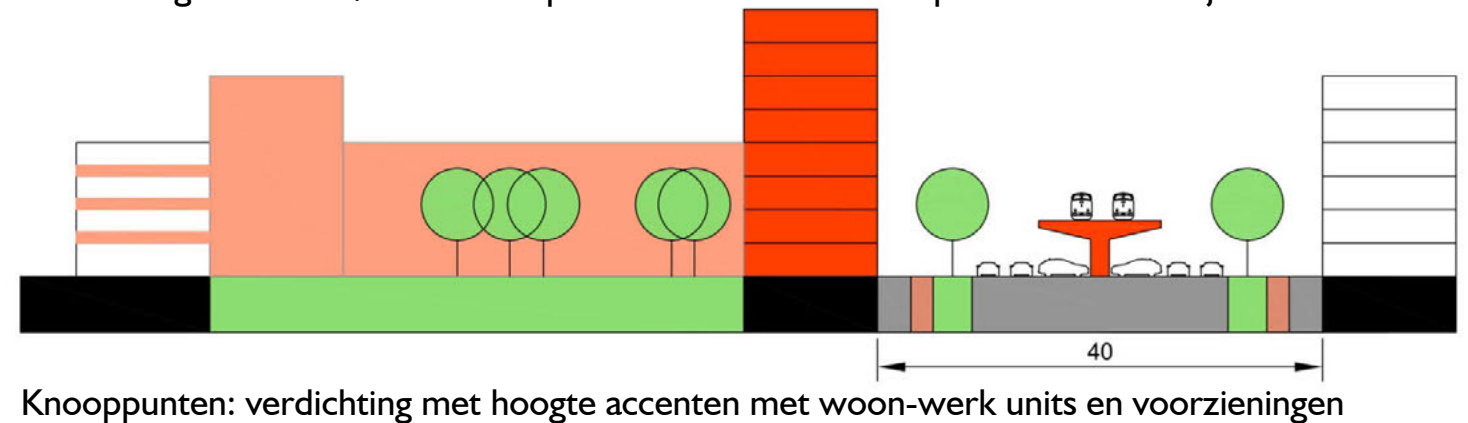
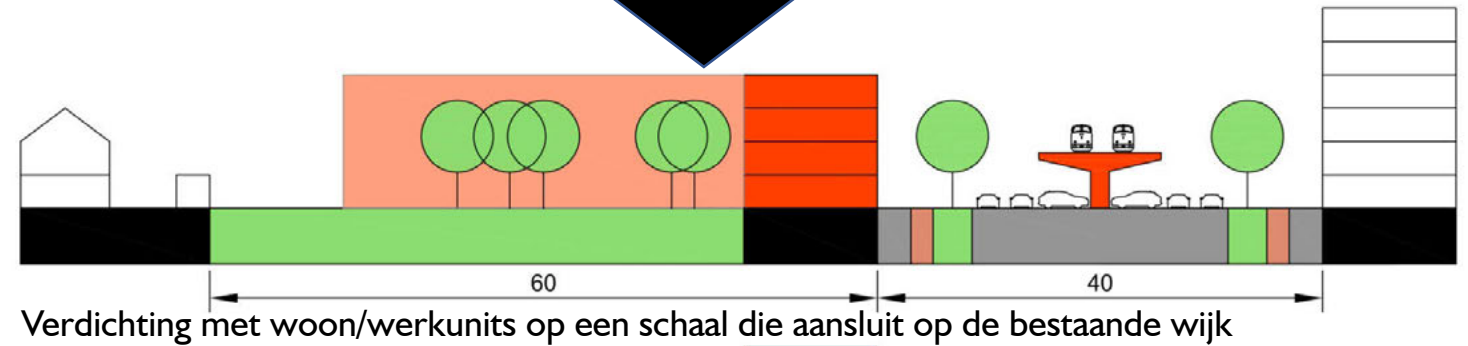
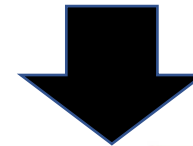
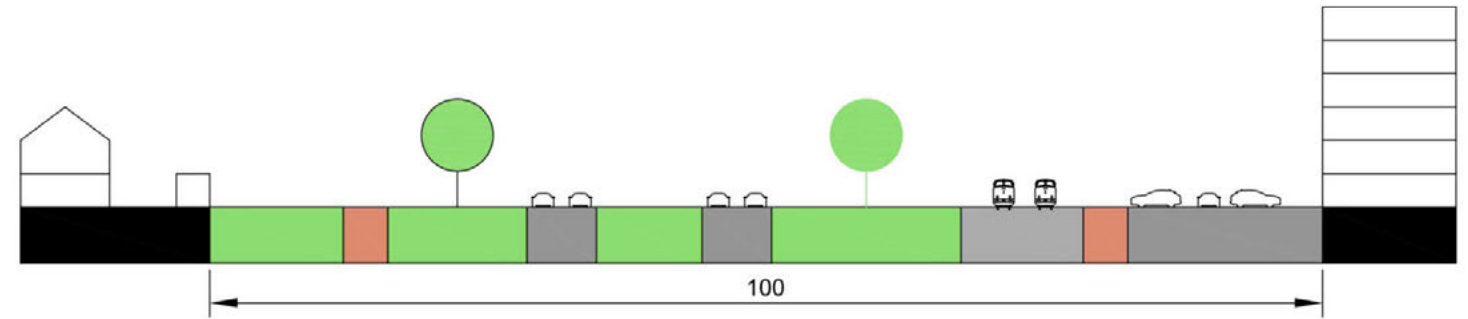
Social problems are concentrated in the housing owned by housing corporations on both sides of the metro line in Lage Land-east and Oosterflank.

Lage Land: densification along the edges



Prins Alexanderlaan as city street

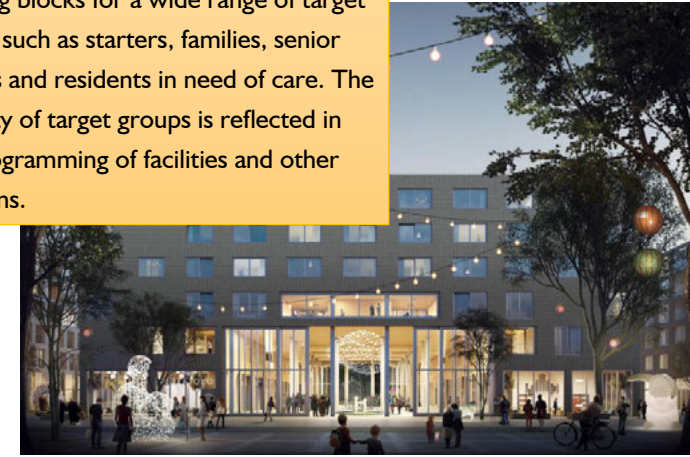
- The Prins Alexanderlaan is 100 metres wide!
- Non-urban profile
- Metro line: raise or underground
- Use the extra space for improvement: housing, a more urban profile and better public space



Densification Prins Alexanderlaan



Housing blocks for a wide range of target groups such as starters, families, senior citizens and residents in need of care. The diversity of target groups is reflected in the programming of facilities and other functions.



"solids" building typology: reorganizable spaces for multifunctional use in a sustainable building structure. The tenants can decide on the size, configuration and use of space.

Active plinths with amenities or living-working units

Super plinth: Multifunctional hall as an event space under the dwellings suitable for entrepreneurship, education, culture, care-related programmes



Green collective inner gardens with connected housing typologies that reflect the combination between intimacy and community and fit in with the green structure of Lage Land.



Example of a city street in a Garden City



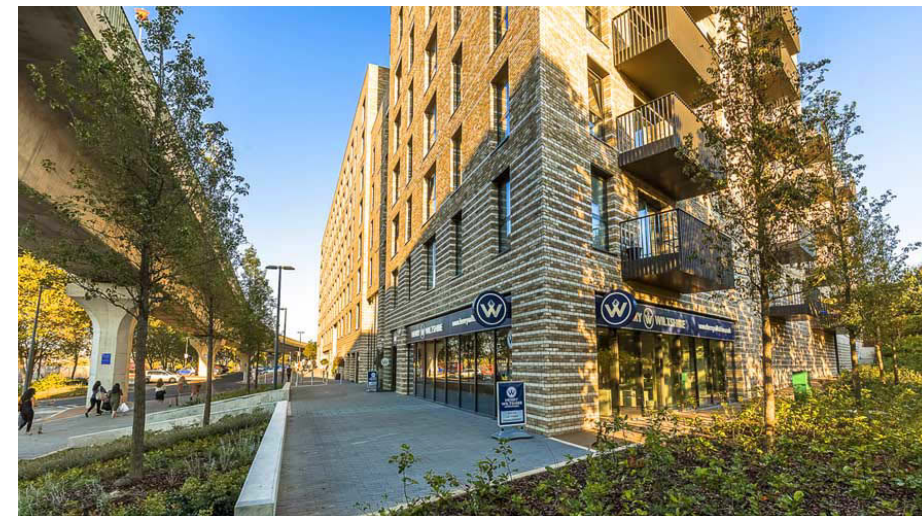
Transformation Calandlaan in Osdorp, Amsterdam: from stand alone blocks to urban street facades with housing and facilities

Raised metro line

By raising the metro line (= cheaper than underground), the frequency of the metro can be increased, traffic nuisance disappears, barriers are reduced and space is created.

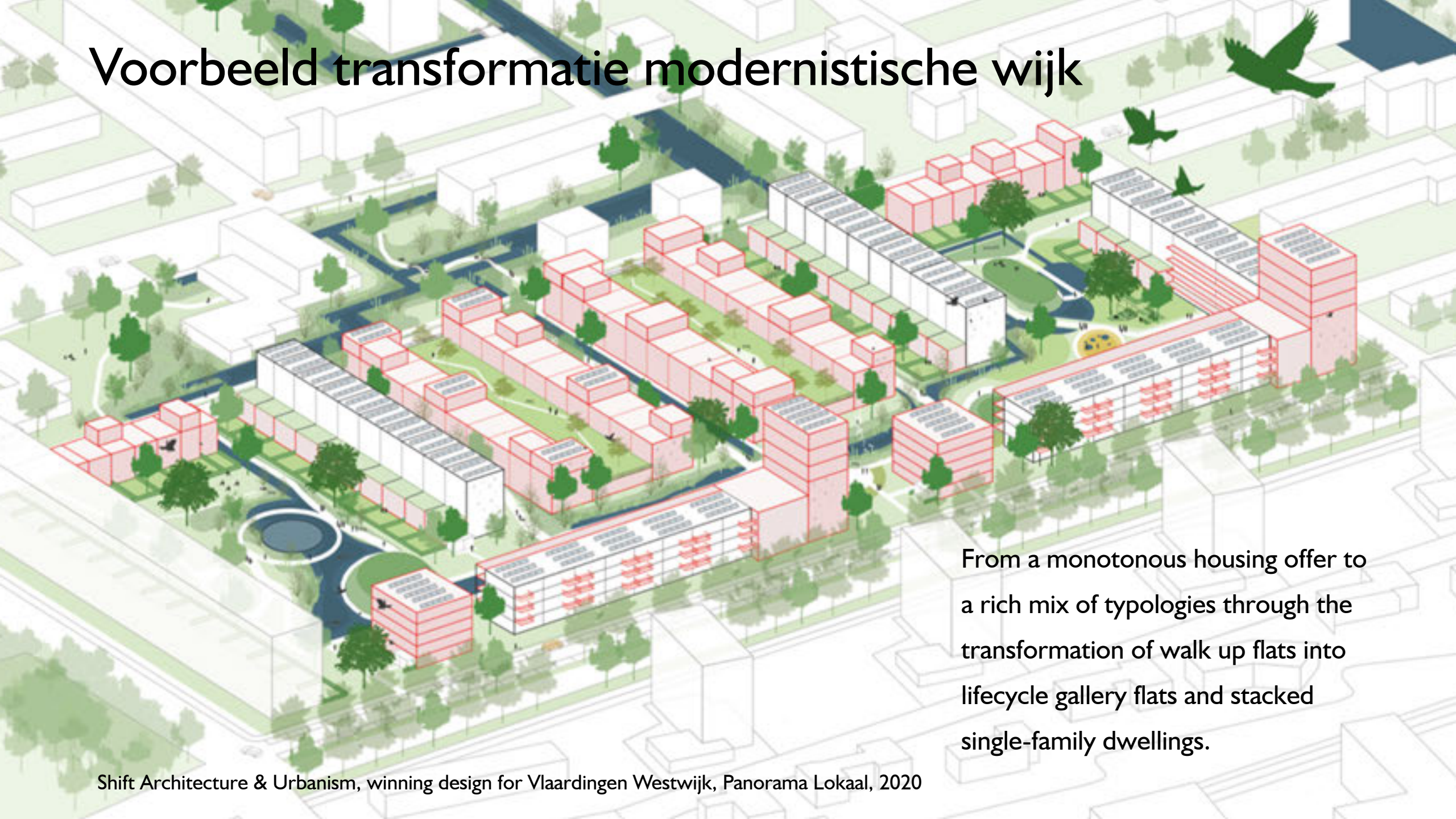


Raised metro line



London Docklands Light Railway, Royal Docks

Voorbeeld transformatie modernistische wijk



From a monotonous housing offer to a rich mix of typologies through the transformation of walk up flats into lifecycle gallery flats and stacked single-family dwellings.



From indeterminate public space to a water-rich, climate-friendly and bio-diverse collective outdoor space

8. Housing program

- *The Rotterdam housing policy is based on the Woonvisie (housing vision) which relies on the idea of 'neighbourhoods in balance'. The starting point is that Lage Land has enough social housing, and there is only a need for medium-priced new buildings.*
- *BUT: The rapidly rising house prices have not yet been sufficiently incorporated; this increase is so fast that the number of homes below the affordable limit is quickly decreasing.*

Uitwerking 1: Lage land



Analyse

- Enige disbalans, tekort aan midden, hoger en topsegment 2017
=> 68% sociaal
=> 17% middensegment
=> 14% hoger + topsegment
- Mogelijkheden met verdichting rond HOV en randen en transformatie bestaande voorraad

Actieve rol gemeente

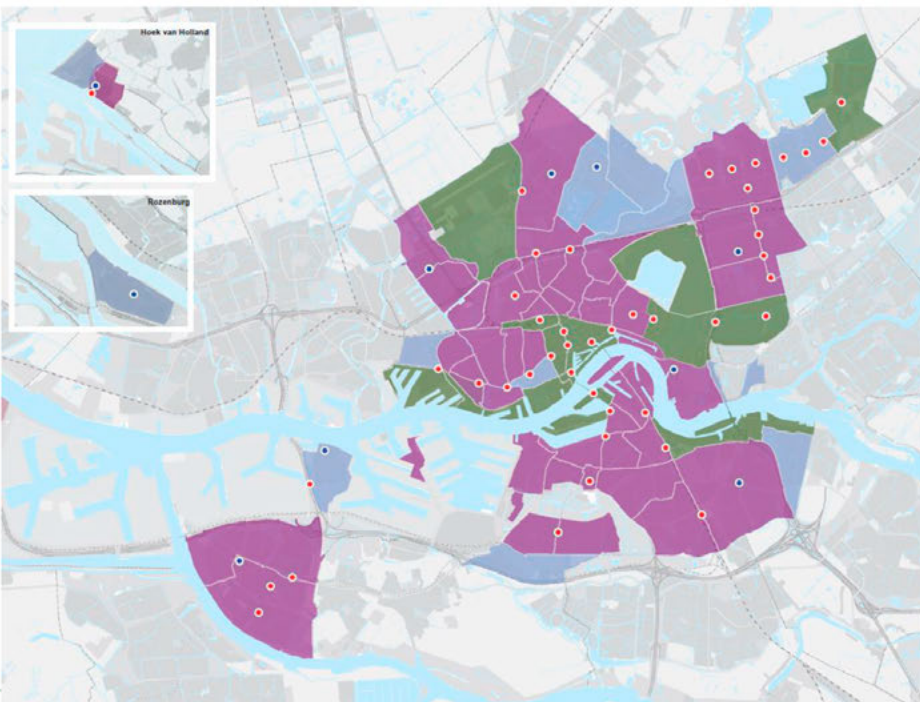
- Groei middensegment
- Nieuwbouw sociaal mogelijk, bijvoorbeeld voor ouderen
- Met name rond HOV- halte of sub-centrum zoekgebied
- Per saldo geen groei sociaal segment

Sturing

- Gericht benutten privaatrechtelijke en publiekrechtelijke instrumenten
- Prestatieafspraken, bijv. over Langer Thuis



Strategie sociaal en middensegment

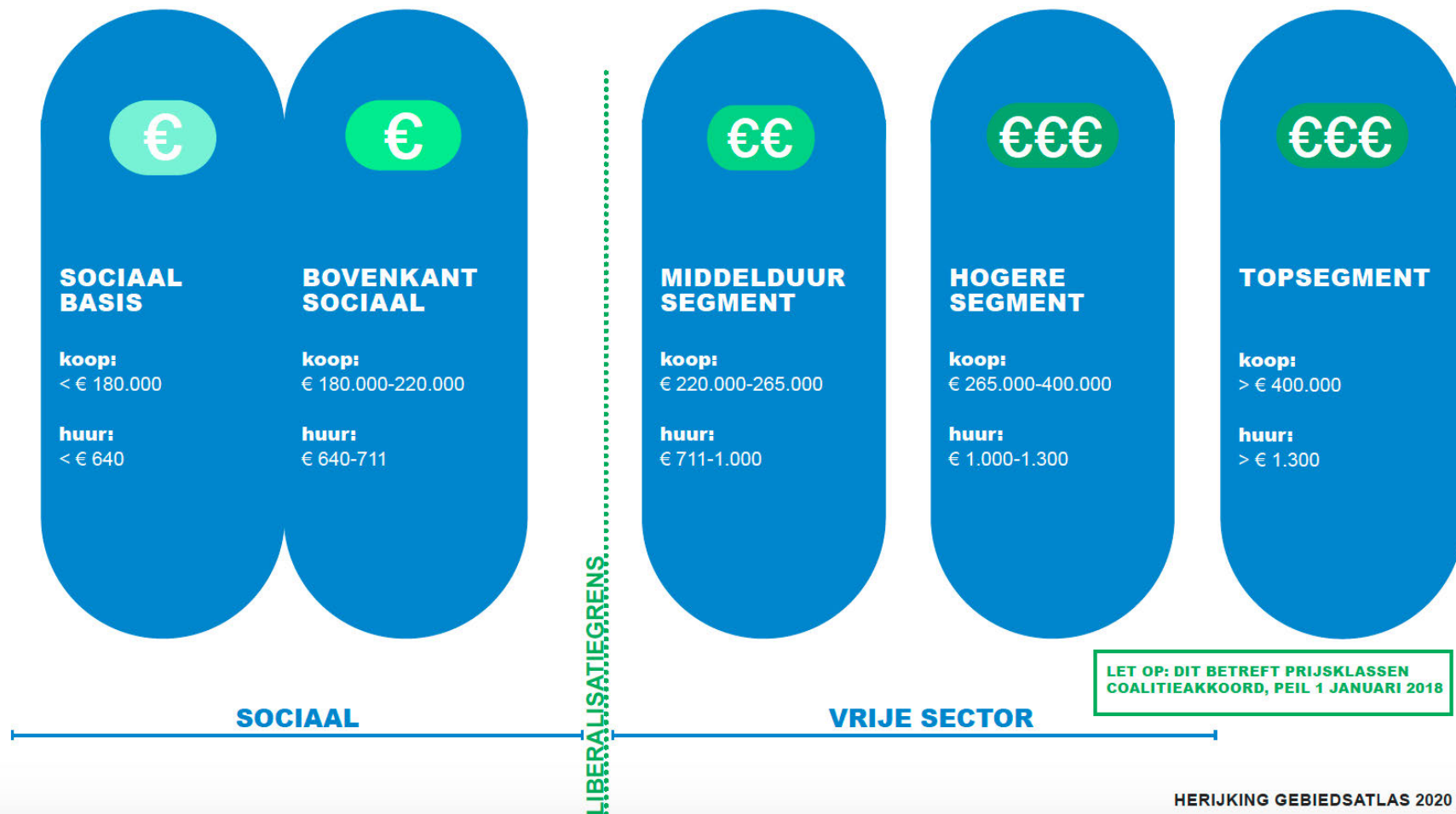


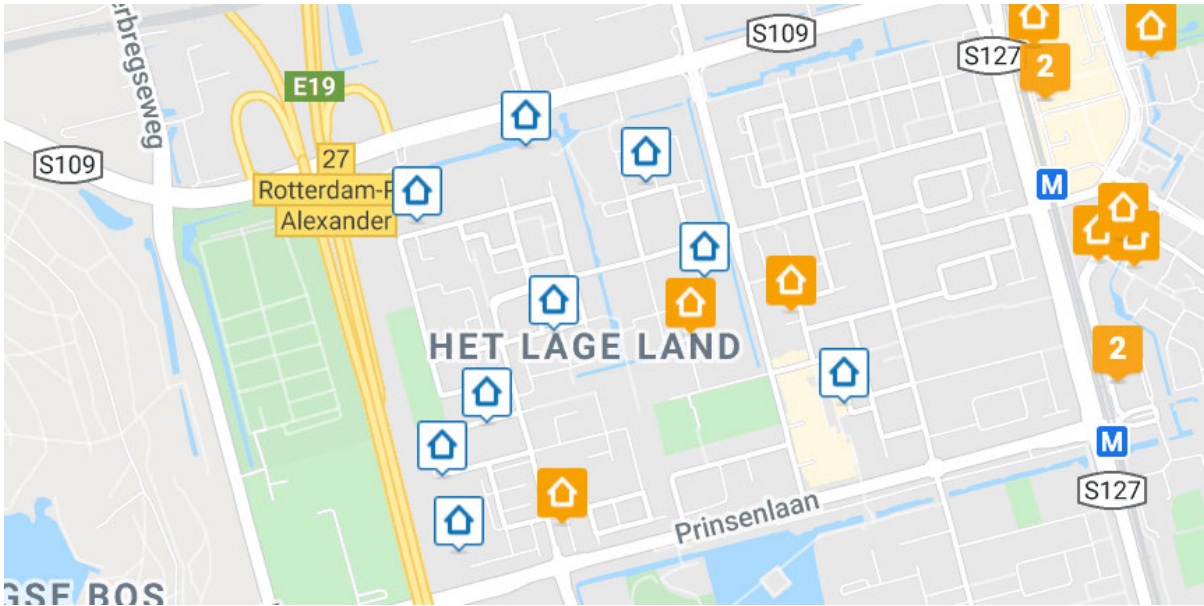
Legenda

- Groei sociaal en middensegment
- Alleen groei middensegment
- Geen tot weinig groei-mogelijkheden: maatwerk.
- Groei nabij HOV, sociaal en middensegment
- Groei nabij subkern, sociaal en middensegment

ROTTERDAMSE SEGMENTEN

Onderstaand overzicht toont de gehanteerde prijsgrenzen per 1-1-2018 zoals vastgesteld in het Addendum en die ook van toepassing zijn op de prijssegmenten zoals benoemd in deze herijking Gebiedsatlas. Voor doeleinden van monitoring zal de voorgestelde methodiek voor indexering uit het Addendum worden aangehouden. Voor actuele prijsgrenzen kan jaarlijks de voortgangsrapportage van de Woonvisie worden geraadpleegd.





Category 'Bovenkant Sociaal' (Top Social), up to 225.000 euro



Category 'Basic Sociaal', up to 180.000 euro

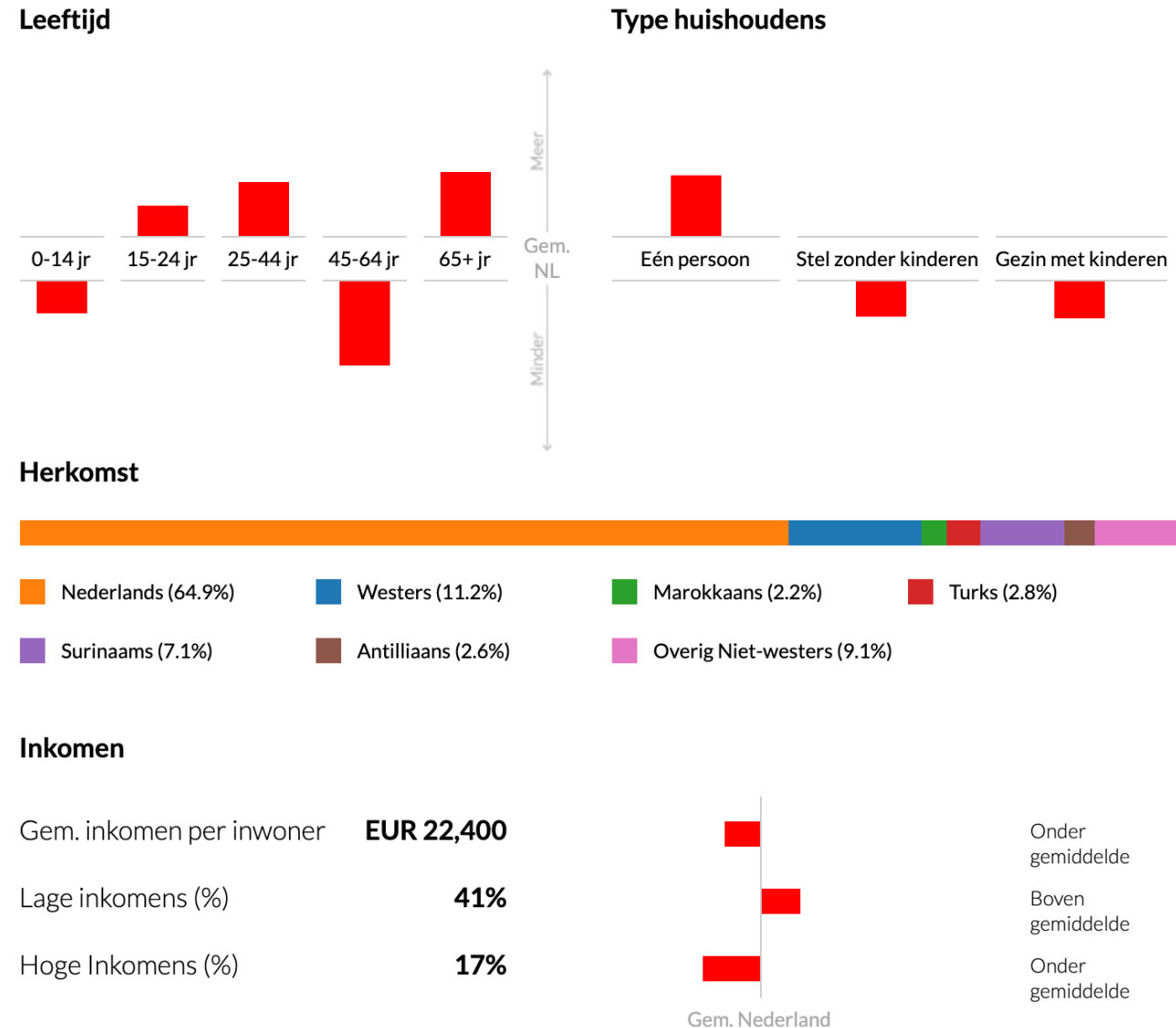
In Lage Land there is very little on offer in affordable housing, both for rent and for sale.



Category 'Basic Social', up to 700 euro rent

Affordable housing must also be added in Lage Land, otherwise there will be too big a difference between the existing and new neighbourhoods.

Affordable housing is in keeping with the (popular) character of the garden city, the needs of the neighbourhood, the (low) incomes in the neighbourhood and the needs at city level (e.g. of young people/ starters).



The average income in Lage Land is 22.400 euro.

Keep outdated and depreciated real estate in reserve!

Outdated and depreciated offices, community centres, churches, etc. are cheap and can therefore attract other groups that are not yet served, such as the 'creative class', starting entrepreneurs, freelancers, etc.: groups that will increase diversity and the neighbourhood economy.



9. Conclusions: working from the existing city

- *The secure city: reinterpretation of the idea of the neighbourhood, living in communities.*
- *The complex city: working towards interesting, layered spaces, adding on to texture/tissues, appreciating different dynamics (rest/residence, sports/movement, infrastructures).*
- *The active green city: fields, forests, waterways, sports and games, activation.*
- *The inclusive city: attention for the middle and lower social classes, diversity in socio-economic composition, contributing to liveliness.*

Colophon

- Commissioned by: Municipality Rotterdam, Department of Urban Development (DSO), Mieke van Leeuwen
- Organised by: International New Town Institute (Michelle Provoost)
- Members New Town Lab: Markus Appenzeller (MLA+), Michelle Provoost (INTI), Oana Rades (Shift), Leeke Reinders (TU Delft), Simone Rots (INTI), Peter Veenstra (Lola).

