



Rijkswaterstaat
*Ministry of Infrastructure
and Water Management*



City of Rotterdam

Sustainable urban accessibility in travel chains

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POLIS
Partnership for
Innovative Local
Authorities Solutions
regio arnhem
rijmegen

**Annual
Conference
2020**

VIRTUAL EVENT | 30 NOVEMBER-3 DECEMBER 2020



Preface

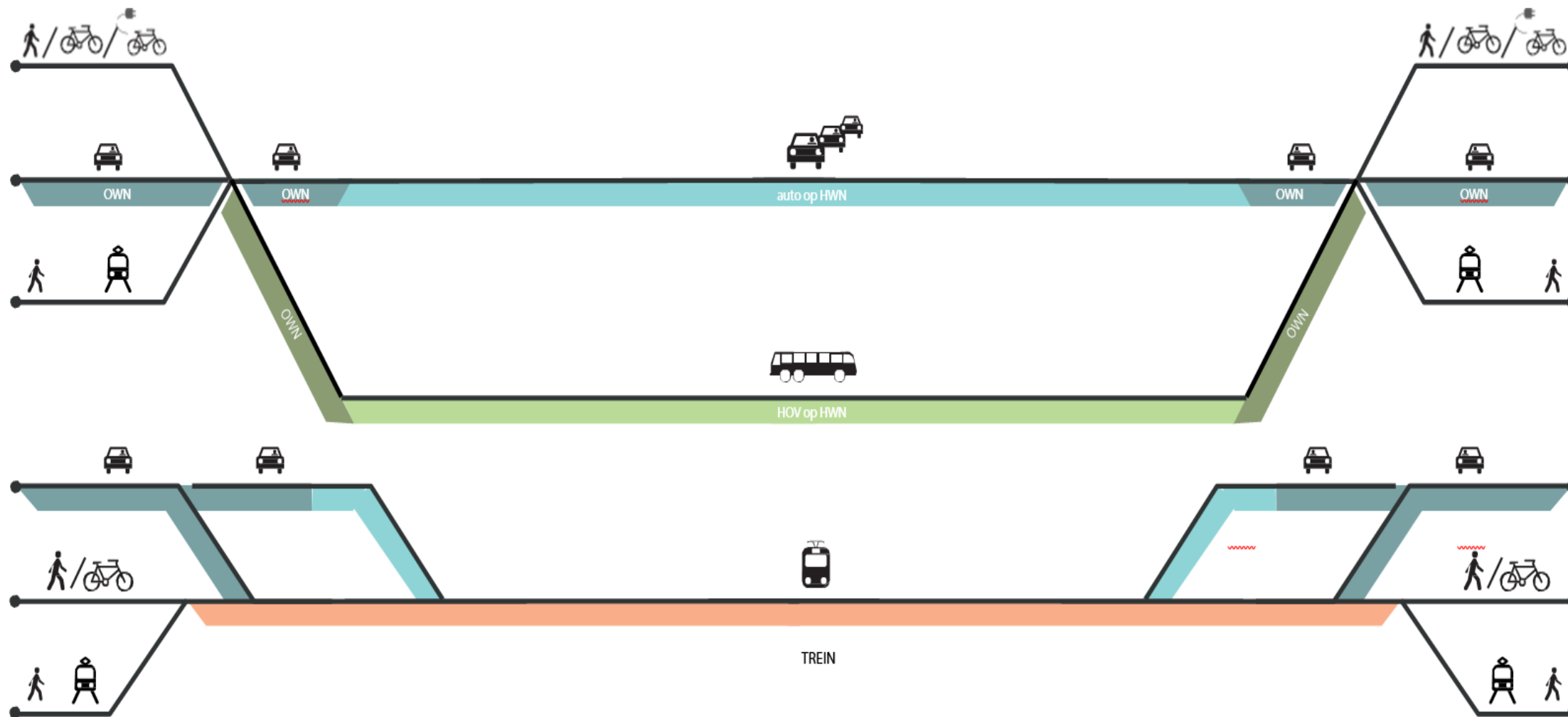
- The mobilitysystem is changing from focus on seperate modalities to focus on an integral system.
- Drivers: less room for cars in cities, more vehicle-sharing
- ICT helps
- Leading to more travel chains, that need hubs.



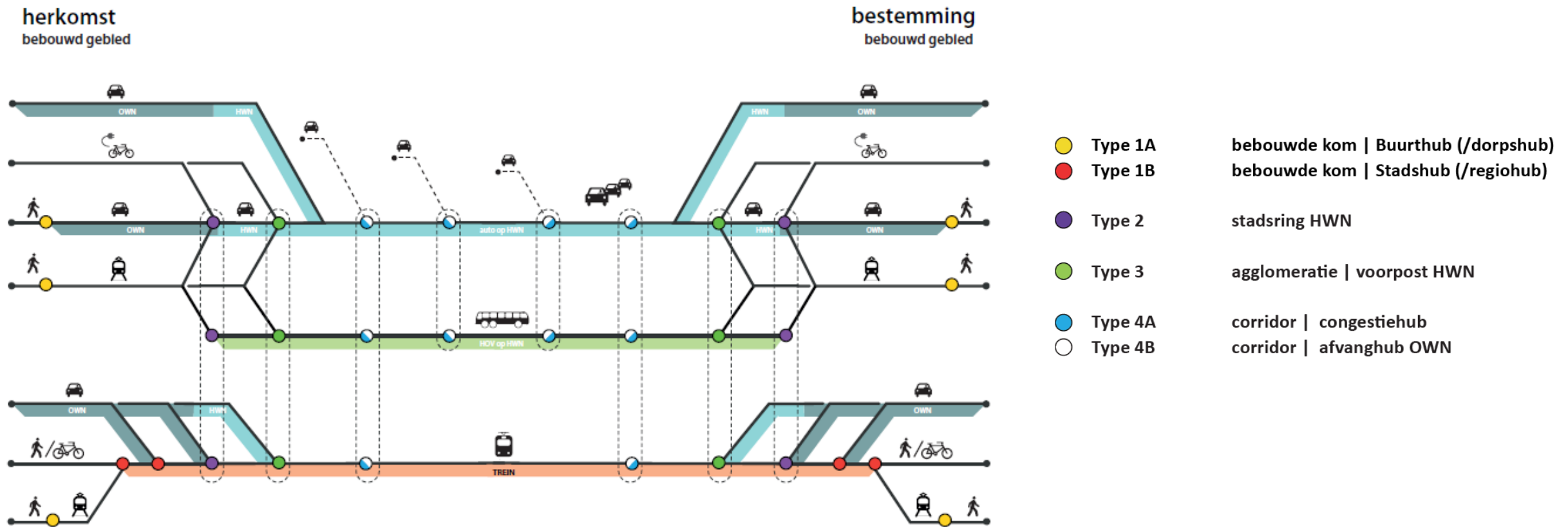
Multi-modal hubs study RWS

- RWS performed a study regarding the role of the Highwaysystem in the mobilitysystem of the future.
- What types of hubs can be distinguished?
- How do relate to the Highway-system?







Possible travel chains on a regional level

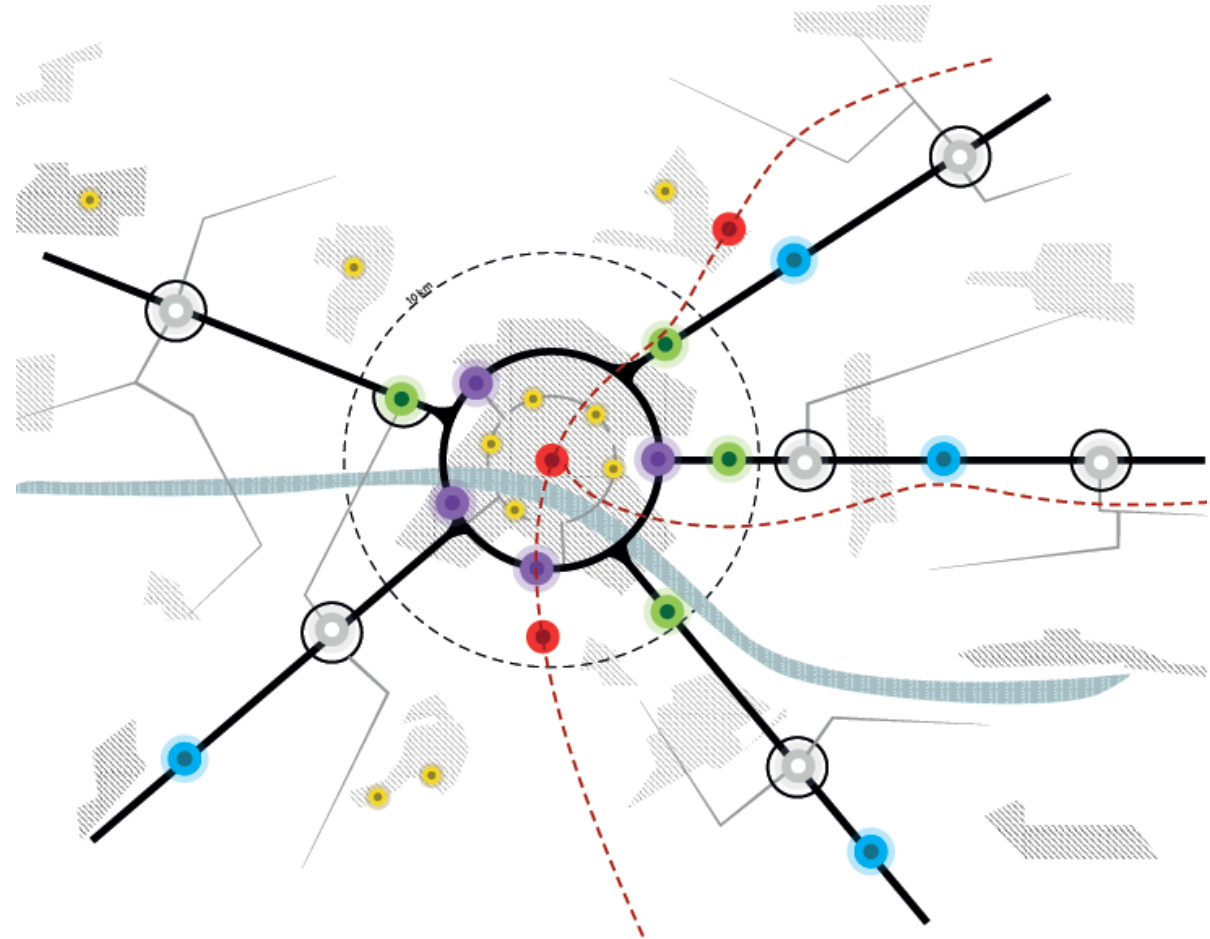


Possible travel chains with hubs

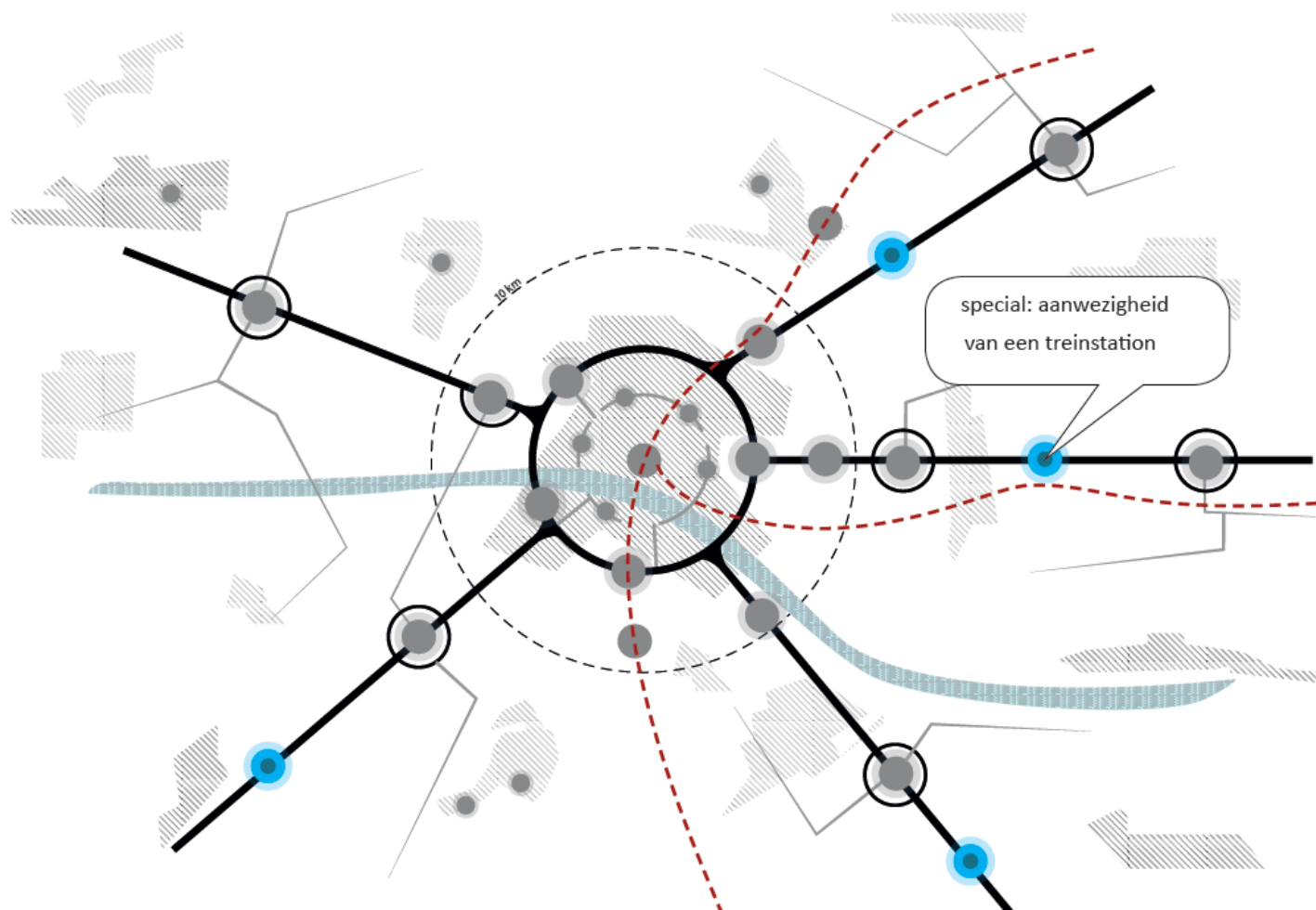


Hub typology

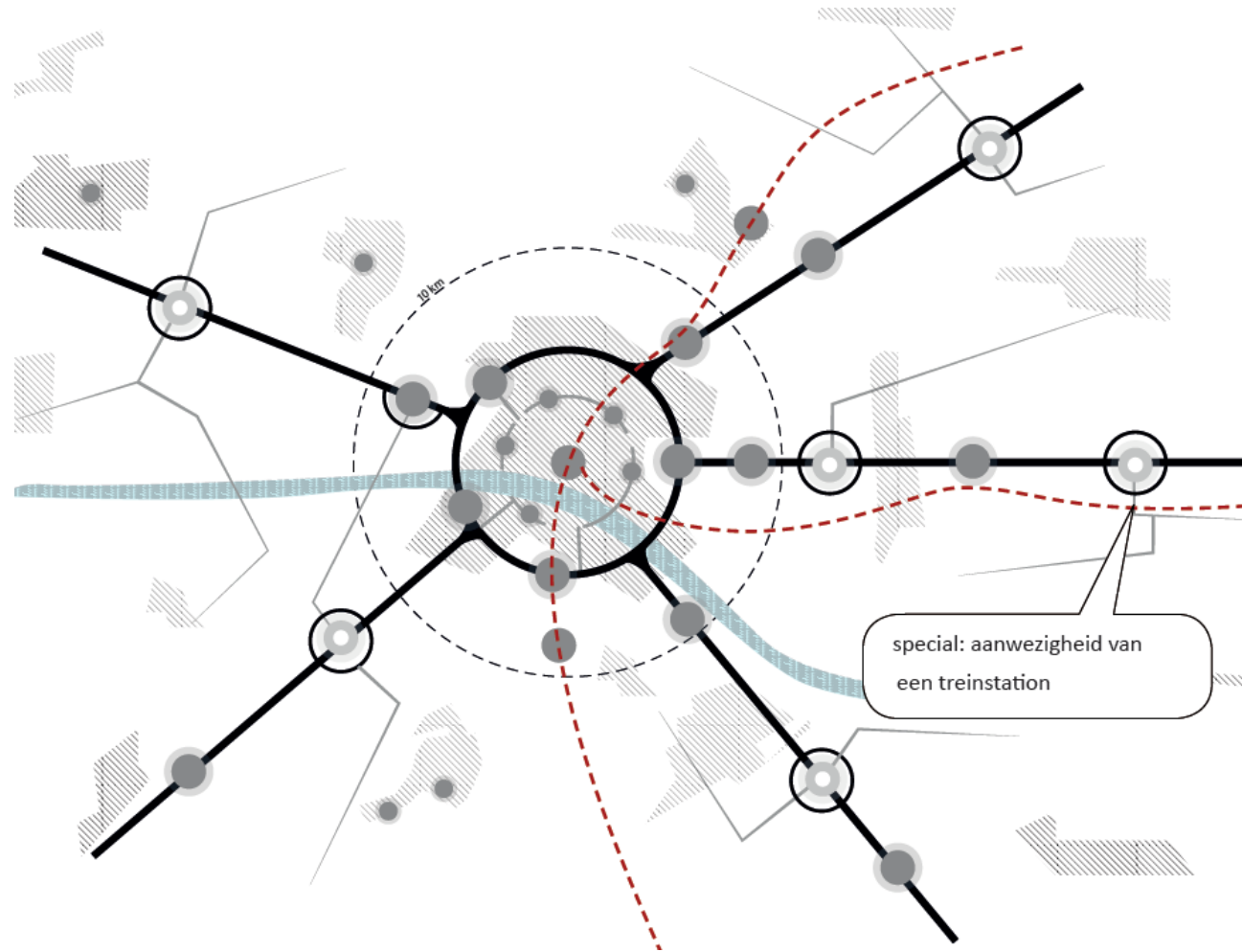
	Type 1A	bebouwde kom Buurthub (/dorpshub)
	Type 1B	bebouwde kom Stadshub (/regionhub)
	Type 2	stadsring HWN
	Type 3	agglomeratie voorpost HWN
	Type 4A	corridor congestiehub
	Type 4B	corridor afvanghub OVN



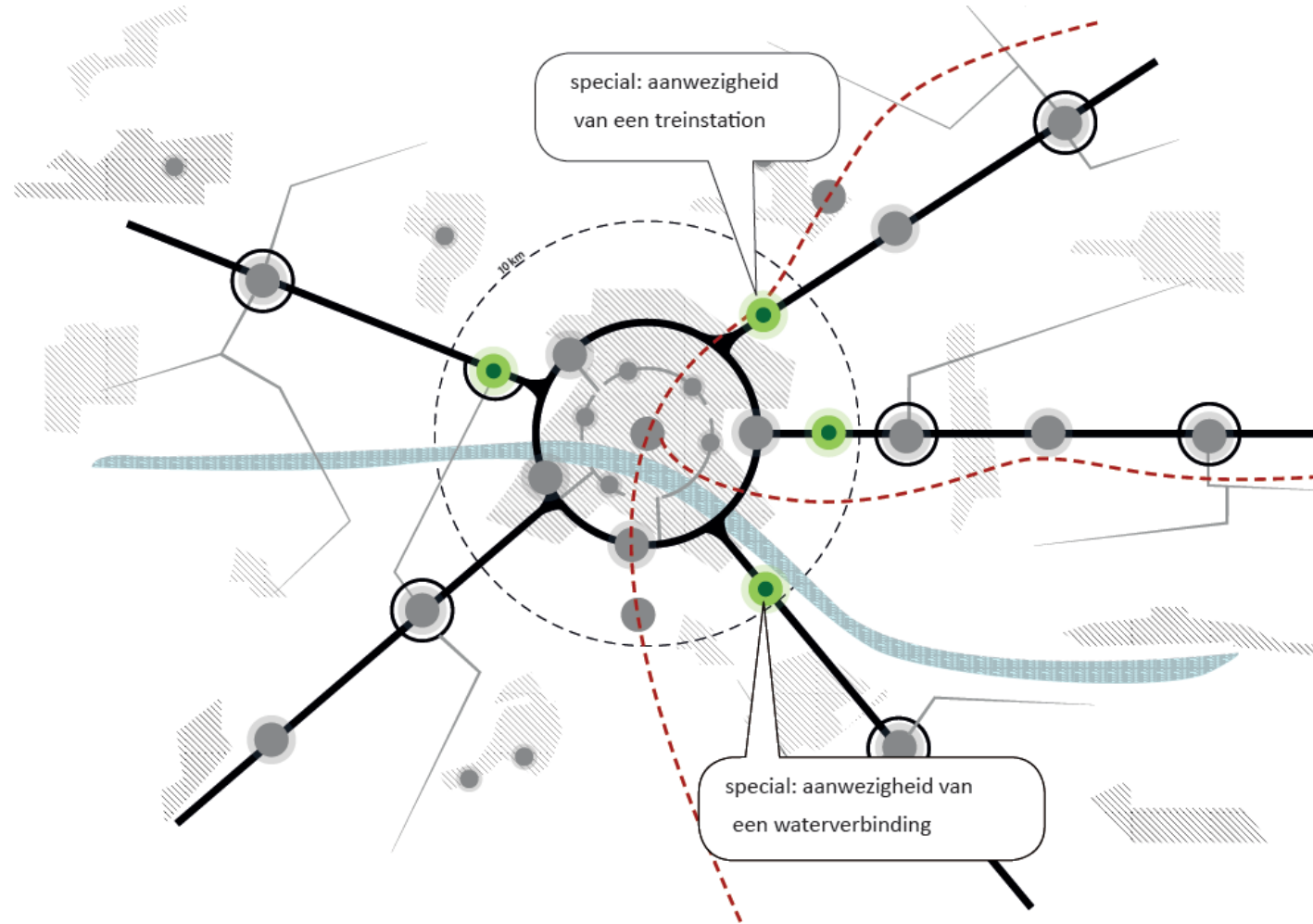
Type 4A: Congestion hub



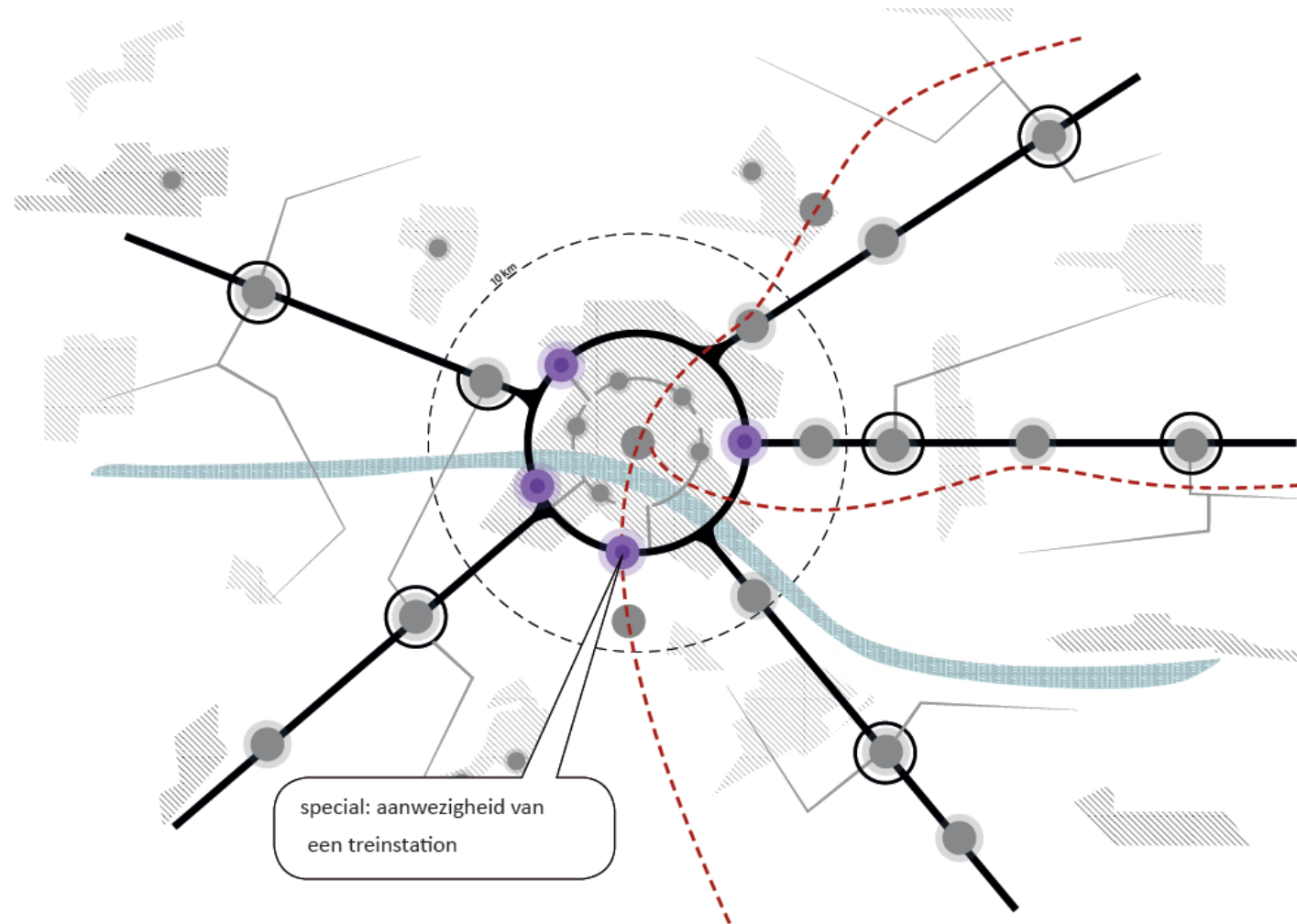
Type 4B: Regional hub



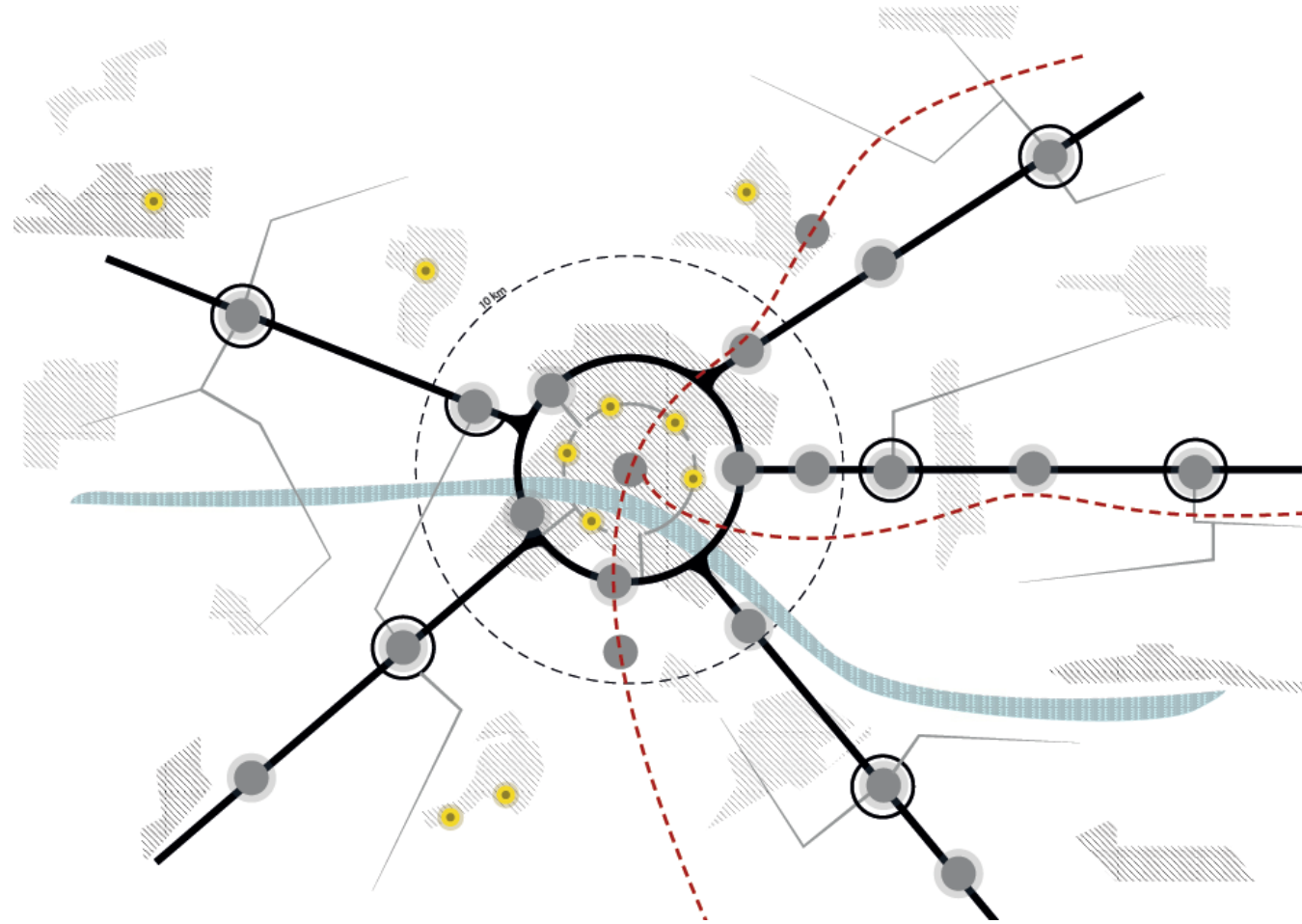
Type 3: Agglomeration hub



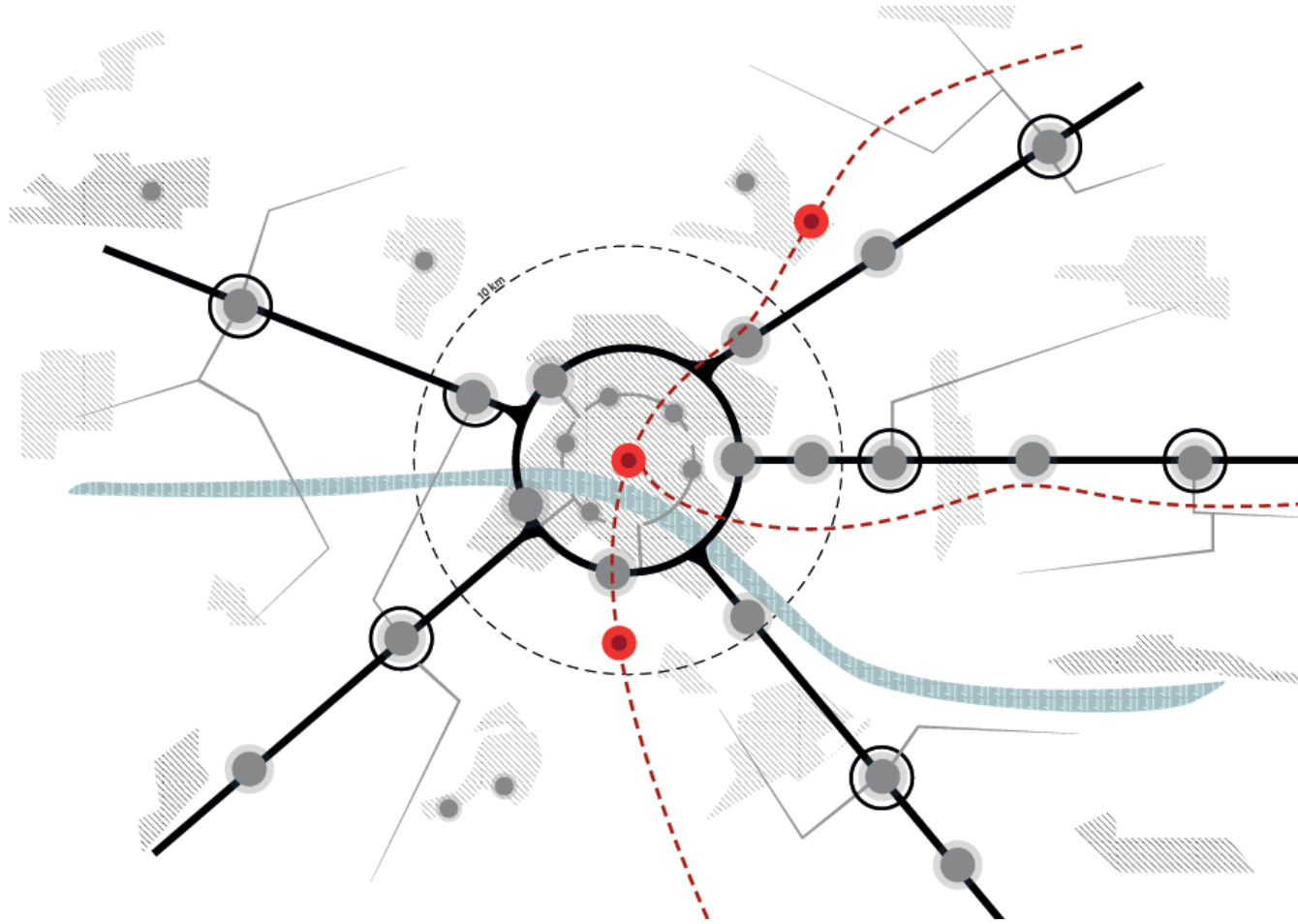
Type 2: Ringroad hub



Type 1A: Cityhub



Type 1B: Cityhub+





Now: cases

- Provinces and municipalities don't wait
- Deepening some Type 3 and 4 – cases
 - Hubs on rest-areas
 - Breukelen-Hub
- Examples from type 1-hubs in Rotterdam

Hub development in Rotterdam (examples type 1a)



Merwe4Havens area development

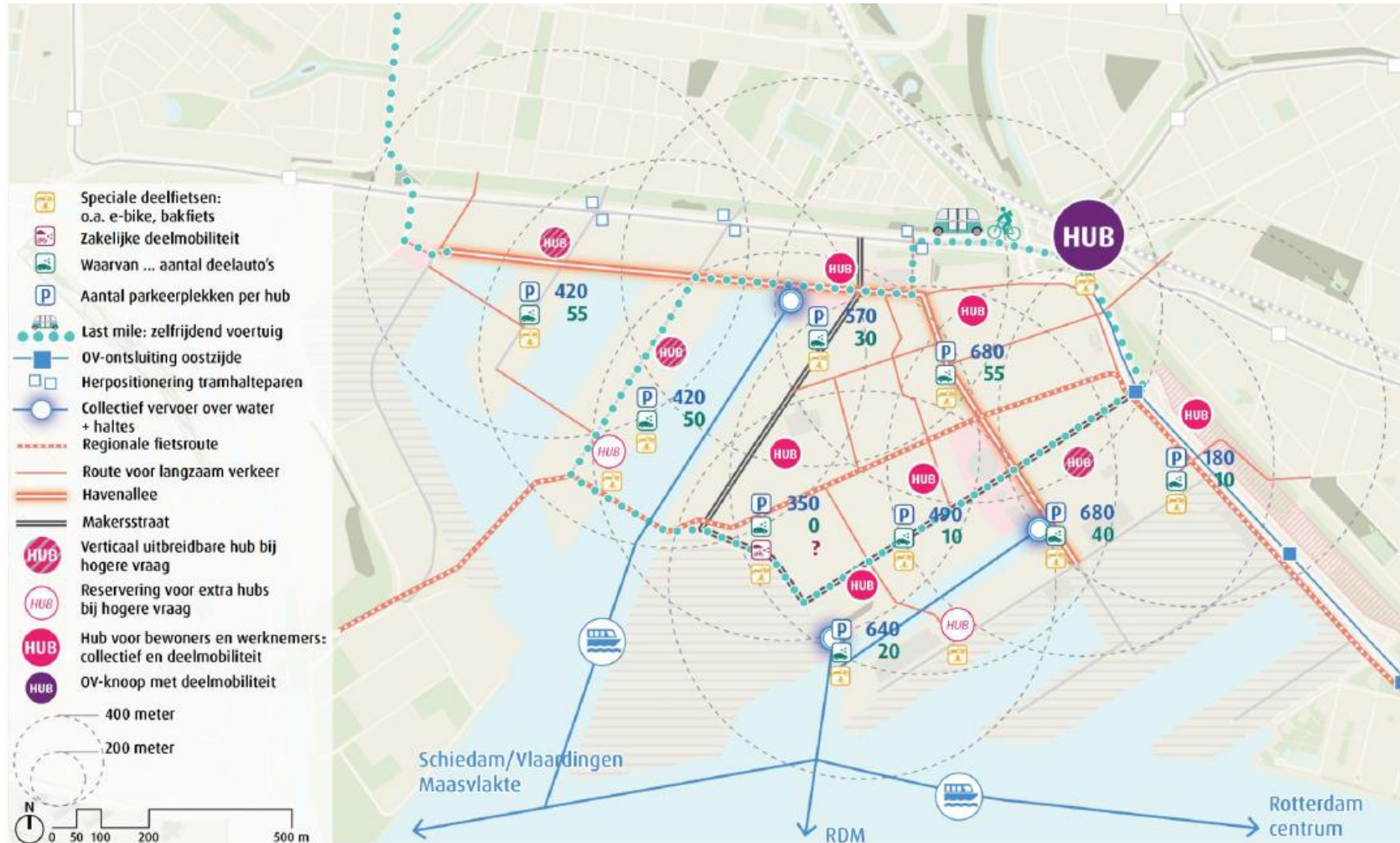


Mobility Challenge Hoogkwartier

Mobility strategy – Merwe4Havens



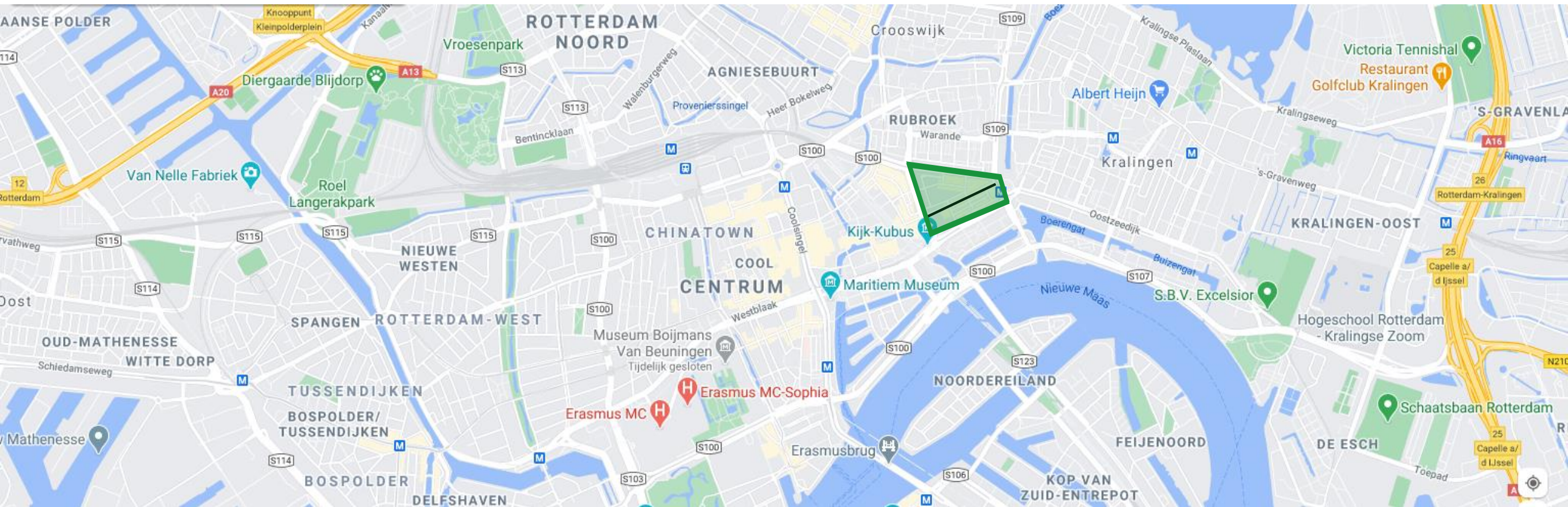
Mobility strategy – Merwe4Havens (M4H)



Mobility strategy – Merwe4Havens

Aspect	1. Medium ambition with smaller hubs	2. Medium ambition with larger hubs	3. High ambition with smaller hubs
First/Last Mile facilities	Shared bikes to Marconiplein and Schiedam Central and to the hubs	Shared bikes to Marconiplein and Schiedam Central and to the hubs	+ small busses through the area and to Marconiplein and P+R
Amount shared mobility facilities	265 shared cars in hubs	265 shared cars in hubs	+ additional shared facilities in hubs
Behaviour (through design)	Stimulate cycling and use of public transport	Stimulate cycling and use of public transport	+ MaaS
Max. distance to hub	Max. 200m to destination	Max. 400m to destination	Max. 400m to destination
Parking spots	Ca. 6.700	Ca. 6.700	Ca. 4.400

Mobility Challenge Hoogkwartier



Mobility Challenge Hoogkwartier



Shared mobility services

Change mobility behavior and liveability



One way street Hoogstraat

Road safety

Mobility Challenge Hoogkwartier

- Sept – Nov 2019
- 47 participants
- Link between mobility and (green) public space
– change of mobility behaviour
- Hub with electric cars and (cargo) bikes,
bikes + use of public transport
- Parking lots decorated as green public areas - liveability



Mobility Challenge Hoogkwartier

Results

- Use rate 20-35%, especially to areas not easily accessible by public transport
- Increased thinking about mobility in relation to liveability aspects
- Neighbourhood want to preserve the green public areas

Mobility Challenge Hoogkwartier

Conclusions and recommendations

- It made people more open to change in travel behavior, but use **story telling**
- **Neighborhood-oriented approach** important;
- **Visible changes** improve involvement;
- Ideal **duration of a year**, 2 months seems to short for behavioral change;
- Need for shared mobility service is dependent on **accessibility of the area**;
- Hub structure is **context dependent** (combination with other functions and or exchange possibilities with other hubs)