Coordinating transport and land use
Making places in North-Holland, the Netherlands

Paul Chorus
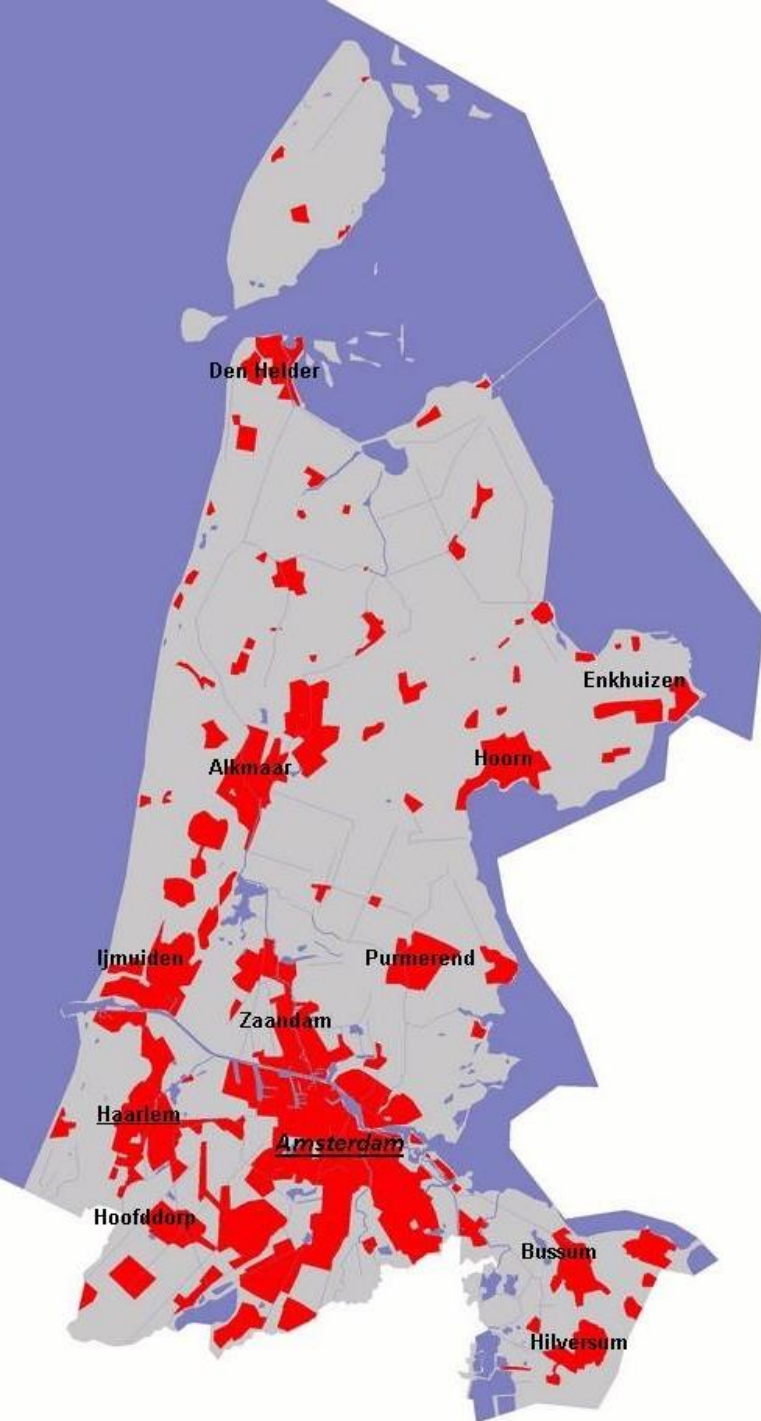Policy Advisor, province of Noord-Holland
Bern, 16 March 2020

Provincie
Noord-Holland

Province North-Holland
Facts and figures

Number of inhabitants: 2.8 million
Number of housing units: 1.3 million
Land in square kilometers: 2.671
Number of inhabitants/km2:   1.062
Number of municipalities: 47
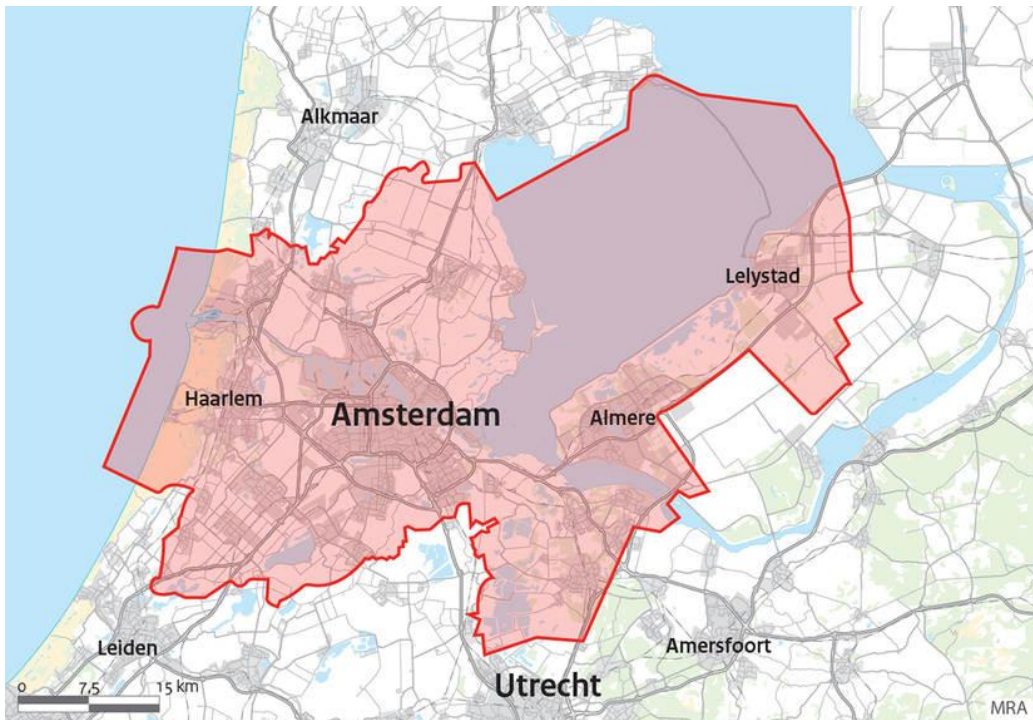Number of foreign visitors (Amsterdam): 7 million

Noord-Holland

Metropolitan Region of Amsterdam (MRA)

Facts and figures

- Number of housing units: 1.12 million
- Number of inhabitants: 2.4 million
- Land in square kilometers: 1.601
- Number of inhabitants/km2:   1.520
- Number of municipalities: 33 (+ 2 provinces and 1 transport authority)
- Number of foreign visitors :   10.2 million

Policy context
Government system in the Netherlands

Level of government	Formal governance levels	Informal governance levels
National	National government	
Sub-national	Provinces (12)	Metropolitan regions (2)
Local	Municipalities (355)	

Provincie
Noord-Holland

Policy context
Government system province of North Holland

King's Commissioner

Provincial Council (55) → Provincial Executives (6)

- Coalition of Liberal Party (VVD), Labour Party (PvdA), Democrats (D66)

- Finance, Circular Economy, ports, Culture, Sports and Heritage
- Housing & Spatial Planning, Water Management
- Economy, Agriculture,, Recreation, Tourism, Governance and Europe
- Mobility, Liveability, Schiphol Airport, Health and Environment
- Climate, Energy and Subsidies
- Nature and Landscape, Land

Provincie Noord-Holland

Policy context
Area vision North Holland 2050

- Main ambition: striving for a balance between economic growth and quality of life

Other ambitions

- Urbanisation is to take place in or adjacent to already built-up areas

- Optimal coordination between spatial developments and infrastructure

NOORD-HOLLAND IN BEWEGING

Provincie Noord-Holland

Trends
Challenges

- *Urbanisation*: 230.000 new dwellings until the year 2040

- *Mobility:* increasing need for mobility, movement patterns tend to be more dispersed

- *Employment growth* is concentrated in and directly around Amsterdam

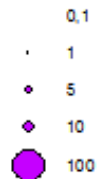- *Population growth* takes place in Amsterdam and increasingly in adjacent municipalities

Provincie
Noord-Holland

Trends
Urbanisation

Plans for houses, offices and business parks

Office plans until 2040 (square meters)

- 100
- 1.000
- 10.000
- 100.000
- 1.000.000

Plans for business parks until 2040 (hectares)

- 0,1
- 1
- 5
- 10
- 100

Plans for houses until 2050 (number of units)

- 10
- 100
- 1.000
- 10.000

Provincie
Noord-Holland
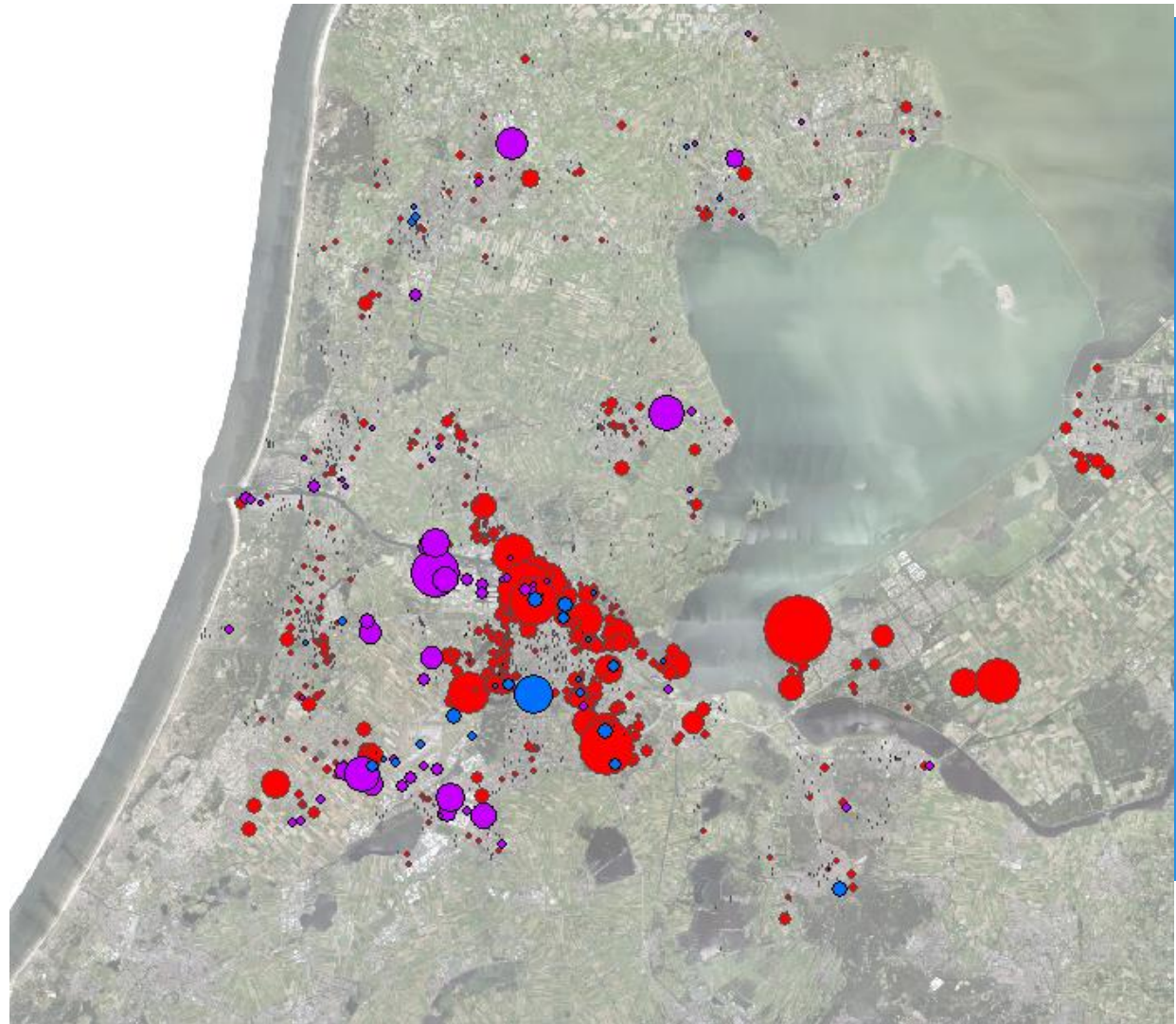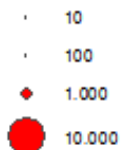
Trends
Mobility

Potential bottlenecks for roads, railways and buses

Trends
Job growth

2010-2017: Ontwikkeling banen en bevolking 15-65

■ Banen naar kenmerken   ■ Bevolking leeftijd 15-64 jaar

Provincie Noord-Holland
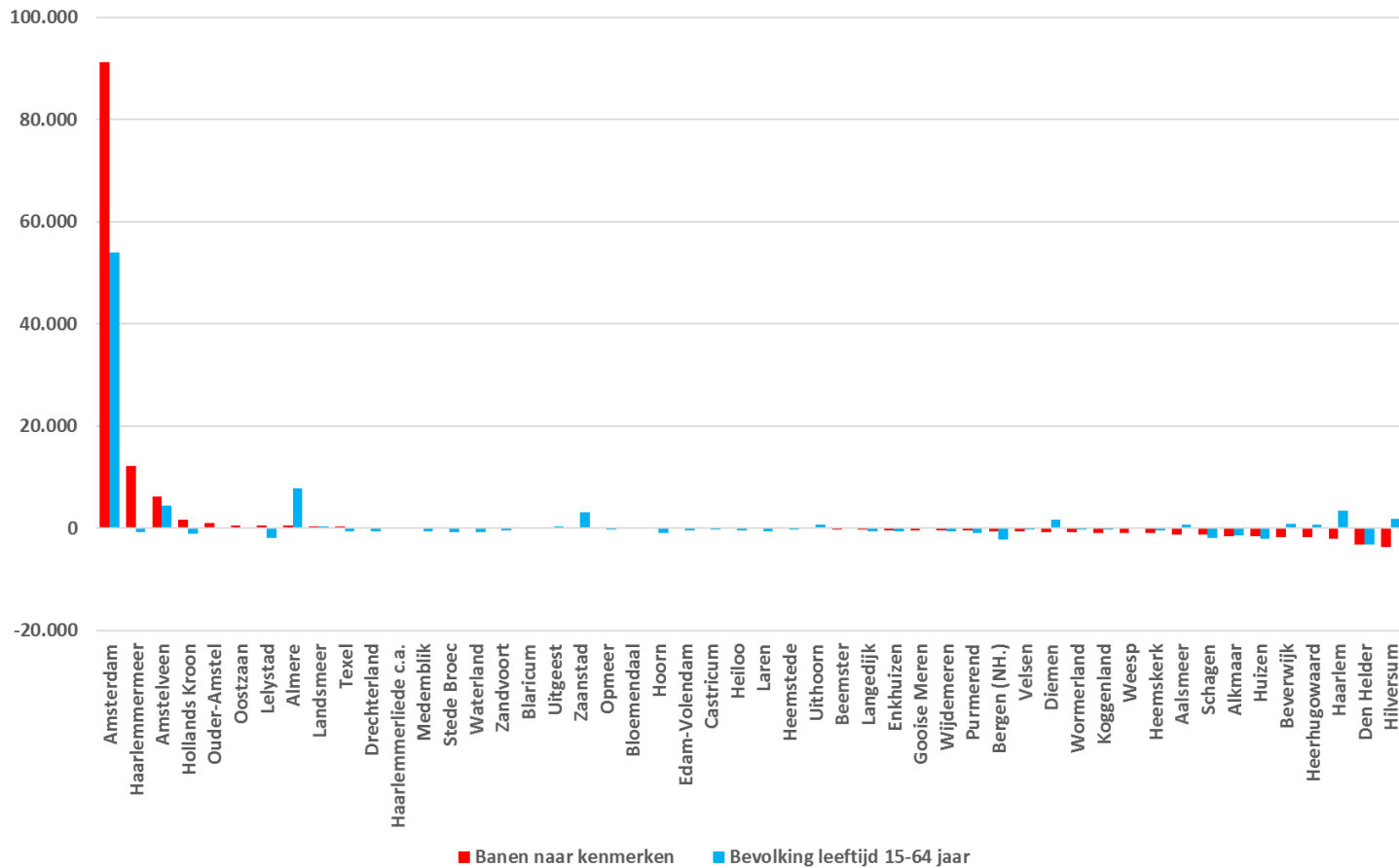
Trends
Daily urban system 2006

Provincie Noord-Holland

Trends
Daily urban system 2016

BEROEPSBEVOLKING WERKZAAM IN AMSTERDAM

DAILY URBAN SYSTEM

Aandeel van beroepsbevolking werkzaam in Amsterdam

Data december 2016

- < 5% van beroepsbevolking
- 5 - 15% van beroepsbevolking
- 15 - 25% van beroepsbevolking
- > 25% van beroepsbevolking

Provincie Noord-Holland
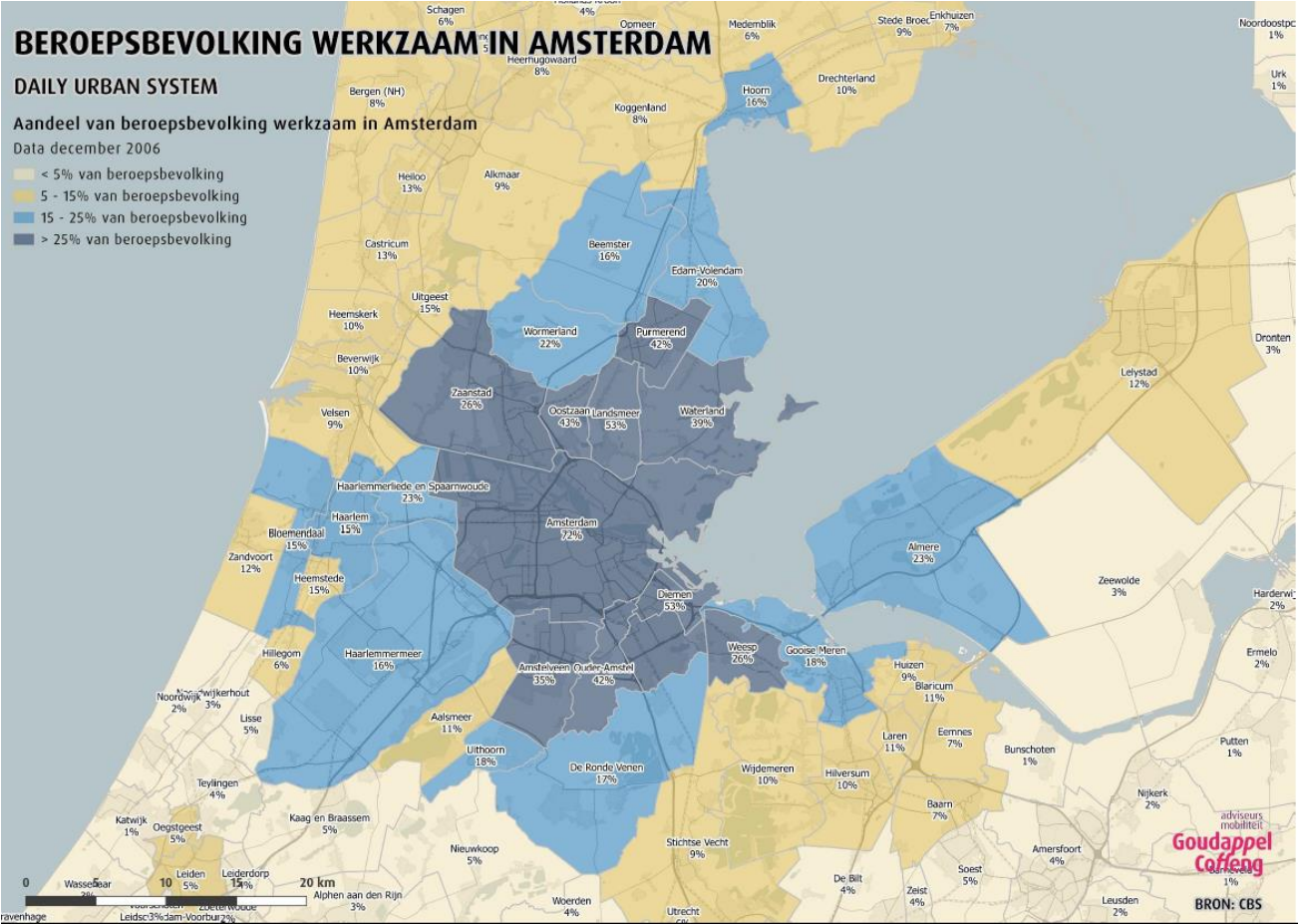
PROVINCIE NOORD-HOLLAND & VERENIGING DELTAMETROPOOL

MAAK

PLAATS!

WERKEN AAN KNOOPPUNTONTWIKKELING
IN NOORD-HOLLAND

MAAK PLAATS!

MAAK PLAATS!

MAAK PLAATS!

MAAK PLAATS!

MAAK PLAATS!

MAKE SPACE!

Ten principles for developing a TOD-strategy in North-Holland

1. FREQUENCY INCREASE AND SPATIAL DEVELOPMENT ARE MUTUALLY REINFORCING

2. REALIZE AT LEAST 50% OF THE NEWLY-BUILT HOMES WITHIN THE CATCHMENT AREAS OF STATIONS

3. PRIORITISE EXISTING LAND USE PLANS WITHIN THE URBAN GROWTH BOUNDARY AROUND STATIONS

4. ALIGN THE URBAN GROWTH BOUNDARY WITH THE TRANSIT-ORIENTED DEVELOPMENT STRATEGY

5. REDUCE THE NUMBER OF VACANT OFFICES IN AREAS THAT ARE NOT MULTIMODAL ACCESSIBLE

6. FOCUS ON THE QUALITY OF WORKING ENVIRONMENTS IN THE MOST ACCESSIBLE LOCATIONS

7. LOCATE REGIONAL FACILITIES PREFARABLY AT MULTIMODAL ACCESSIBLE LOCATIONS

8. IMPROVE THE TRANSFER BETWEEN MODES OF TRANSPORT

9. DEVELOP NODES AS 'GATEWAYS' TO THE COUNTRYSIDE
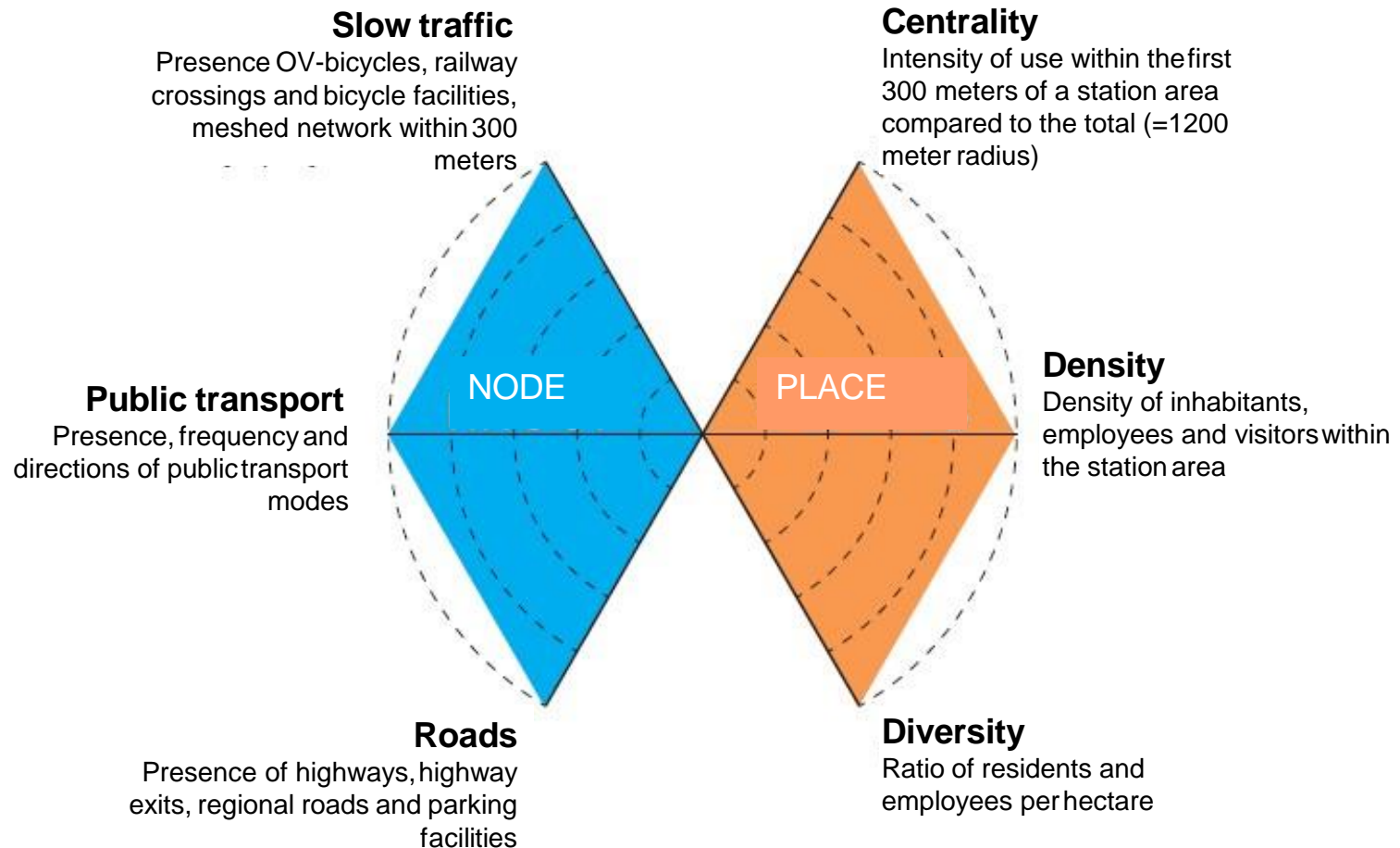
10. MAKE SPACE!

Provincie Noord-Holland

MAKE SPACE!

Principle 2

Principle 2: realize at least 50% of the newly-built homes within the catchment areas of stations

MAKE SPACE!
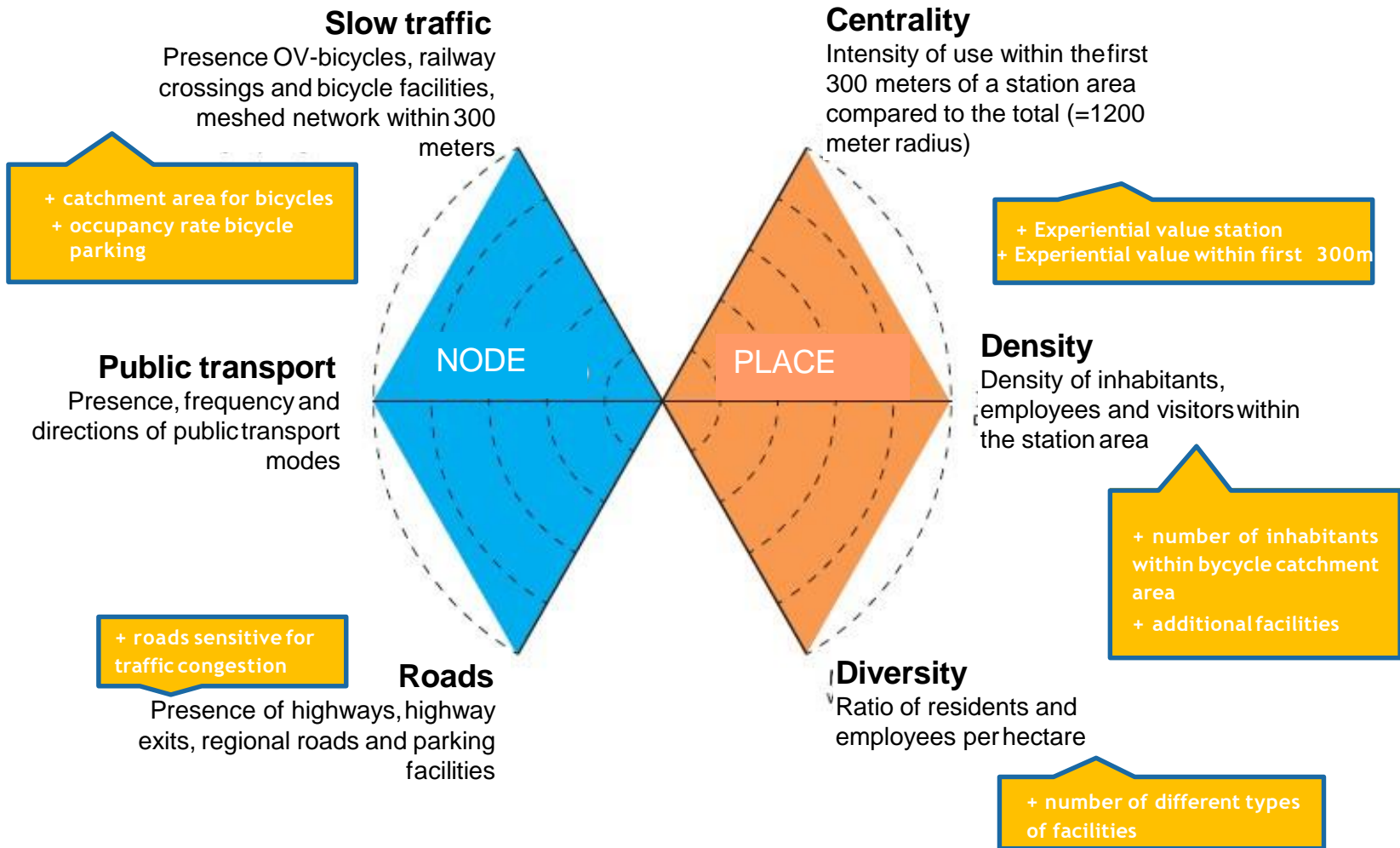## *Theoretical starting point; the butterfly model*

Slow traffic
Presence OV-bicycles, railway crossings and bicycle facilities, meshed network within 300 meters

Centrality
Intensity of use within the first 300 meters of a station area compared to the total (=1200 meter radius)

Public transport
Presence, frequency and directions of public transport modes

NODE

PLACE

Density
Density of inhabitants, employees and visitors within the station area

Roads
Presence of highways, highway exits, regional roads and parking facilities

Diversity
Ratio of residents and employees per hectare

MAKE SPACE!
Application of the butterfly model

AMSTERDAM SLOTERDIJK

KNOOP
Intercity station
- Current situation
- Potential development
- Promising station typology

PLAATS
Bestemming: vooral werken en voorzieningen
- Current situation
- Potential development
- Promising station typology
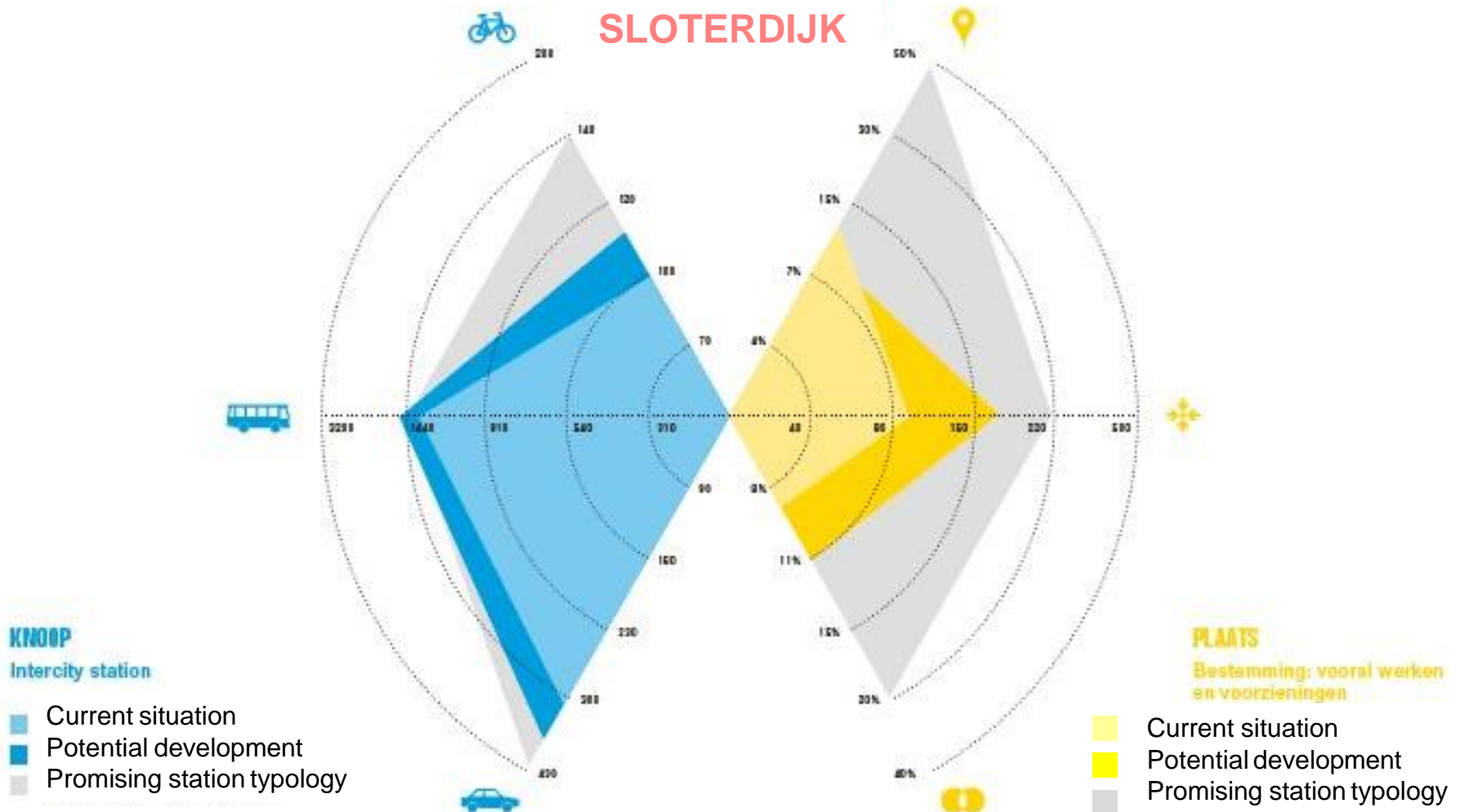
MAKE SPACE!
Butterfly model 2.0

Slow traffic
Presence OV-bicycles, railway crossings and bicycle facilities, meshed network within 300 meters

+ catchment area for bicycles
+ occupancy rate bicycle parking

Centrality
Intensity of use within the first 300 meters of a station area compared to the total (=1200 meter radius)

+ Experiential value station
+ Experiential value within first 300m

Public transport
Presence, frequency and directions of public transport modes

NODE

PLACE

Density
Density of inhabitants, employees and visitors within the station area

+ number of inhabitants within bycycle catchment area
+ additional facilities

+ roads sensitive for traffic congestion

Roads
Presence of highways, highway exits, regional roads and parking facilities

Diversity
Ratio of residents and employees per hectare

+ number of different types of facilities

MAKE SPACE!
Application of the butterfly model 2.0

AmsterdamZuid

wereldstad

Top drie korte termijn acties:
Frequentie van OV verhogen
Capaciteit fietsenstalling uitbreiden
Start realisatie van geplande 5700 woningen

Top drie middellange/ lange termijn acties:
Frequentie van OV verhogen
Fietspaden aanleggen (fijnmazigheid LV netwerk verbeteren)
Upgrade naar "Internationaal" station

Top drie stations in deze typologie:
Amsterdam Zuid
Schiphol

Netwerkwaarde LV

Nabijheid

Netwerkwaarde OV

Intensiteit

Netwerkwaarde Weg

Menging

Legend:
- knoop huidig
- knoop mogelijk
- knoop wereldstad
- plaats huidig
- plaats mogelijk
- plaats wereldstad
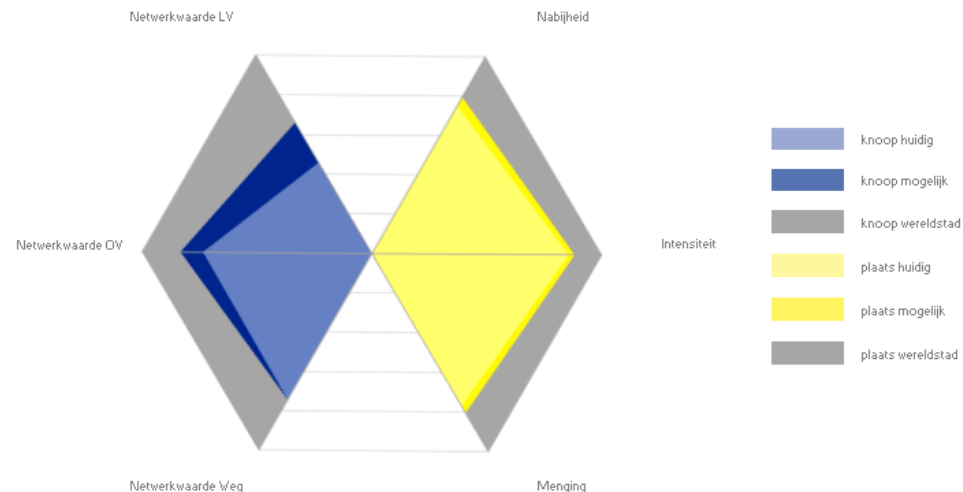
stationscode
8.01

Huidig			Knoop x Plaats:	ONBALANS	-0,12		
Type Knoop:	intercity			Type Plaats:	bestemming		

Langzaam Verkeer	98 OV	1275 Wegen	287,5 Nabijheid	41% Intensiteit	505 Menging	37%
fietsenstalling	5184 in- en uitstappers	43.716 parkeerplekken	6 centrumfunctie (max 50%):	7% inwoners	19.687 lokale menging inw/werk	27%
bezettingsgraad	97% trein/ uur	12 bezettingsgraad	66% intensiteit 300m	17.056 werknemers	41.991 types reg. voorzieningen	3
ov-fiets verhuur	ja tbm/ uur	50 snelwegafslag	1 intensiteit 1200m	121.765 bezoekers	52.438	
spoorovergang	ja	rich snelweg 3200m	4 comfort station (max 25%):	25% + inwoners (fiets-isochroon)	71.659	
		rich regionale weg 3200m	0 verwarmd wachten	1		
		filegevoelig	nee beschut wachten	1 invloedsgebied	368	
buitenpoort	nee		televisieschermen	1		

MAKE SPACE!
Station typologies

Living environments

Working and service environments

BUITENPOORT

Park 'N' Bike
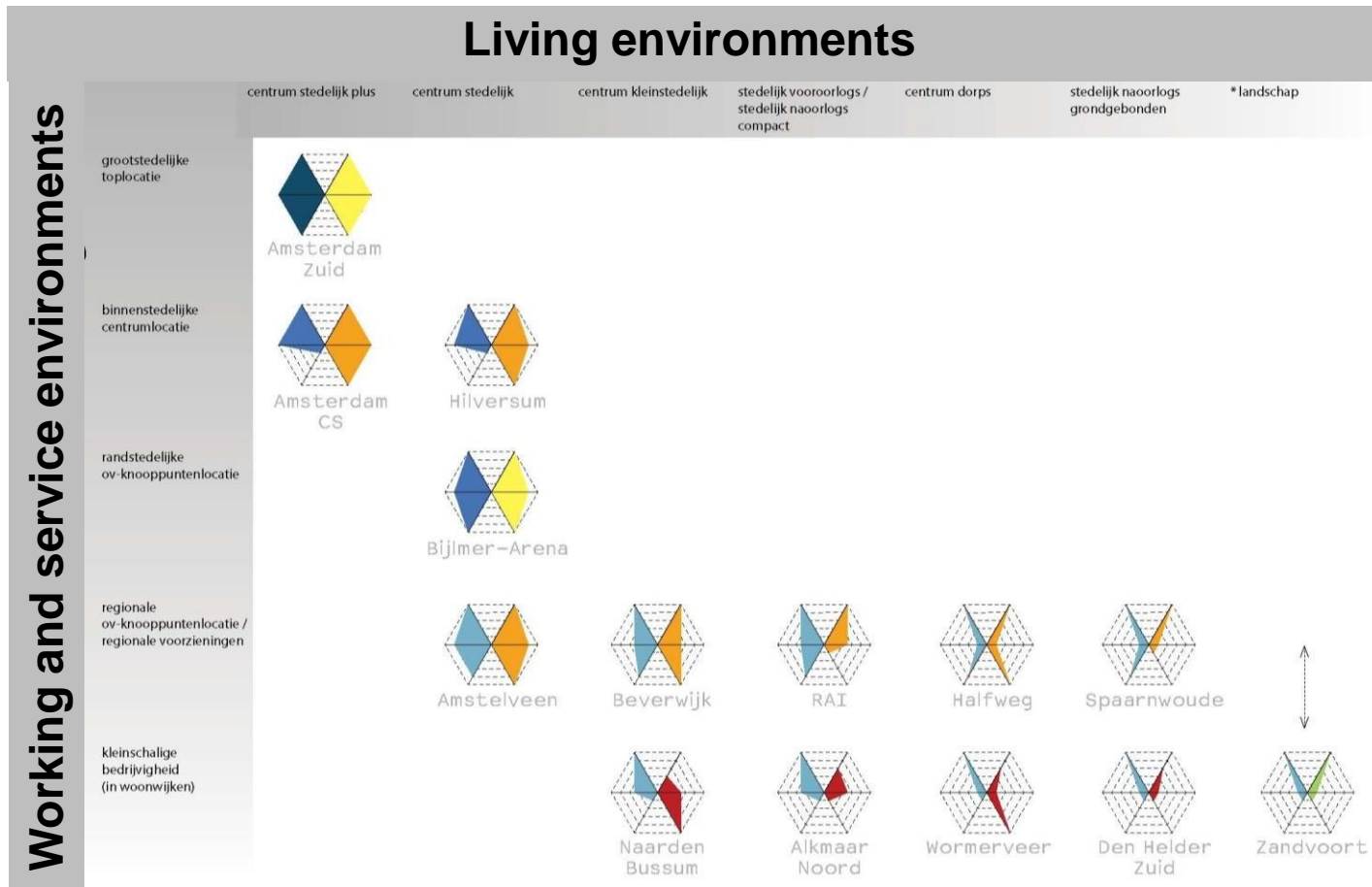
① Landschap/recreatiegebied is vrijwel direct vanaf het station toegankelijk en biedt ruimte recreatieve bestemming

② Sterke toeristische relatie tussen station en landschap

③ Station meestal gelegen op overgang tussen stedelijk gebied met woon-/werkfuncties en landschap

④ Voorzieningen gericht op recreatie (parkeervoorzieningen, fiets-/bootverhuur, informatievoorziening, café, pannenkoekenhuis etc.)

⑤ Bij goede autobereikbaarheid is ook combinatie met regionale voorzieningen bijvoorbeeld op gebied van leisure mogelijk

⑥ Bereikbaar per openbaar vervoer (eindintentional)

⑦ Zeer goed fietsnetwerk met fietsvoorzieningen

⑧ Heldere routeaanduiding

* Buitenpoort is altijd een extra toevoer aan van de andere milieus

MAKE SPACE!
Thinking and acting in corridors

The railway corridor, a suitable
level for coordinating transport
and land use

Corridors:

- Ring Amsterdam
- Amsterdam – Alkmaar– Heerhugowaard
- Den Helder–Alkmaar
- Amsterdam – Hoorn – Enkhuizen
- Amsterdam– Hilversum – Amersfoort
- Amsterdam–Utrecht
- Amsterdam–Leiden
- Amsterdam – Uitgeest/Zandvoort/Leiden
- Amsterdam–Almere–Lelystad

Tangenten:

- Zuidtangent
- Alkmaar – Hoorn

Provincie
Noord-Holland
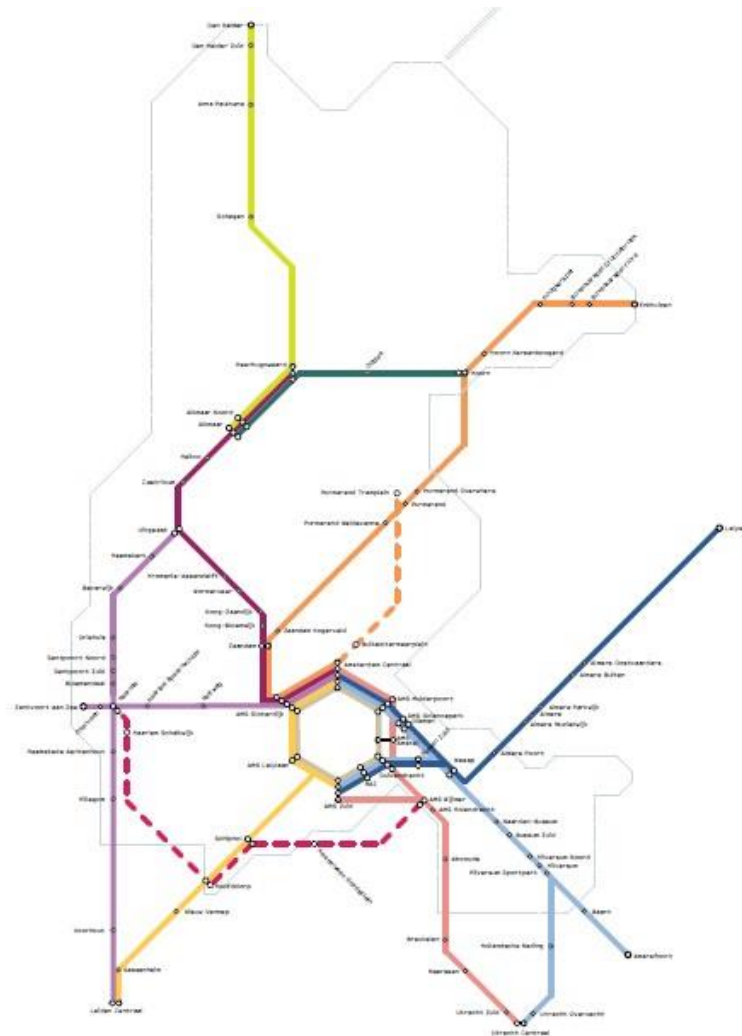
MAKE SPACE!

Provincial roles

EXPERT ROLE
focus on developing and sharing knowledge

- TOD monitor
- Serious game Sprintcity

- Design study for railway corridors
- TOD database
- Knowledge portal

GUIDING ROLE
focus op railway network

- Revising provincial policies

- Adopting the ten principles in the provincial ordinance

COORDINATING ROLE
focus on the railway corridor

- Establishing alliances between public and private parties

- Internal coordination of grants

- Conclusion of an intentional/implementation agreement

STIMULATING ROLE
focus on specific railway nodes

- Alliance talks

- Two pilots uitvoeringsregeling OV- knooppunten

- Grants for station areas

Provincie
Noord-Holland

Implementation program TOD

Goals of the implementation program TOD
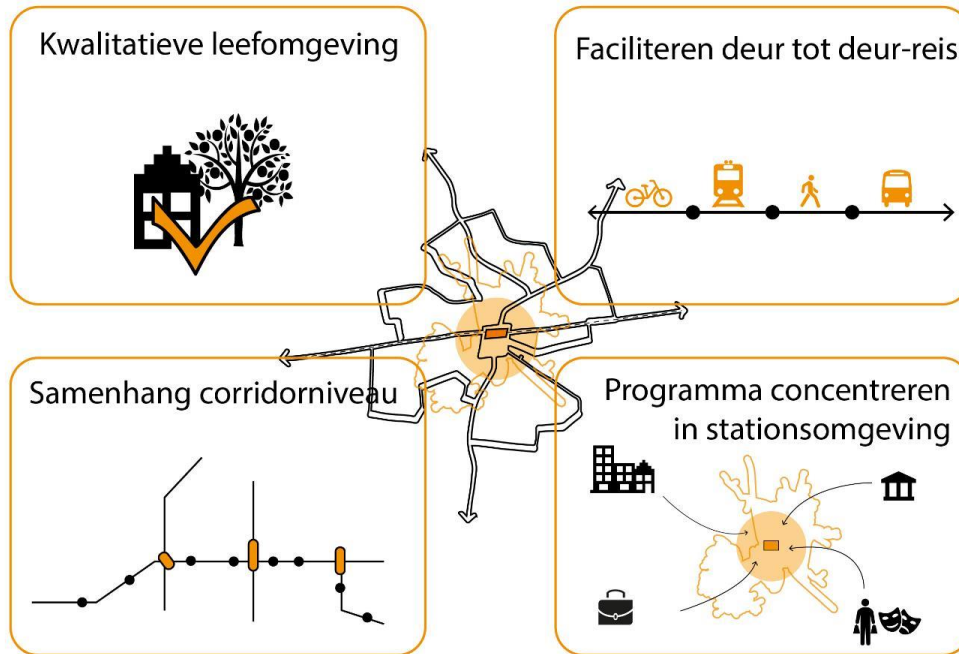
1. Strengthen the intrinsic value of nodes

Fitting the character of the node

Increasing synergy between nodes

Provincie
Noord-Holland

2. Optimize the transfer between modes of transport

Good public transport
Short travel times
Fast and safe connections from and to the station

Provincie
Noord-Holland

3. Better utilization of the existing space around stations

- At least 50% of all new dwellings should be built within 1200 meters of a public transport node

Provincie
Noord-Holland

3. Better utilization of the existing space around stations

Legenda
- Spoorlijn
- Rijksweg
- Provinciale weg
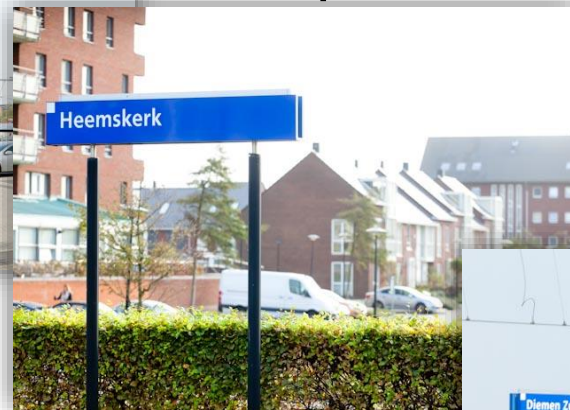
Woningbouwplannen
- (2001 natie aantal woningen)
- Harde planstatus
- Zachte planstatus

❑ 100.000 dwellings planned < 1200 meters
❑ 160.000 dwelling planned < 10 minutes cycling
❑ 250.000 dwellings planned within province of Noord-Holland

But the majority of these plans needs yet to be approved by local governments.

Provincie
Noord-Holland
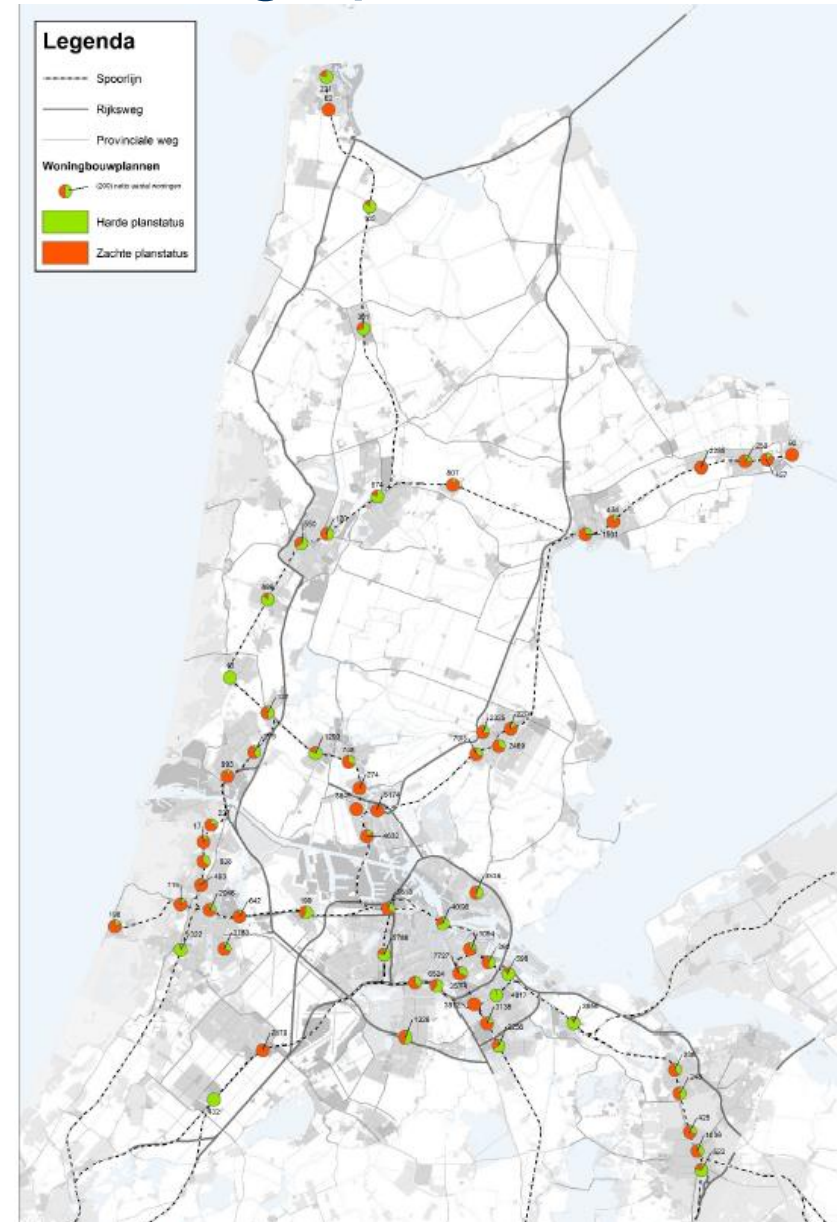
4. Improve the surroundings of a node into an attractive place in the city

Provincie Noord-Holland

Focus on 300 meters, 1200 meters and 10 minutes cycling
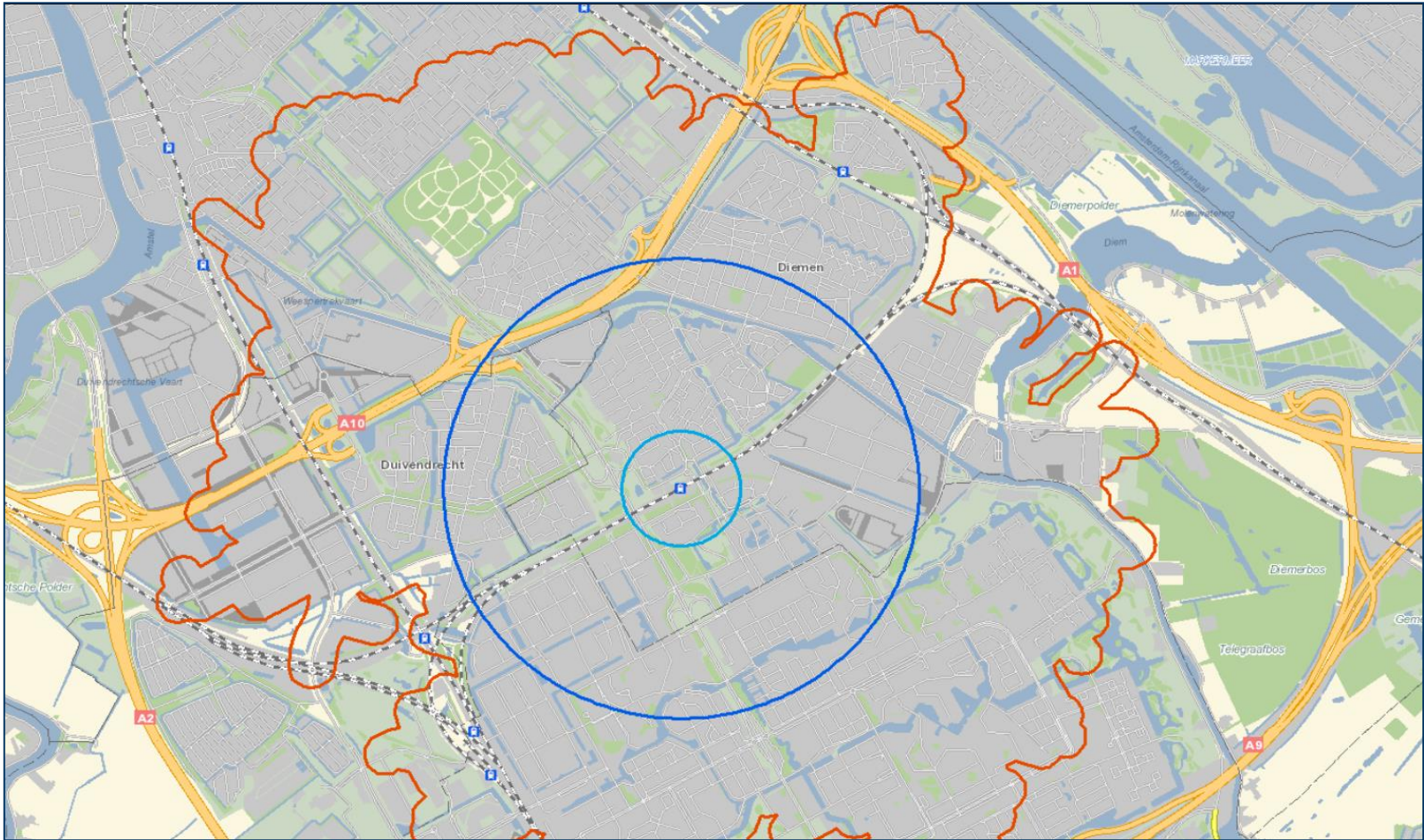
Thinking and acting in railway corridors

Provincie
Noord-Holland

Corridor approach

Coordination of three corridors:
- Zaancorridor
- Kennemerlijn
- Schipholcorridor

Individual nodes
- Tailor-made approach
- Overarching issues

Provincie Noord-Holland
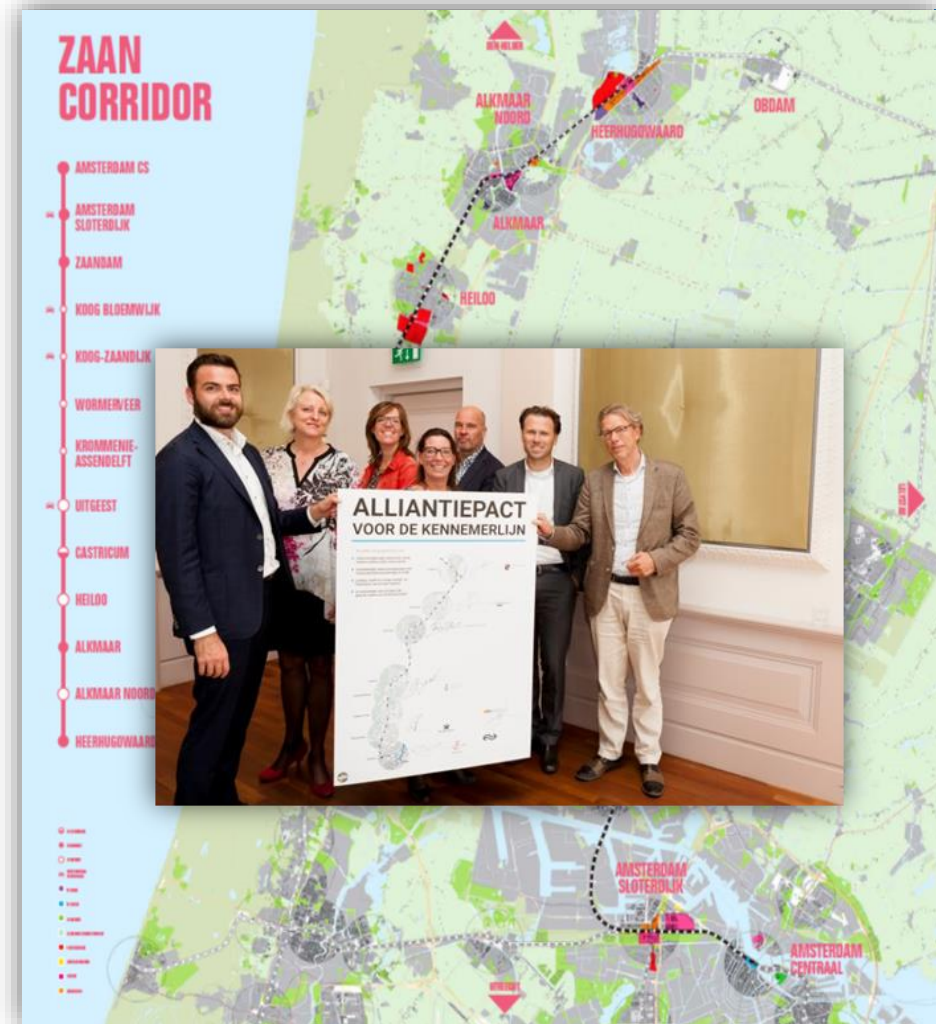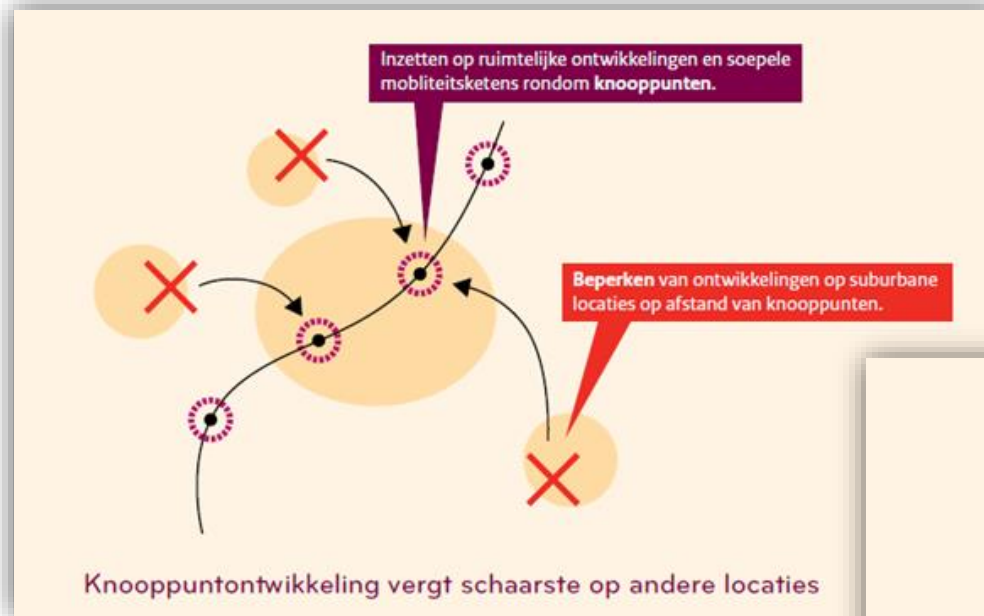
Corridor approach

Corridor approach
Zaancorridor

Why the Zaancorridor?

- PHS=National program to increase frequency of the trains
- Willingness municipalities
- Available land for development
- Monofunctional land use

Provincie
Noord-Holland
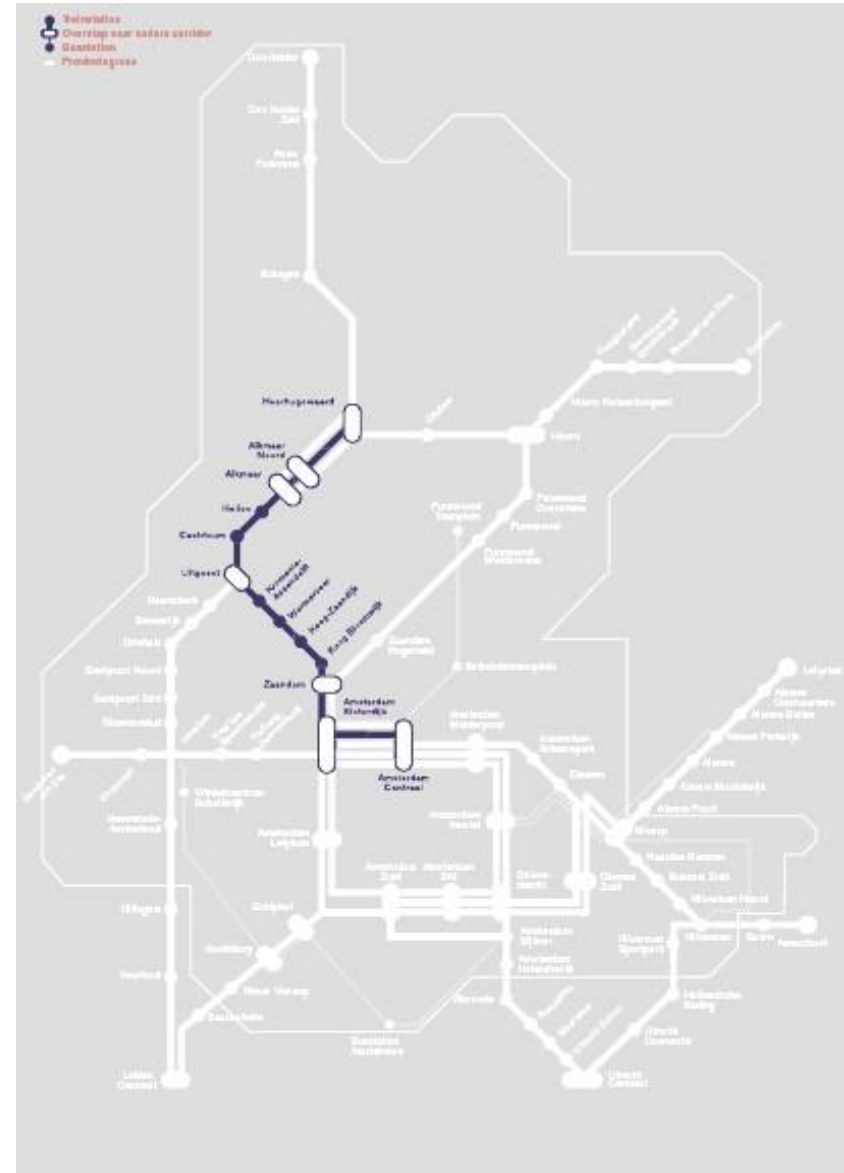
Corridor approach
Area strategy Zaancorridor
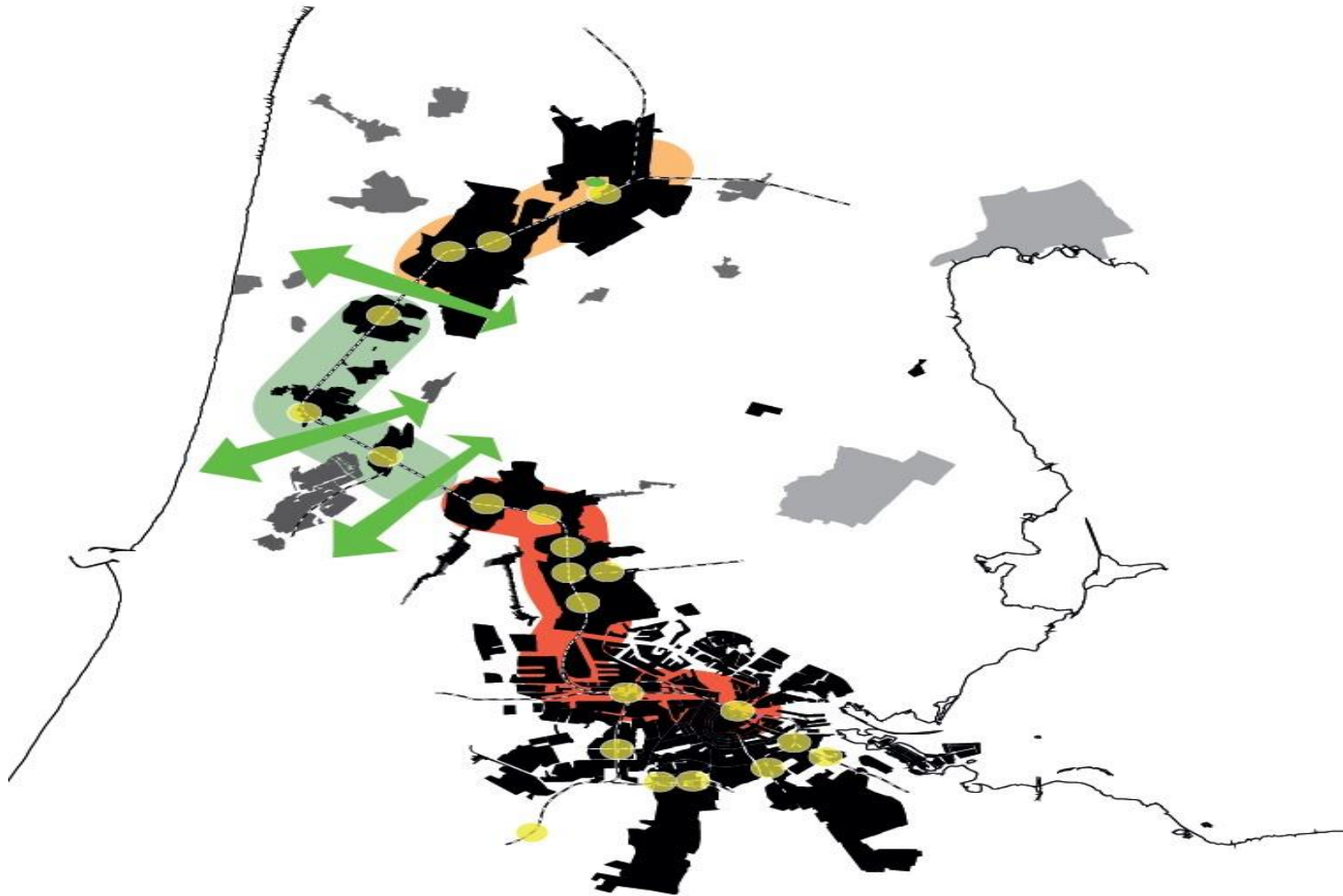
Corridor approach
Kennemerlijn

Why the Kennemerlijn?

- Decrease of frequency of railway line due to declining passenger numbers
- Sense of urgency local municipalities

Provincie
Noord-Holland
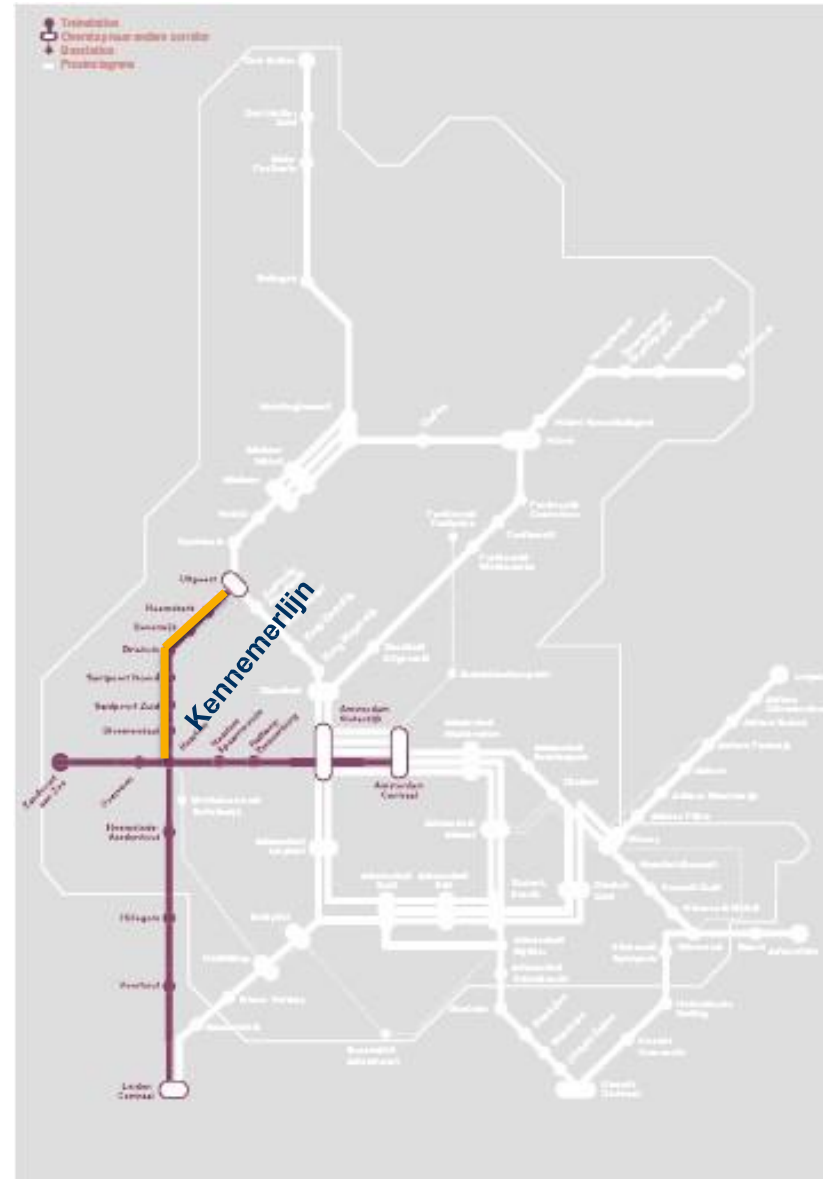
Corridor approach
Regional development strategy Kennemerlijn
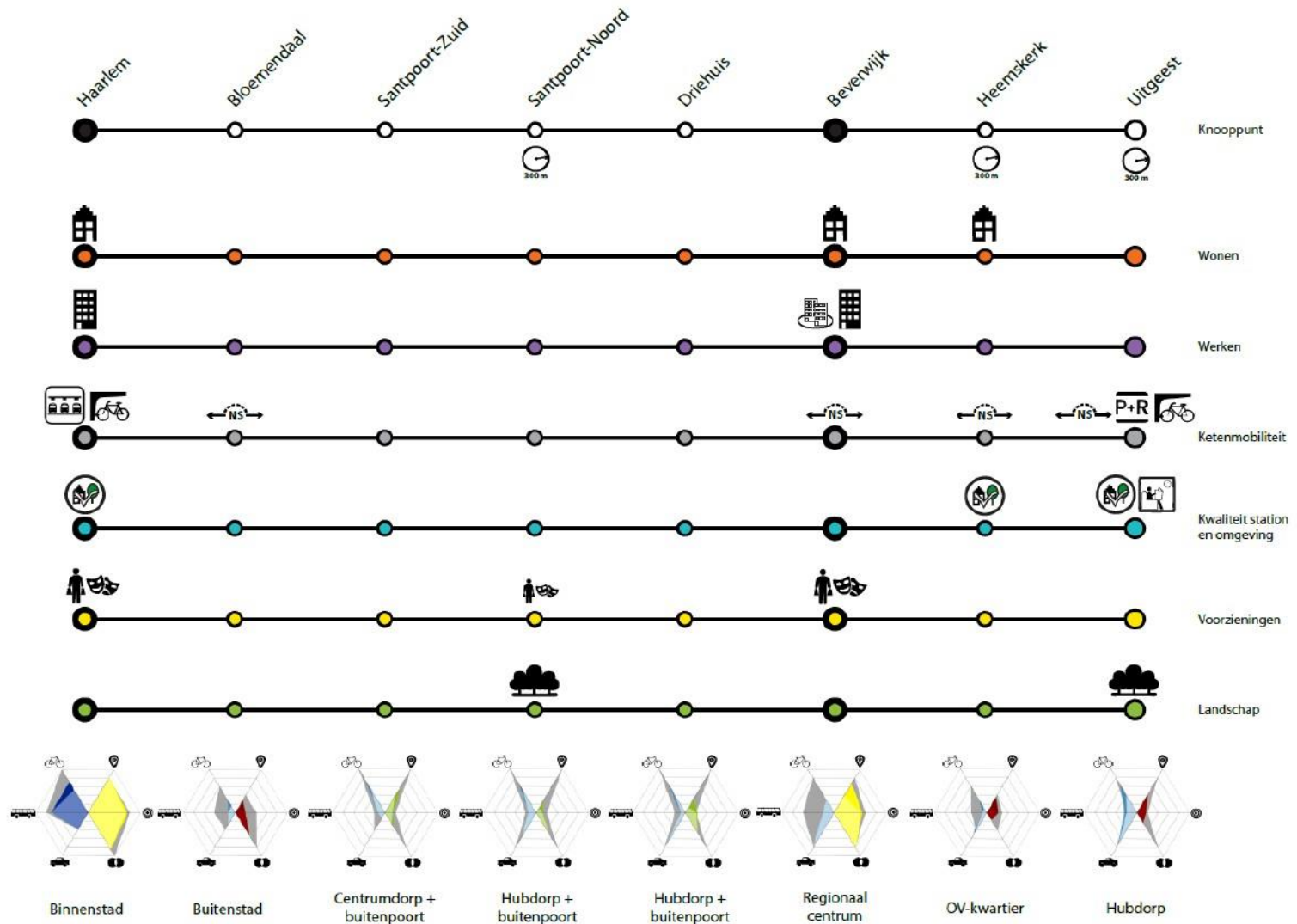
Corridor approach
Schipholcorridor

Why the Schipholcorridor?

- PHS=National program to increase frequency of the trains
- MRA Action Agenda
- Part of 'International entrance to the Netherlands'

Provincie
Noord-Holland

Corridor approach
Challenges on different levels of scale
Schipholcorridor
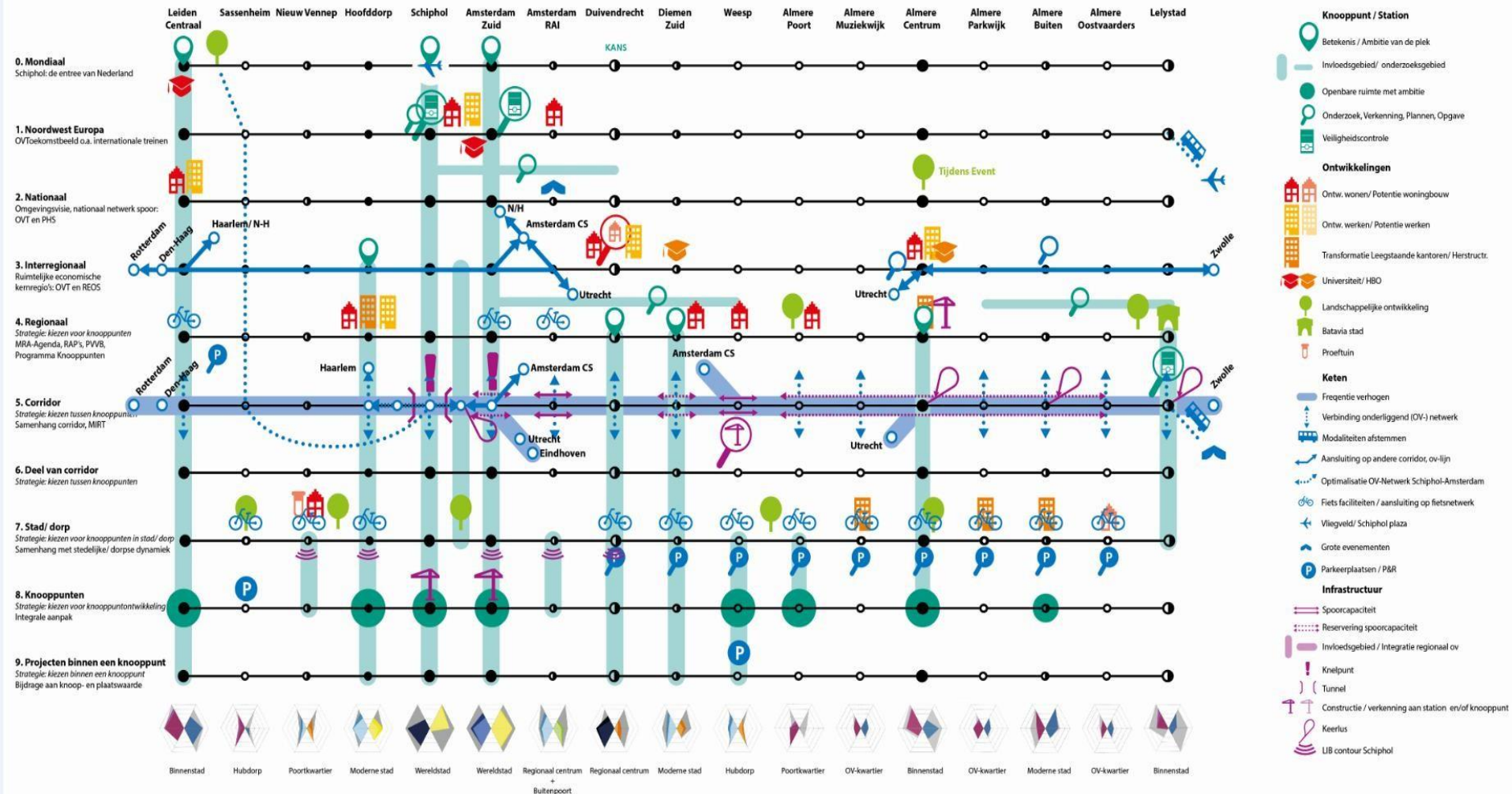
Corridor approach
Hoornse lijn

Why the Hoornse lijn?

- MIRT-verkenning Amsterdam-Hoorn

- Part of so-called 'Sleutelgebieden'(key areas) where the construction of new dwellings should be accelerated;

- Inefficient use of the railway line;

- Willingness of municipalities along the line

Provincie
Noord-Holland

Corridor approach
Hoornse lijn

Inefficient use of railway line
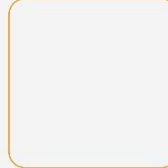
The number of passengers travelling by intercity train in the direction is 10 times higher than the number of passengers travelling in the direction of Hoorn.

Figuur 13: Vervoersvraag Intercity in de ochtendspits
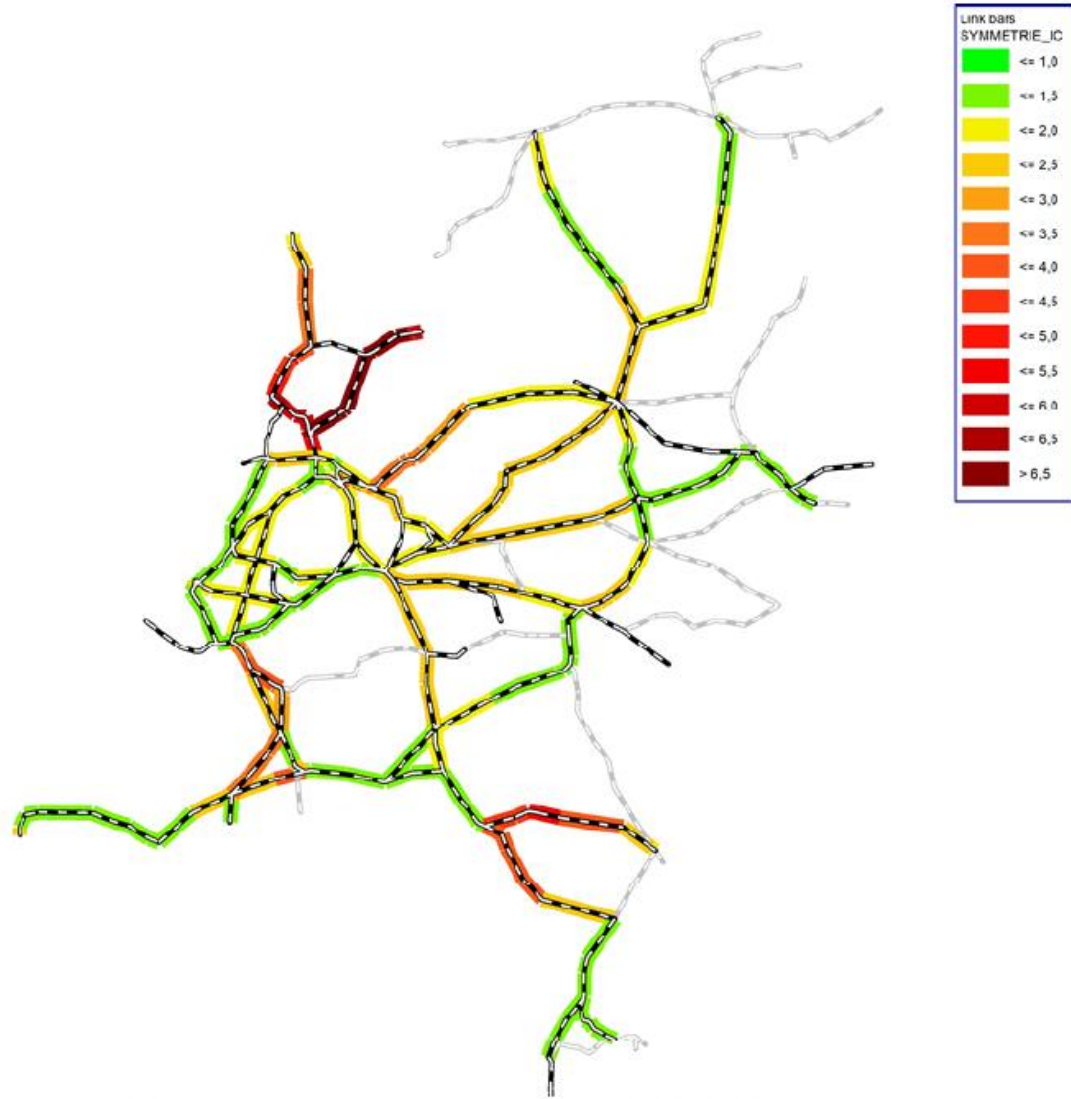
Knowledge portal Public transport nodes

Provincie
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Kennisportaal OV-knooppunten

https://kennisportaalovk.noord-holland.nl

Kennisportaal OV-knooppunten

https://kennisportaalovk.noord-holland.nl

Development of hubs

Case of Haarlem

Provincie
Noord-Holland

Haarlem

*Aerial view of station and station square*

Haarlem

Challenges

- 20% growth of bus passengers in past couple of years;
- 2% annual growth of public transport passengers expected until the year 2040;
- Current bus station has reached its maximum capacity and is not able to facilitate the expected future growth
- Large number of buses going through the city center (1600 buses on a daily basis)
- Growing opposition from inner city residents against large number of buses

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Noord-Holland
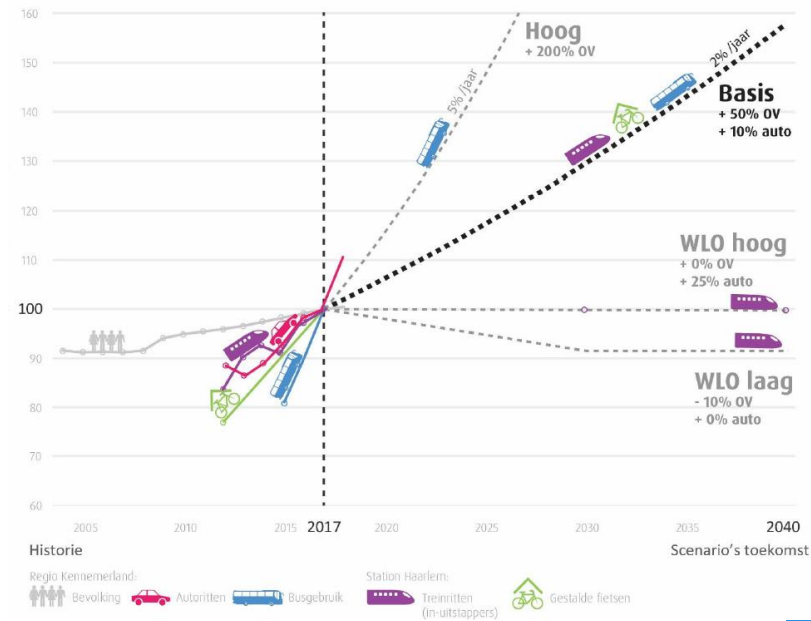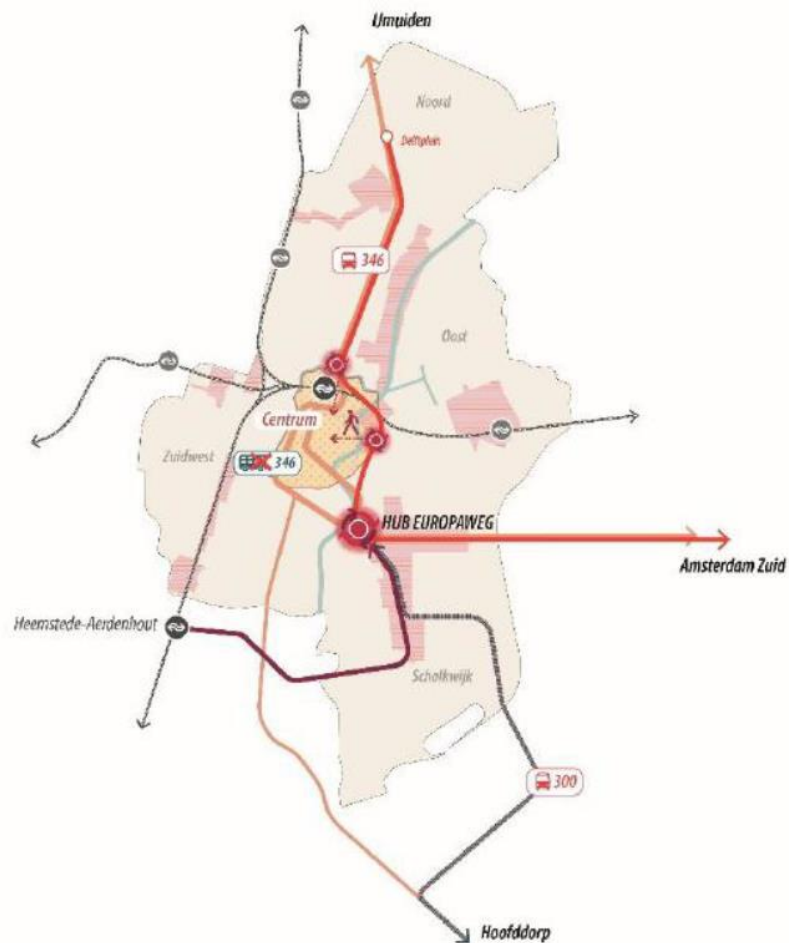
Haarlem

Haarlem

Potential location of new hub