



Supporting transit and cycling in small and medium sized cities in the Netherlands

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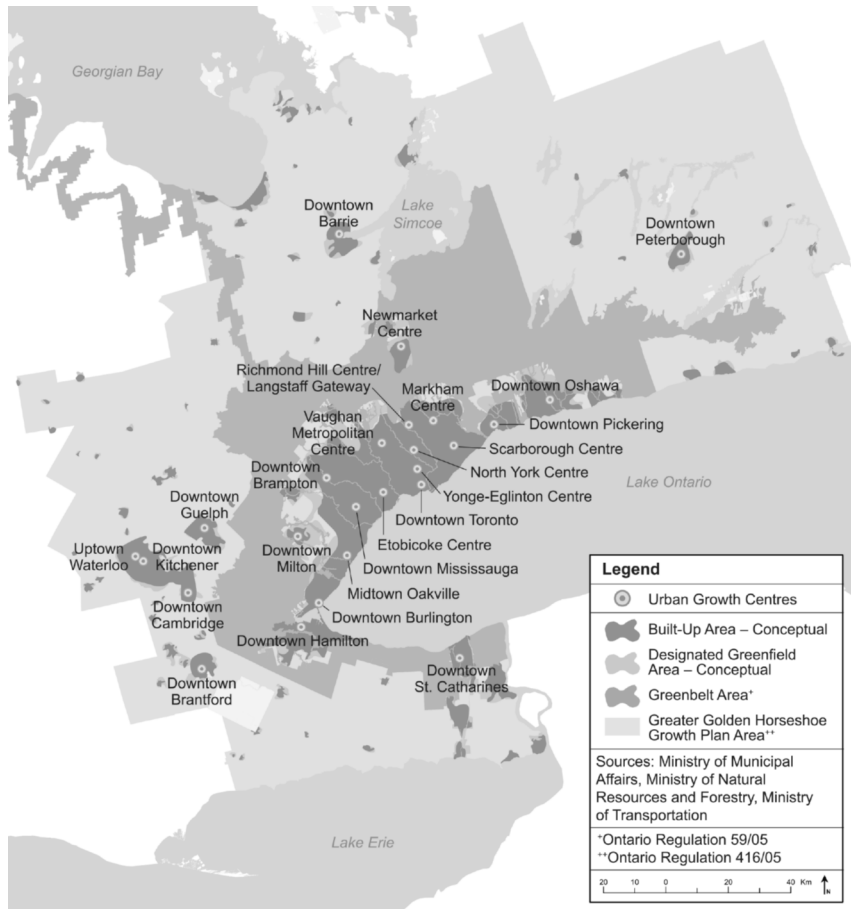
February 19th



Why do Dutch people cycle so much?

Planning law: No big box retail for daily shopping





Greater Golden Horseshoe
33.500 km² - 9.2 million inh.



Netherlands
33.900 km² - 17.2 million inh.

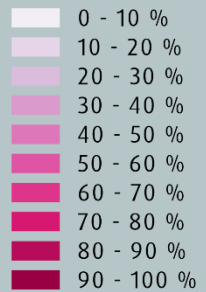


Source: Canada TTS 2016, Netherlands - CBS 2016

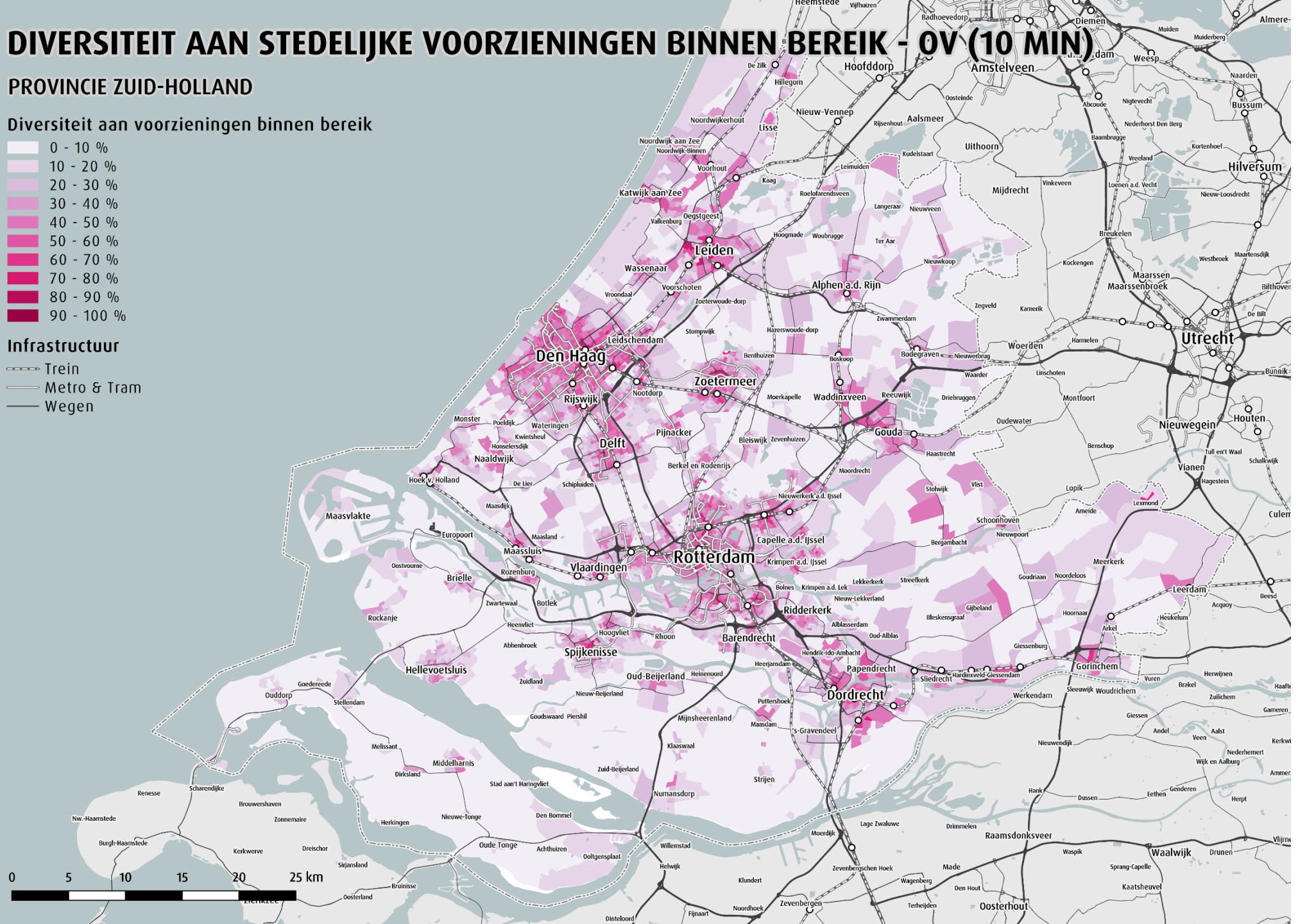
DIVERSITEIT AAN STEDELIJKE VOORZIENINGEN BINNEN BEREIK - OV (10 MIN)

PROVINCIE ZUID-HOLLAND

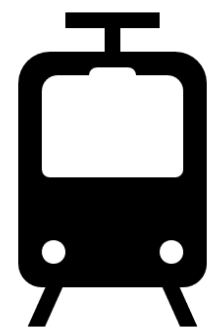
Diversiteit aan voorzieningen binnen bereik



Infrastructuur
- - - - - Trein
— Metro & Tram
— Wegen



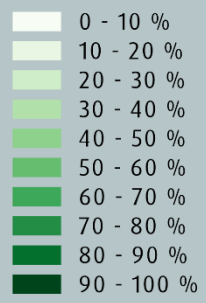
Access to amenities



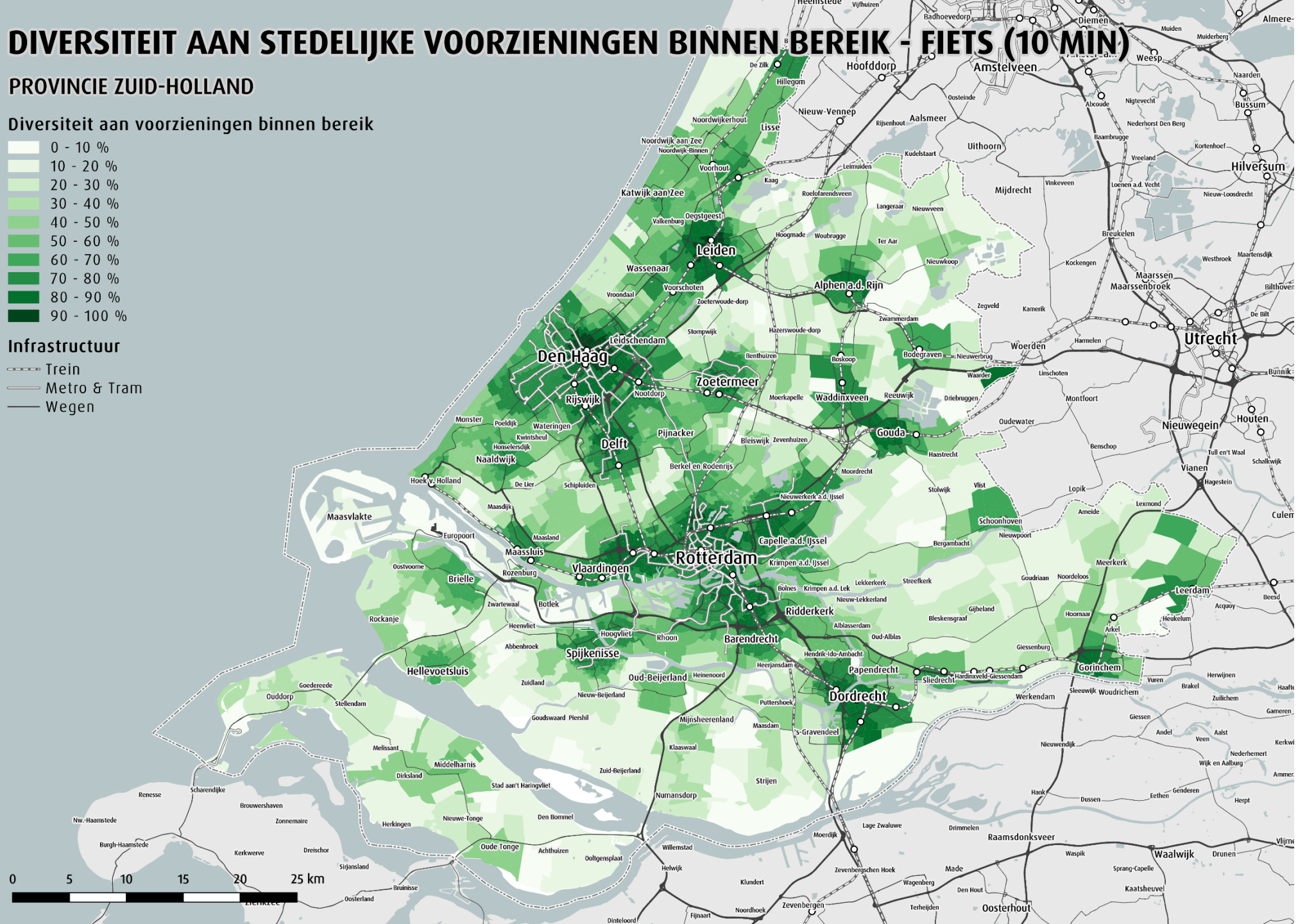
DIVERSITEIT AAN STEDELIJKE VOORZIENINGEN BINNEN BEREIK - FIETS (10 MIN)

PROVINCIE ZUID-HOLLAND

Diversiteit aan voorzieningen binnen bereik



Infrastructuur



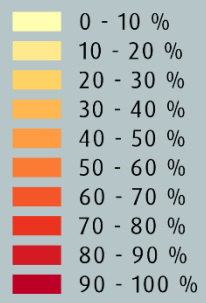
Access to amenities



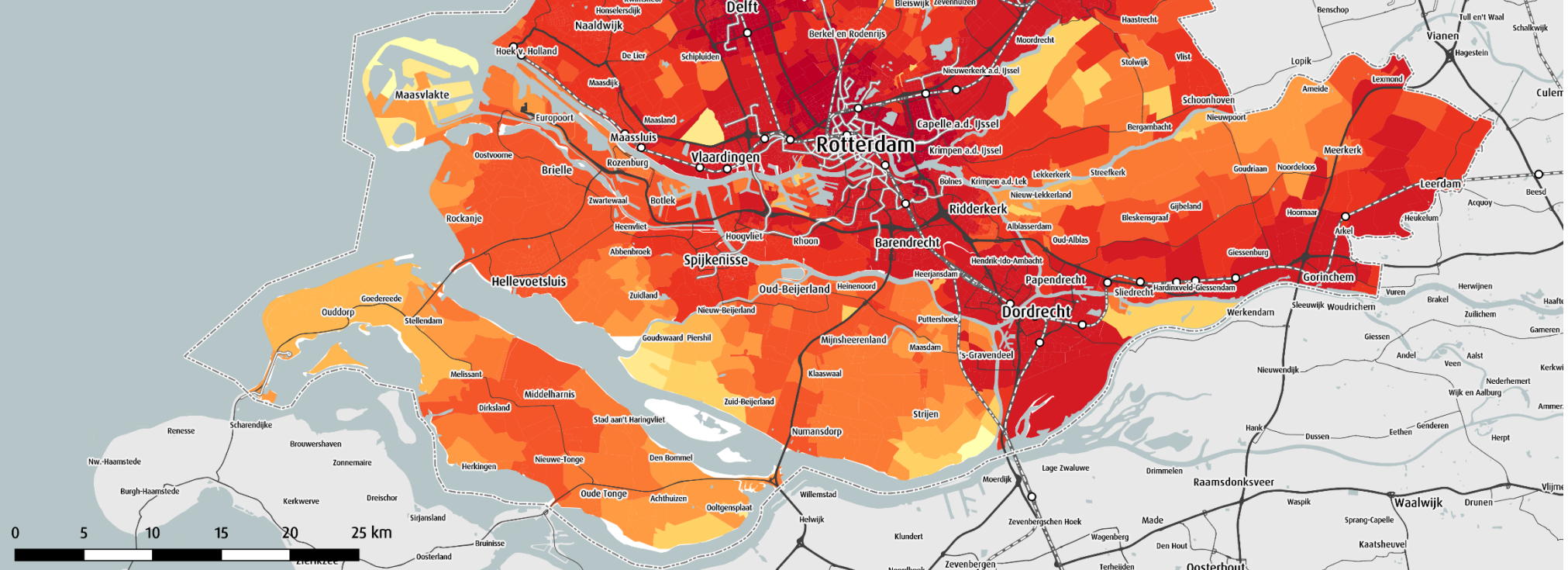
DIVERSITEIT AAN STEDELIJKE VOORZIENINGEN BINNEN BEREIK - AUTO (10 MIN)

PROVINCIE ZUID-HOLLAND

Diversiteit aan voorzieningen binnen bereik



Infrastructuur



Access to amenities

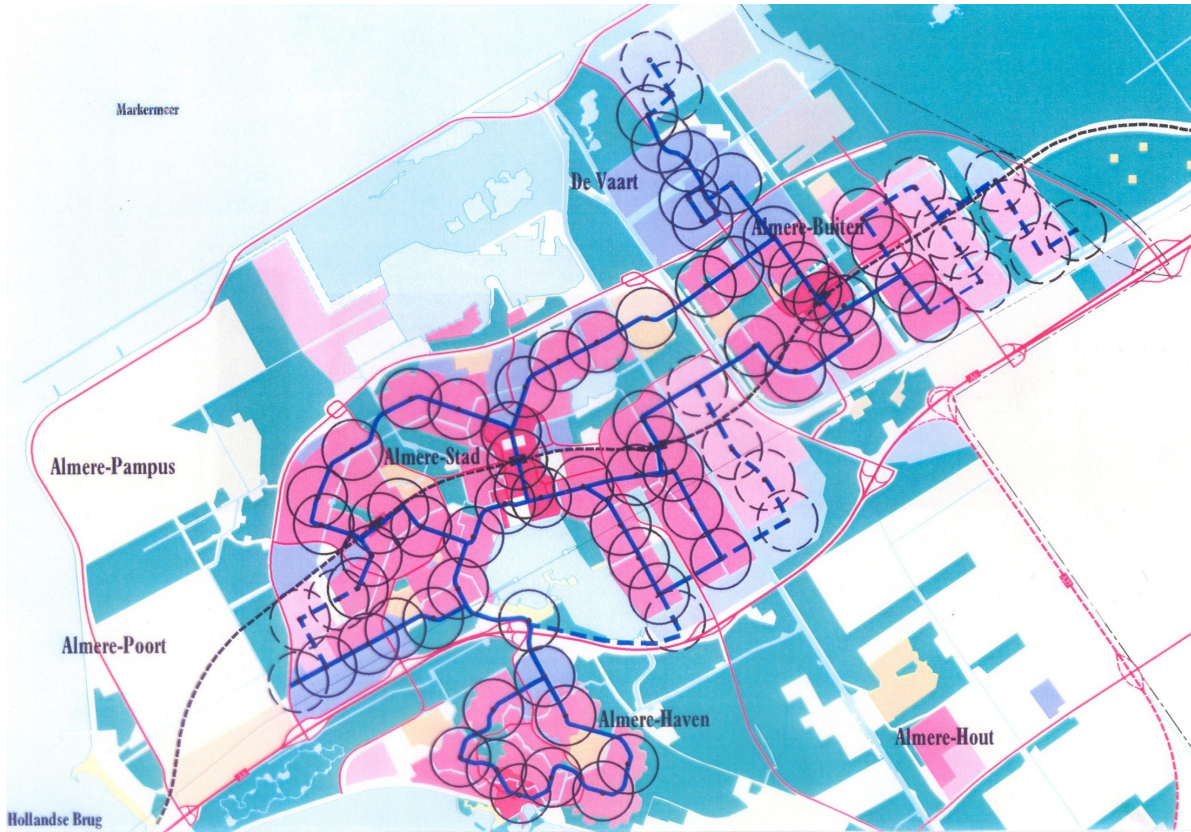


Five strategies for small and medium sized cities

- Integrated planning
- Slow down the car (& retrofit land-use)
- Speed-up the bike
- Connect modes
- Community transit

Integrated planning

Almere: The transit suburb



2x bus users compared to average suburb, but
Lower share of cycling

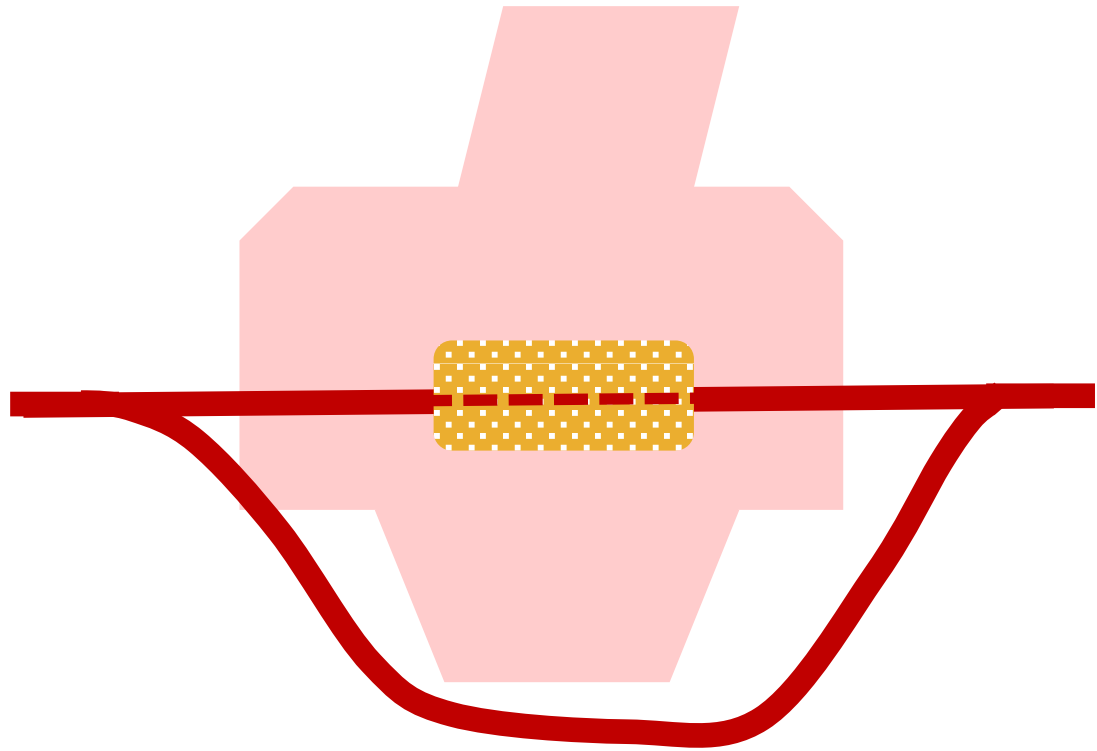
Integrated planning

Houten: The bicycle suburb



Slow the cars down

Remove through traffic



Slow the cars down

Design for the right speed



Before 43 km/h

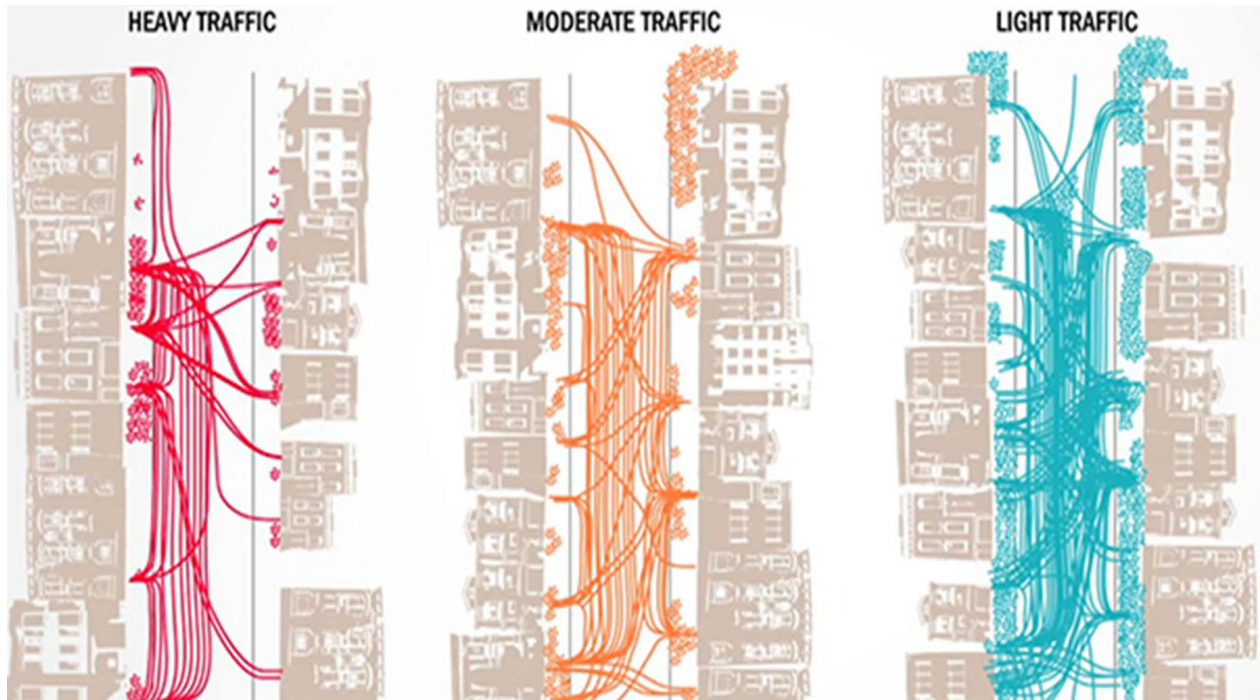


After 32 km/h
50% more cyclists

Source: Goudappel

Slow the cars down

Shared space



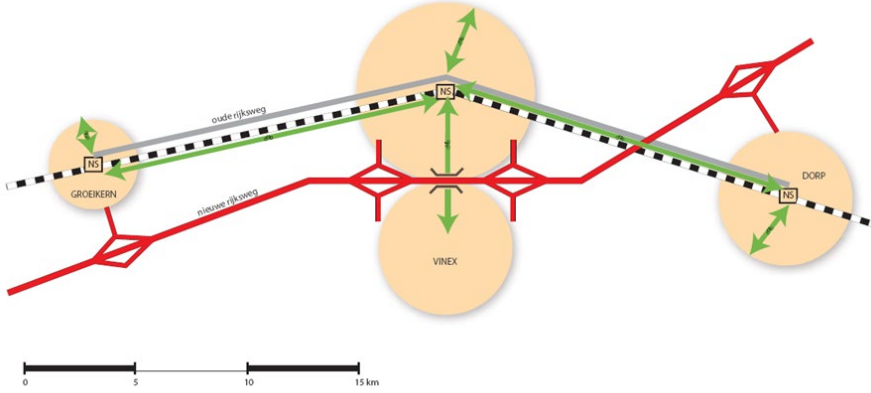
Source: Appleyard study 1969



Shared Space in Heemstede

Speed the bike up

Bike highways & E-bike

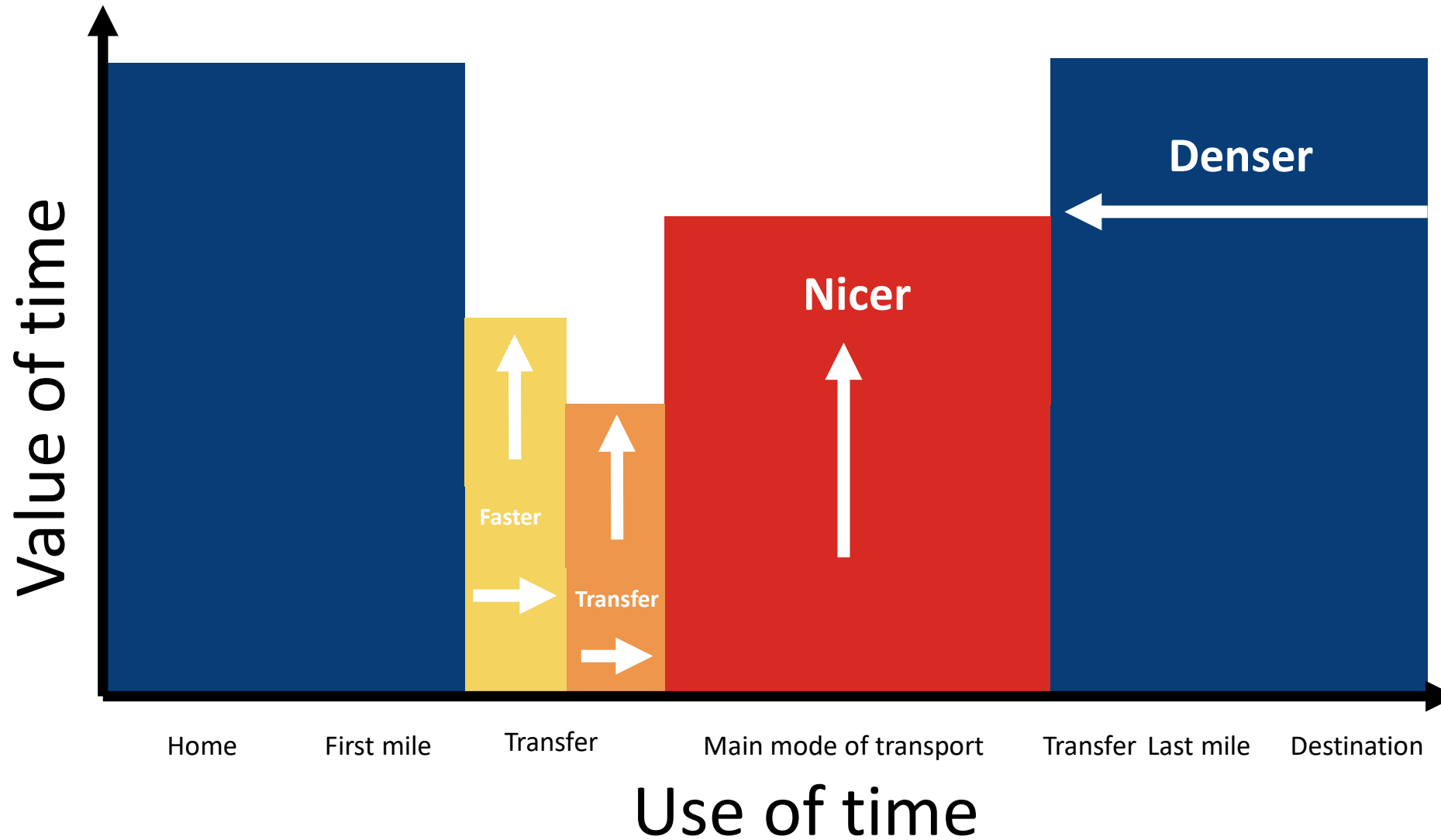


Speed the bike up Slowlanes



Connecting modes

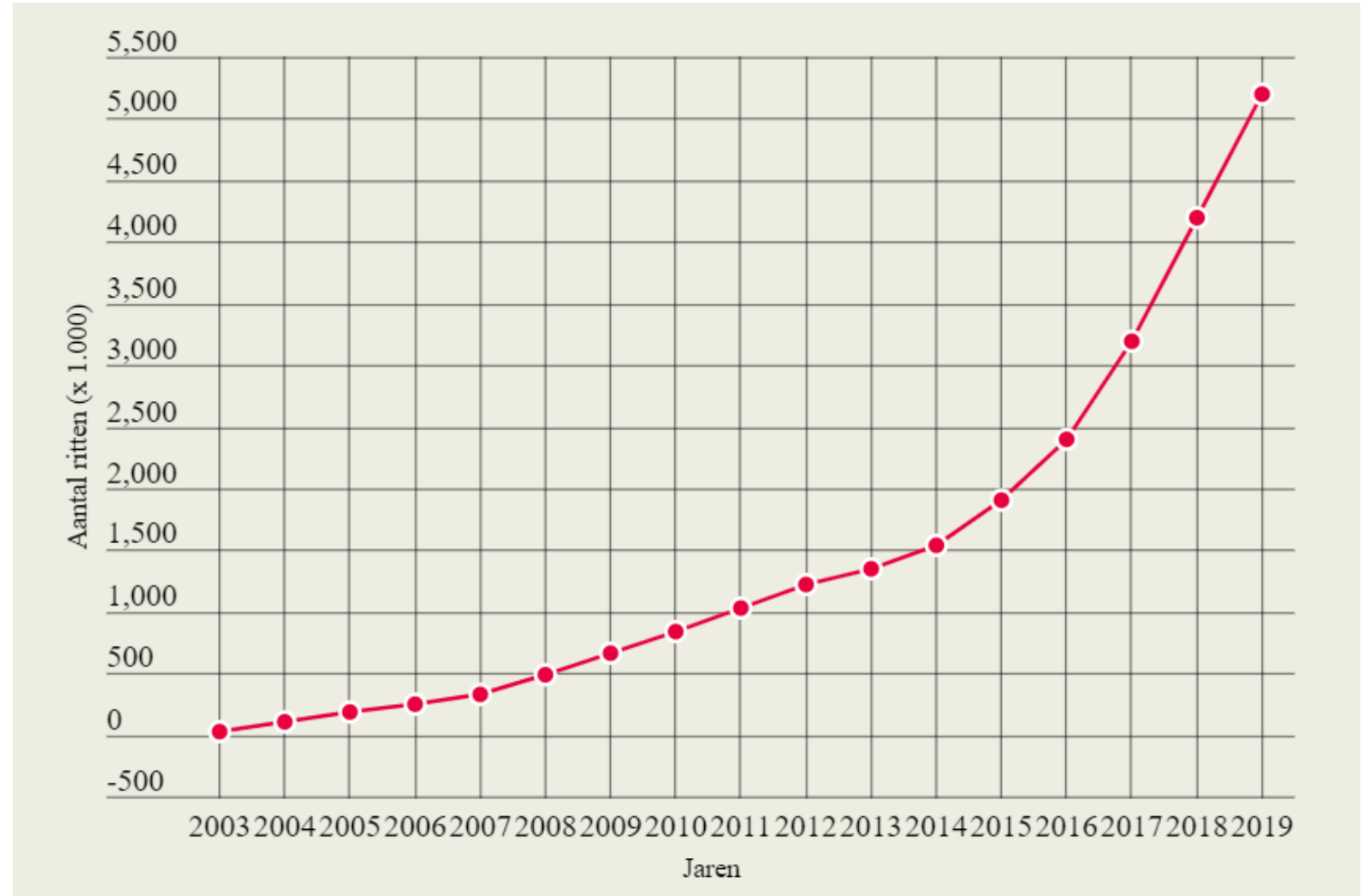
A transit trip from home?



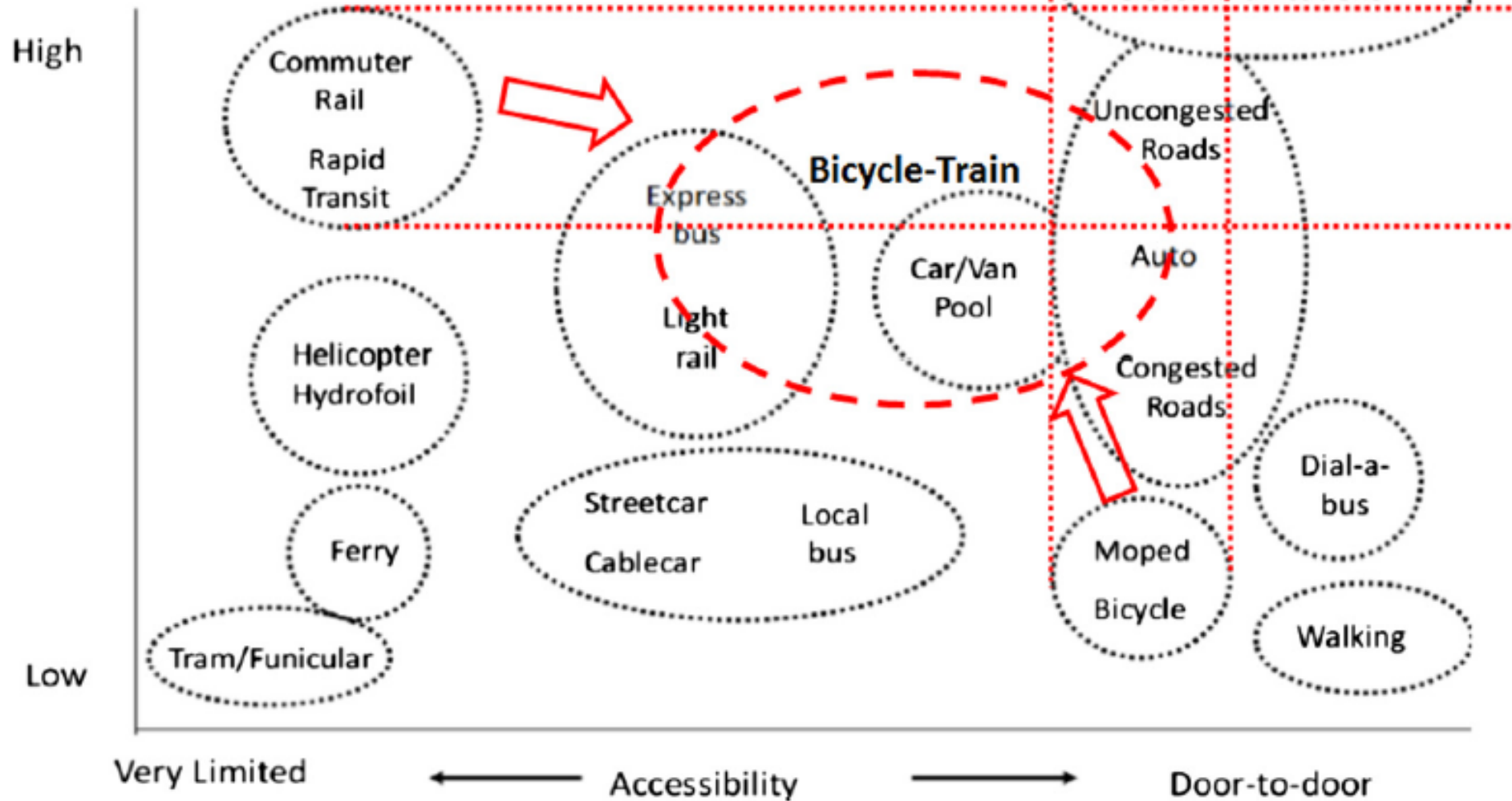
Adapted from
Peek

Connecting modes

Bike-train combination



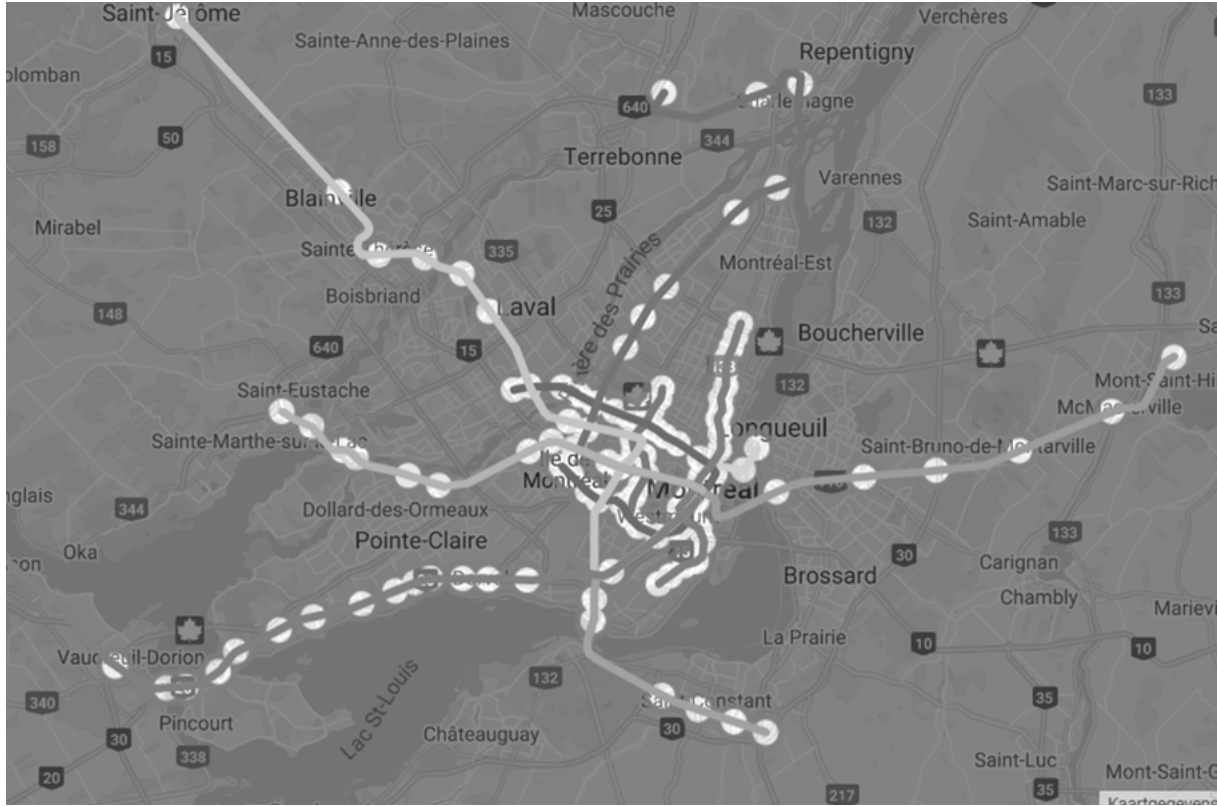
Typical Speed
(on that mode)



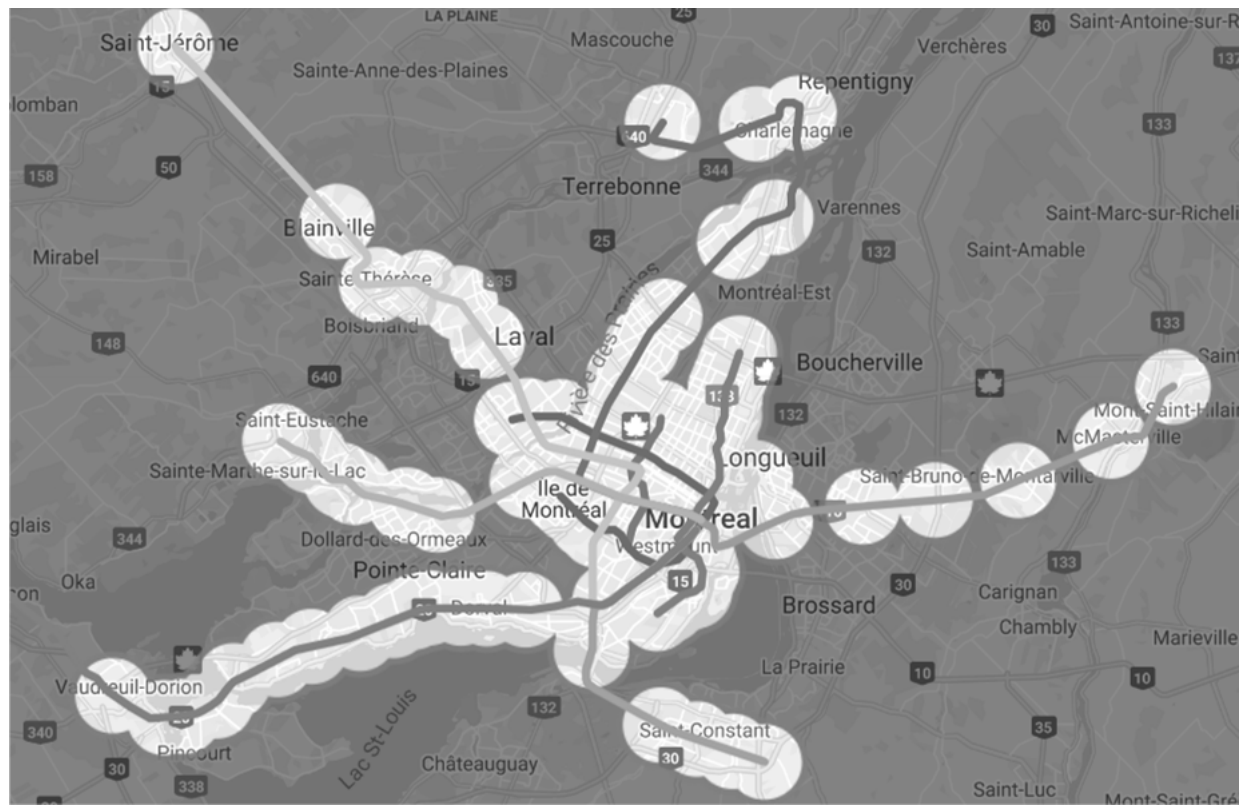
Source: Kager 2016 adapted from Meyer and Miller

Connecting modes

Bike-train combination



Transit + 10 min. walking



Transit + 10 min. cycling

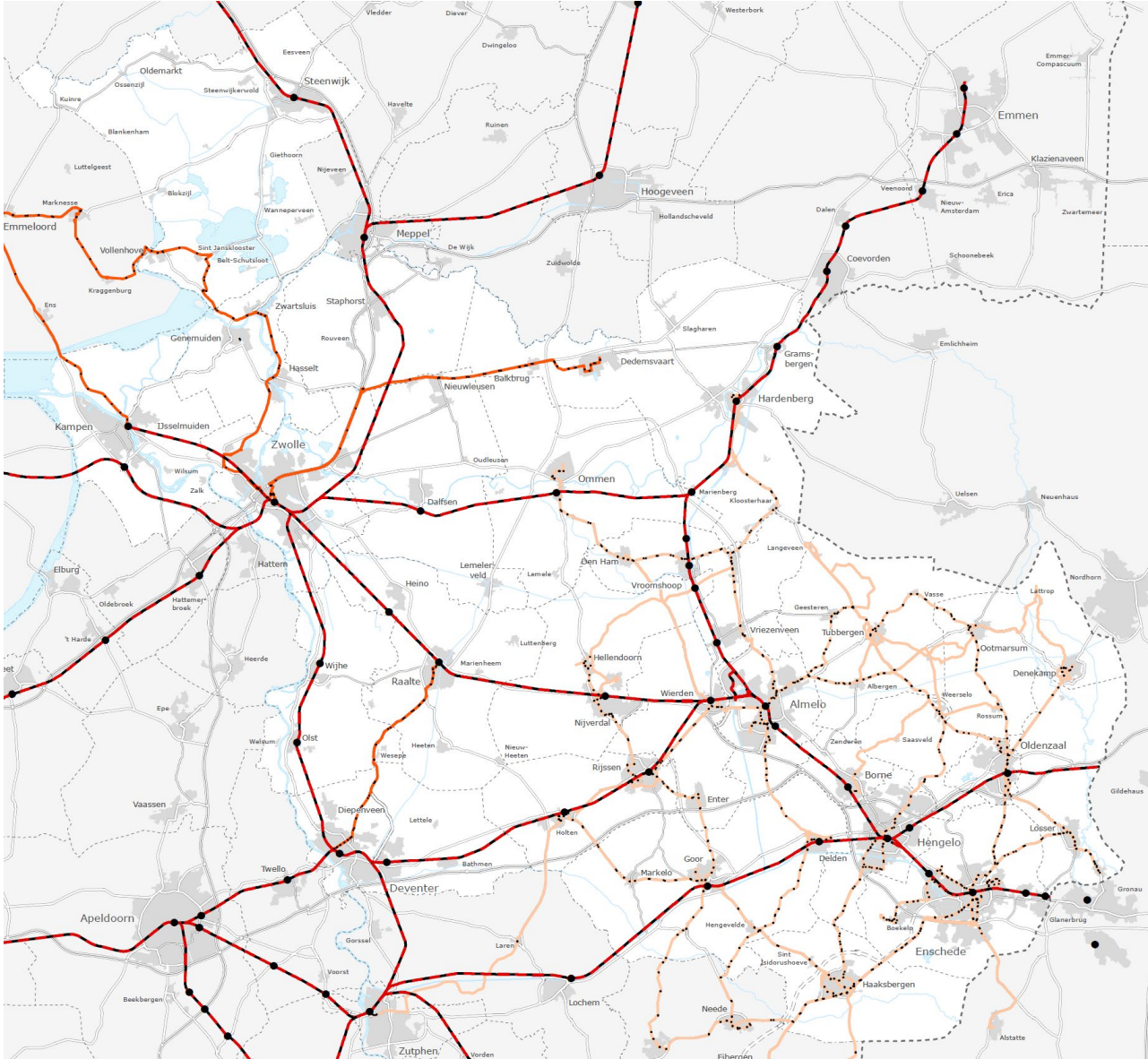
Connecting modes

Attractive hubs



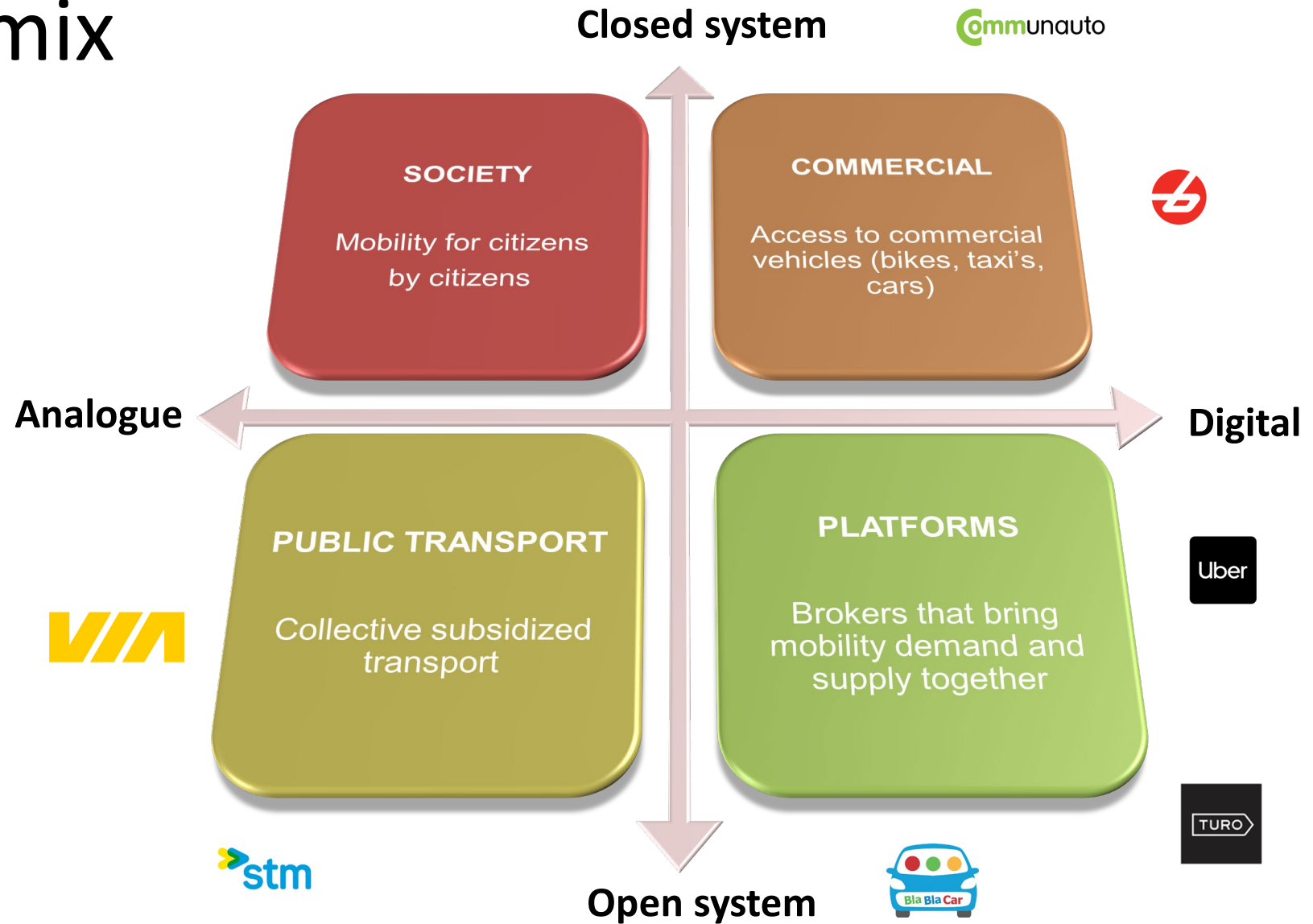
Community transit

Trial and error



Community transit

Finding a new mix



Community transit

Village ride sharing



To summarize

Short trips <5 km	Slow down the car	Community transit	Integrated planning
Longer trip >5 km	Speed up the bike	Connect modes	Integrated planning

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