

Goudappel

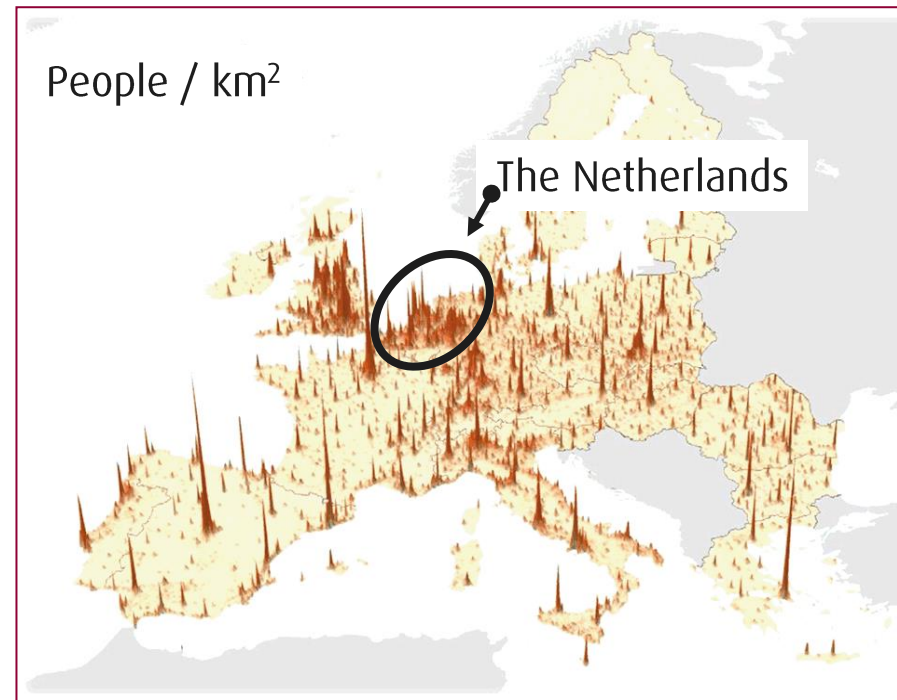
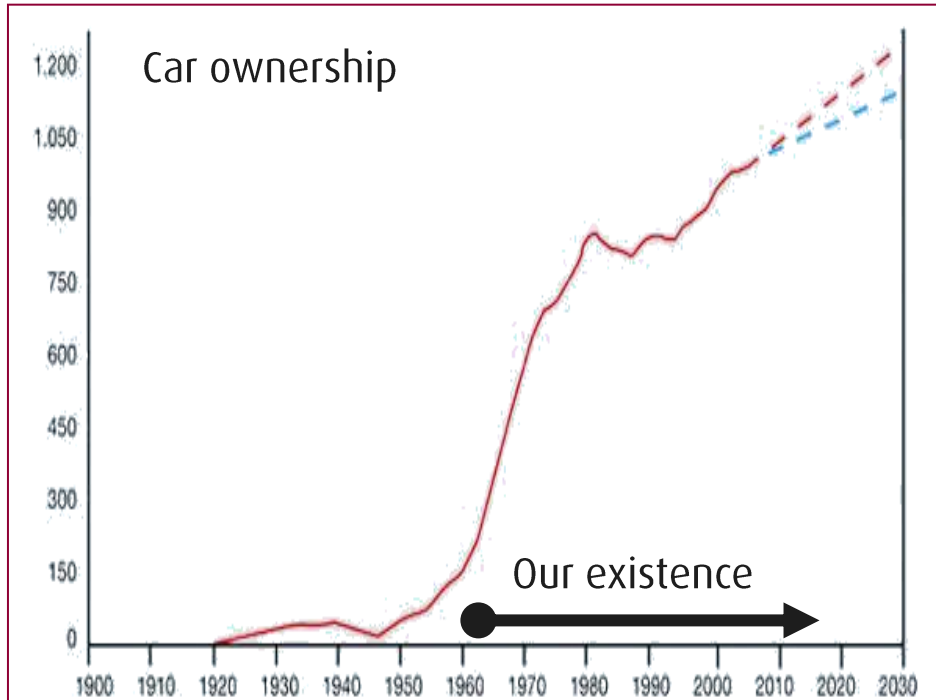
Trade Mission California – Netherlands

1. Our company
2. Our achievements
3. Our references

Goudappel – Our company



The Netherlands: Planning for mobility in a dense urban area



Pleased to meet you

- 60 years of experience in mobility engineering, since 1963
- Leading position in mobility in the Netherlands
 - Traffic modelling and data analytics
 - Consultancy and design
- 280 experts to cover all aspects of mobility (Planners, designers, psychologists, researchers, IT-professionals, data scientists, etc)
- Employee-owned

Our mission is to use proven Dutch solutions on mobility to create sustainable, accessible, liveable and economic flourishing cities'

Goudappel in the Netherlands



Our organization: 280 employees

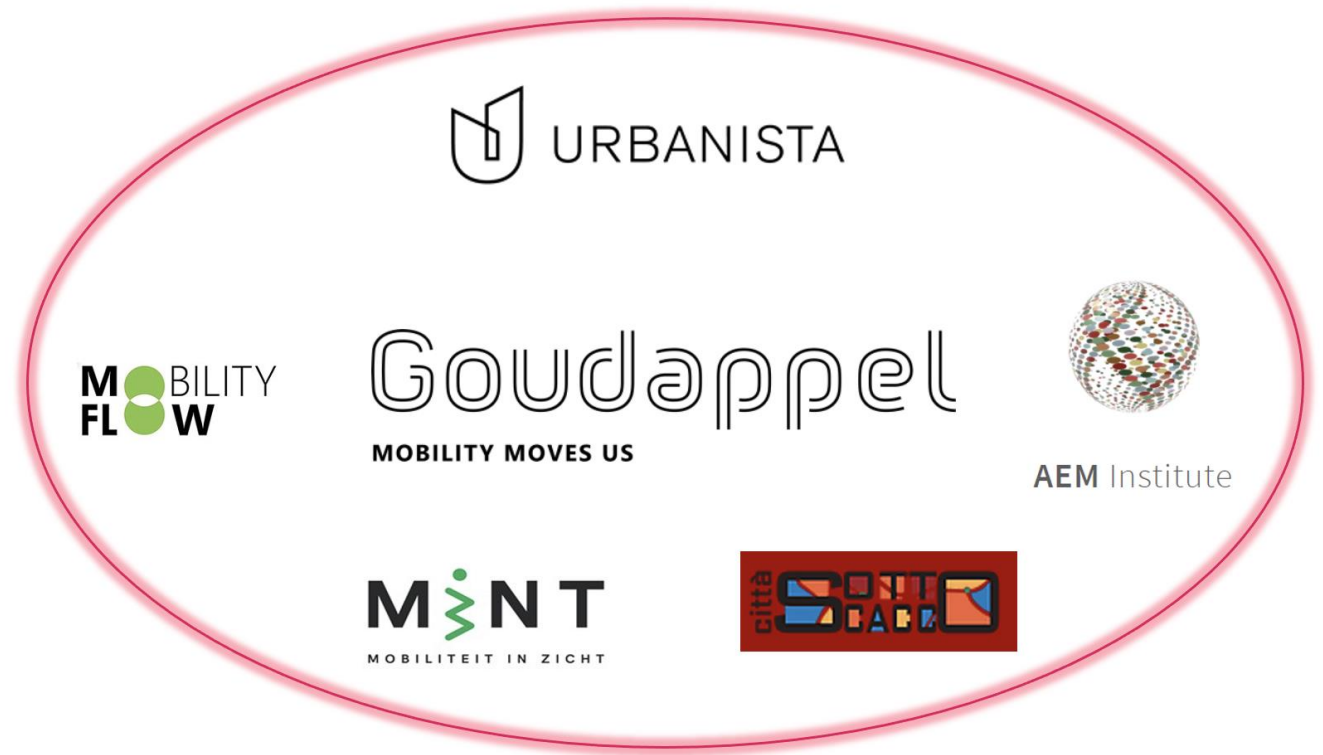
- Mobility & Space = 80 fte
- Specialists (public transport, research, parking, spatial economics) = 80 fte
- Traffic modelling and traffic management= 60 fte
- Dat mobility = 60 fte

- Participations in NL:

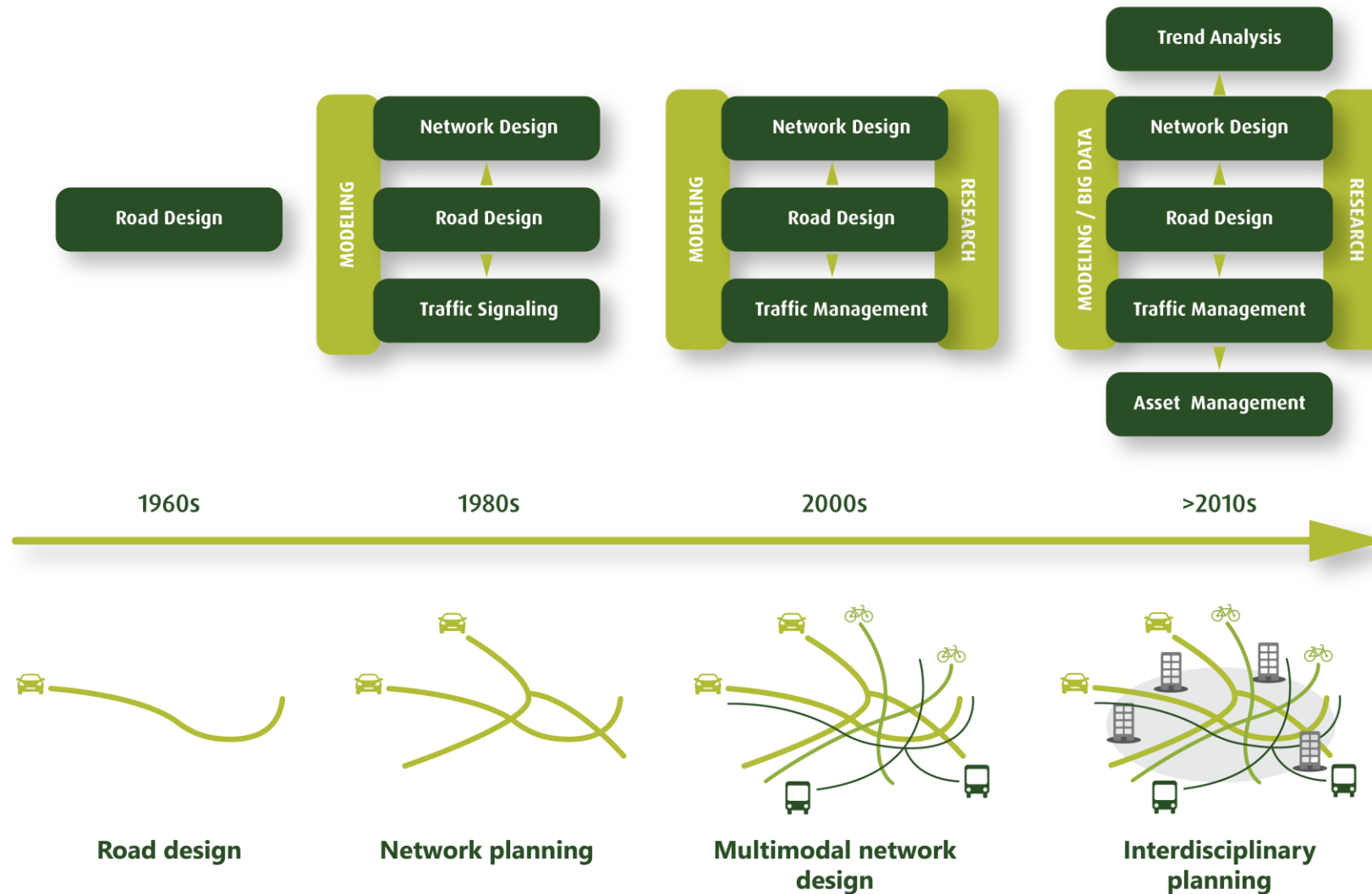


Goudappel international participations

- AEM – Germany
- MINT – Belgium
- CSS – Italy
- Urbanista – Sweden
- M-Flow - United States (Portland)



Our development over time



Our clients

- 90% of Cities and municipalities
- 80% of Public transport-companies
- All Provinces and (metropolitan) regions
- Schiphol Airport and other port-authorities
- departments of State government (Infrastructure, Spatial Development, Environment)
- Private parties (real estate developers, companies like Mc Donalds, Ikea)

Achievements in 60 years of mobility planning

Together with our clients

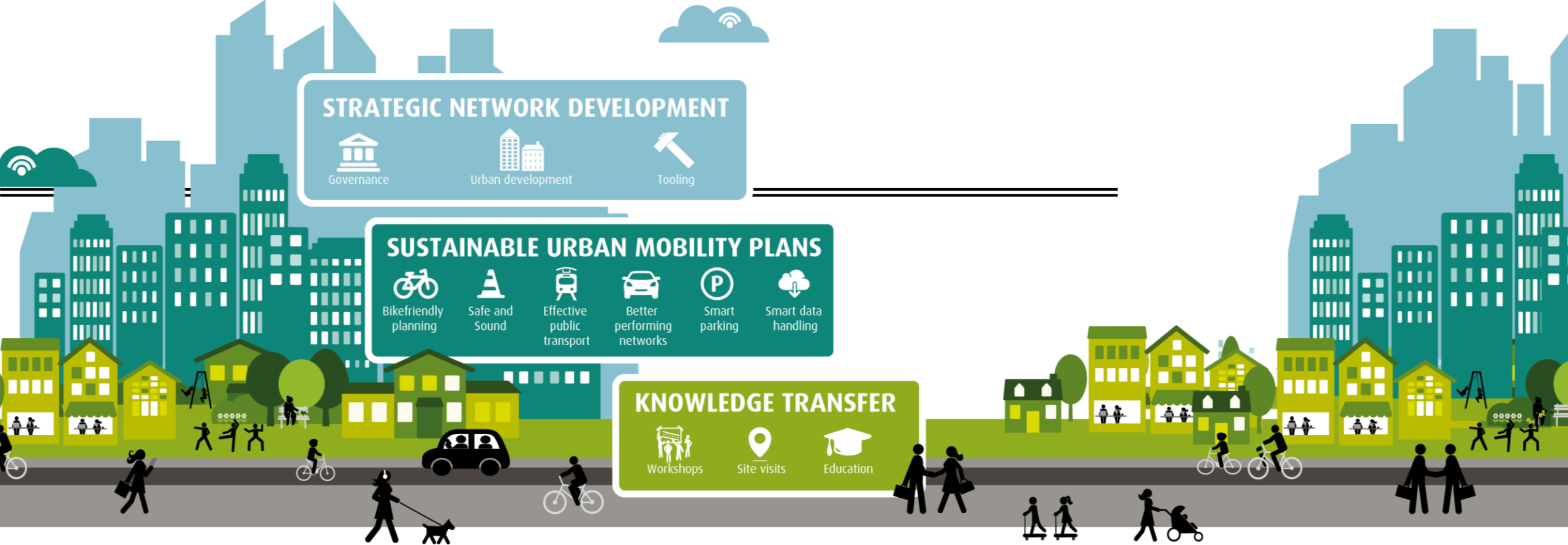


What we achieved in 60 years of experience in the Netherlands

- Healthy, liveable attractive and economically flourishing cities.
- Cost-efficient (public) transport systems.
- The world's highest use of cycling.
- The world's transport-safest country.
- One travelcard in the whole country (PT, Bikesharing, Park&Ride)
- Getting the most out of space and infrastructure with intelligent traffic management.



'We are proud to see we got the cities we planned for.'



'Our mission as Goudappel is to use proven Dutch solutions on mobility to create sustainable, accessible, livable and economically flourishing cities worldwide'



Healthy, liveable, attractive and economically flourishing cities



'If you plan for cars and infrastructure, you will get cars and infrastructure, smart moving cities plan for people and places, so they get....



Cost-efficient (public) transport systems



The worlds' highest use of cycling

Why we bike

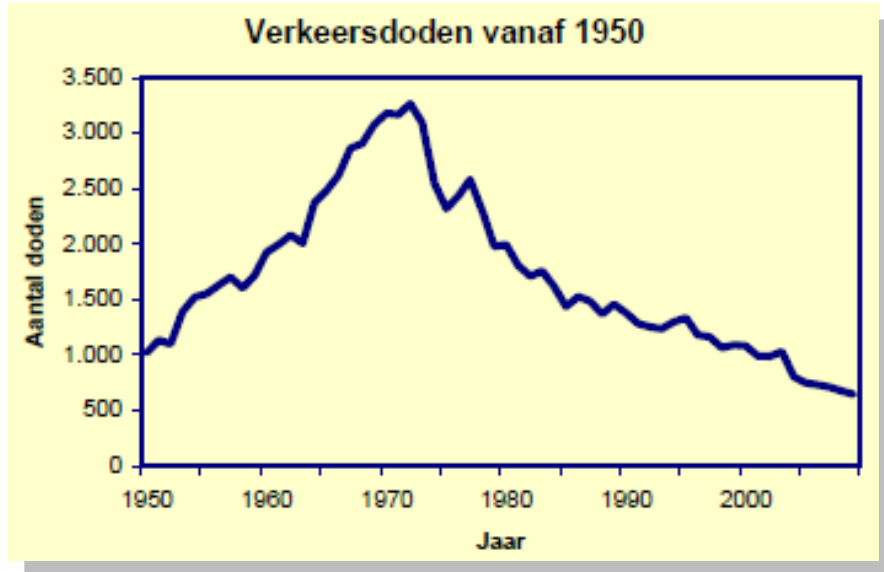
- Cheap, fast, fun
- Healthy
- Compact: less use of surface
- Green: less noise, clean air
- Reducing urban congestion
- More mobility

Cycling-inclusive planning

- *Potential driven investment (also e-bike)*
- *Cycling culture*
- *Parking facilities*
- *Cycling highways*
- *Bike sharing systems*
- *Public transport alignment*



The world's transport-safest country



Despite growth in mobility, fatality rate dropped.

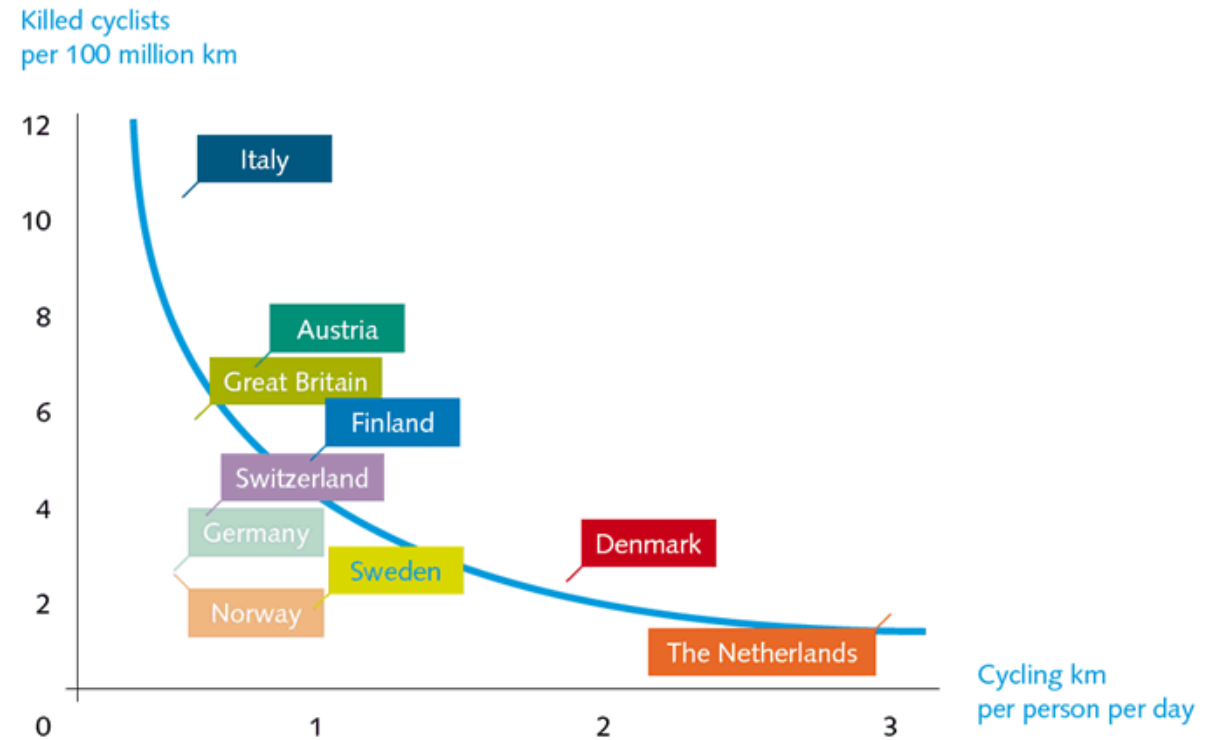


Figure 8: Relation between accidents and bicycle usage

Getting the most out of space and infrastructure



"It is not only about creating more infrastructure, it also about making better use of existing capacity"

Melanie Schultz van Haegen

Minister of Infrastructure & Environment

Our references

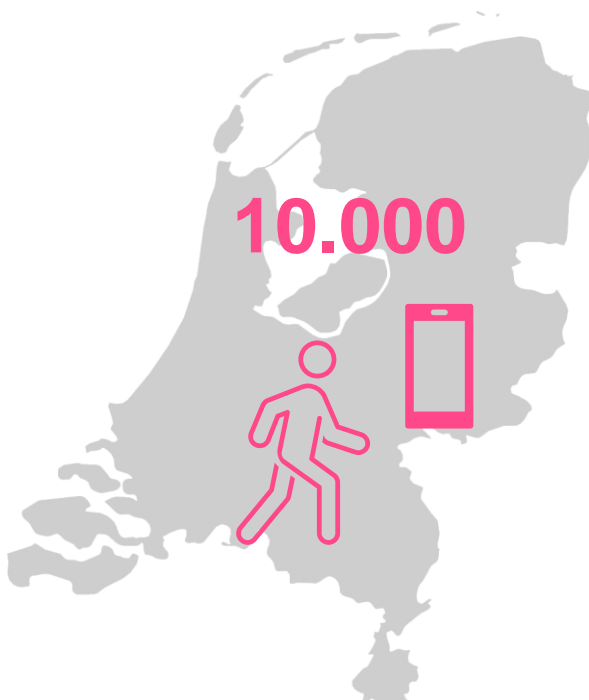


Street design

- the new 30 km/h framework
- Crossings
- Functional ambiance (book)
- Straat in beeld (website)
- CROW publications and Campus



National Travel Survey

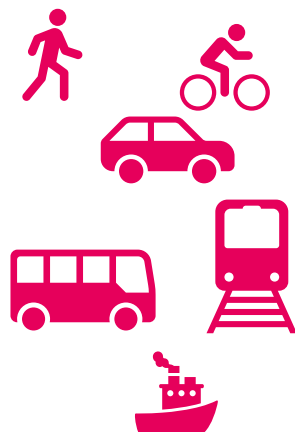


continuous (start 2018)
up to date
long-term data collection
representative
data analyses

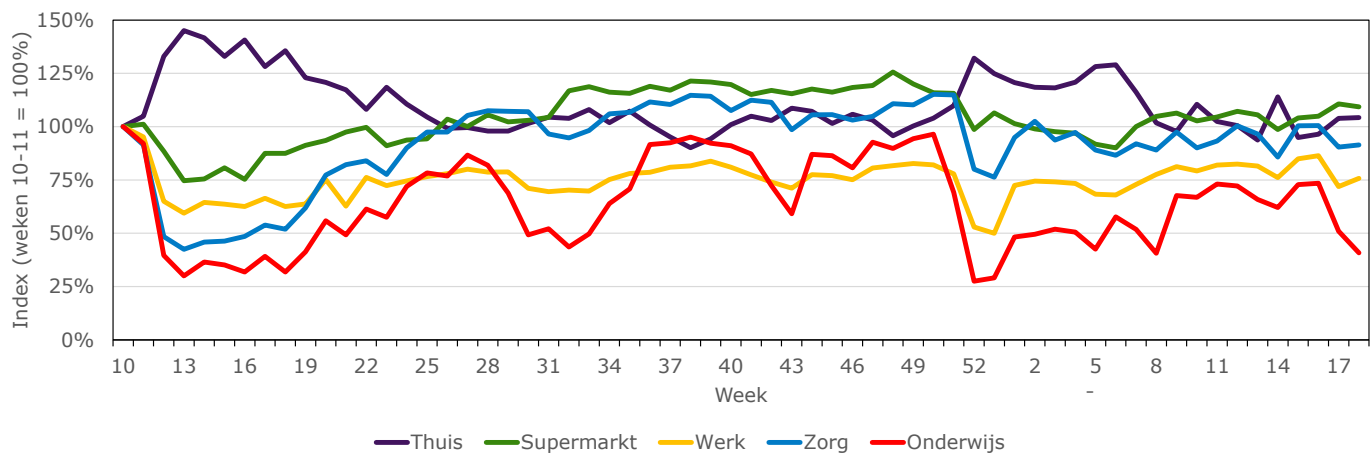


Nederlands Verplaatsingspanel

trips

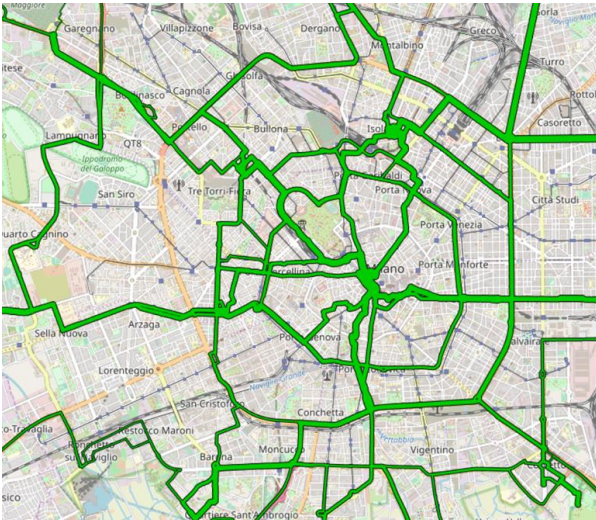


motives

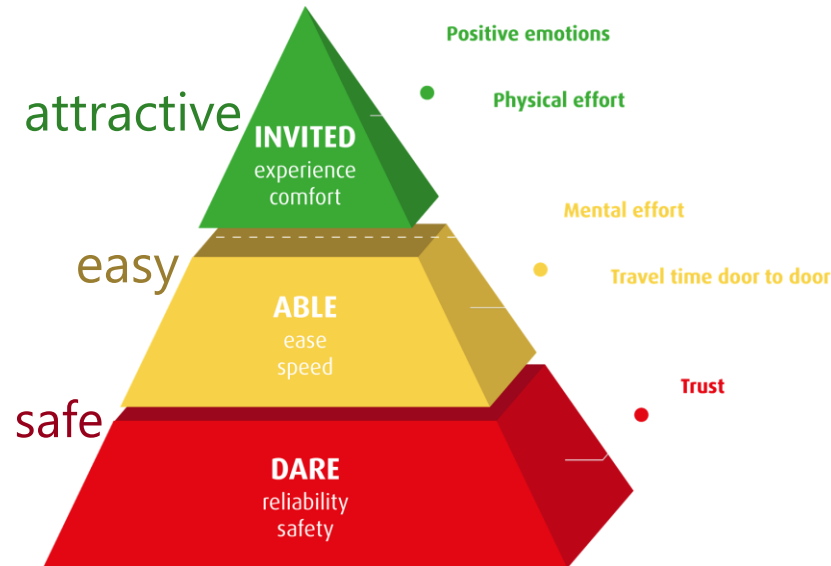


AAA in Cycling: Take Cycling to the Next Level

1) **Analysis** with the MoveMeter:
what are the most promising corridors for cycling? What are the possible effects on congestion in your city?



2) **Assessment** with the International Cycling Assessment: How do cyclists experience cycling on these corridors now? What is the best approach to improve cycling?



3) **Action**: Defining integrated projects for cyclists on these corridors, e.g. street design, crossings and prioritising of modalities.



Sustainable urban mobility plans

- Utrecht
- Amsterdam
- Antwerpen



Research and development

- Experience-studies
- Placemaking
- Hubs



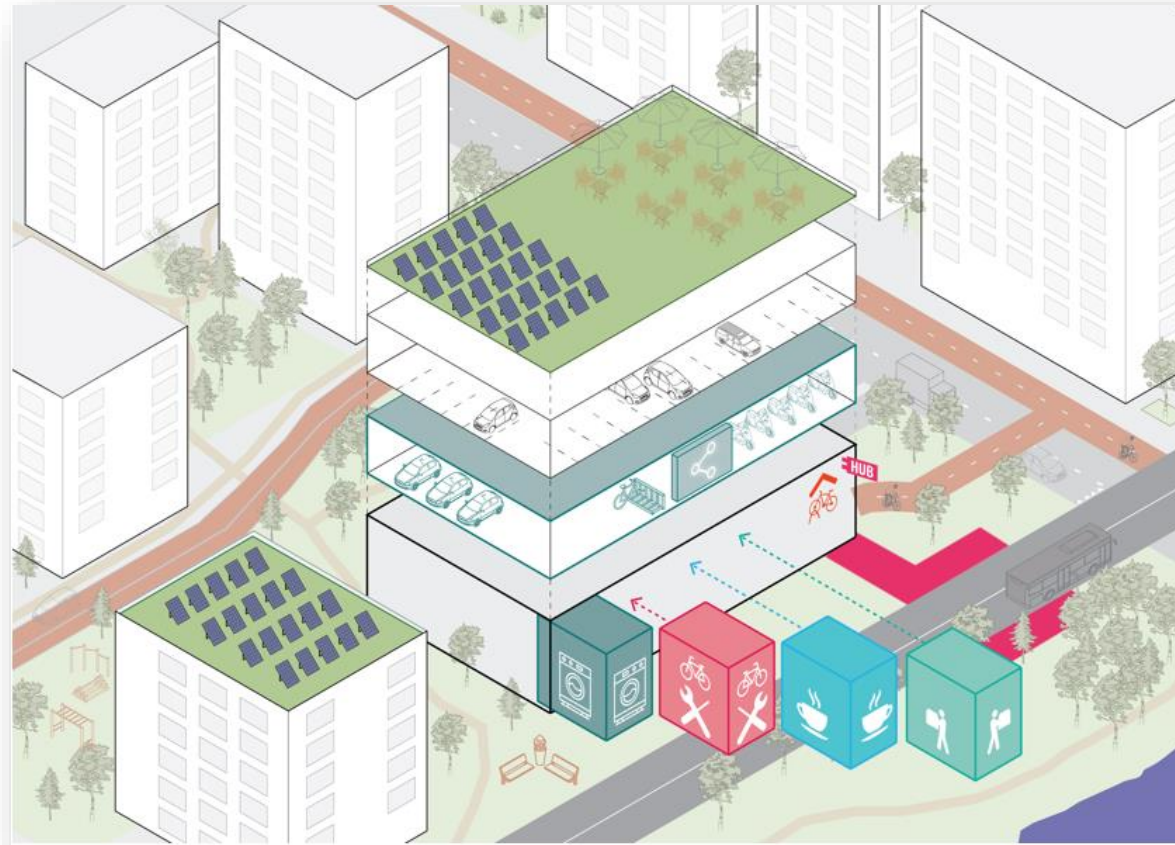
Quality of urban space



**KLIMAAT
ADAPTATIE
LABEL**

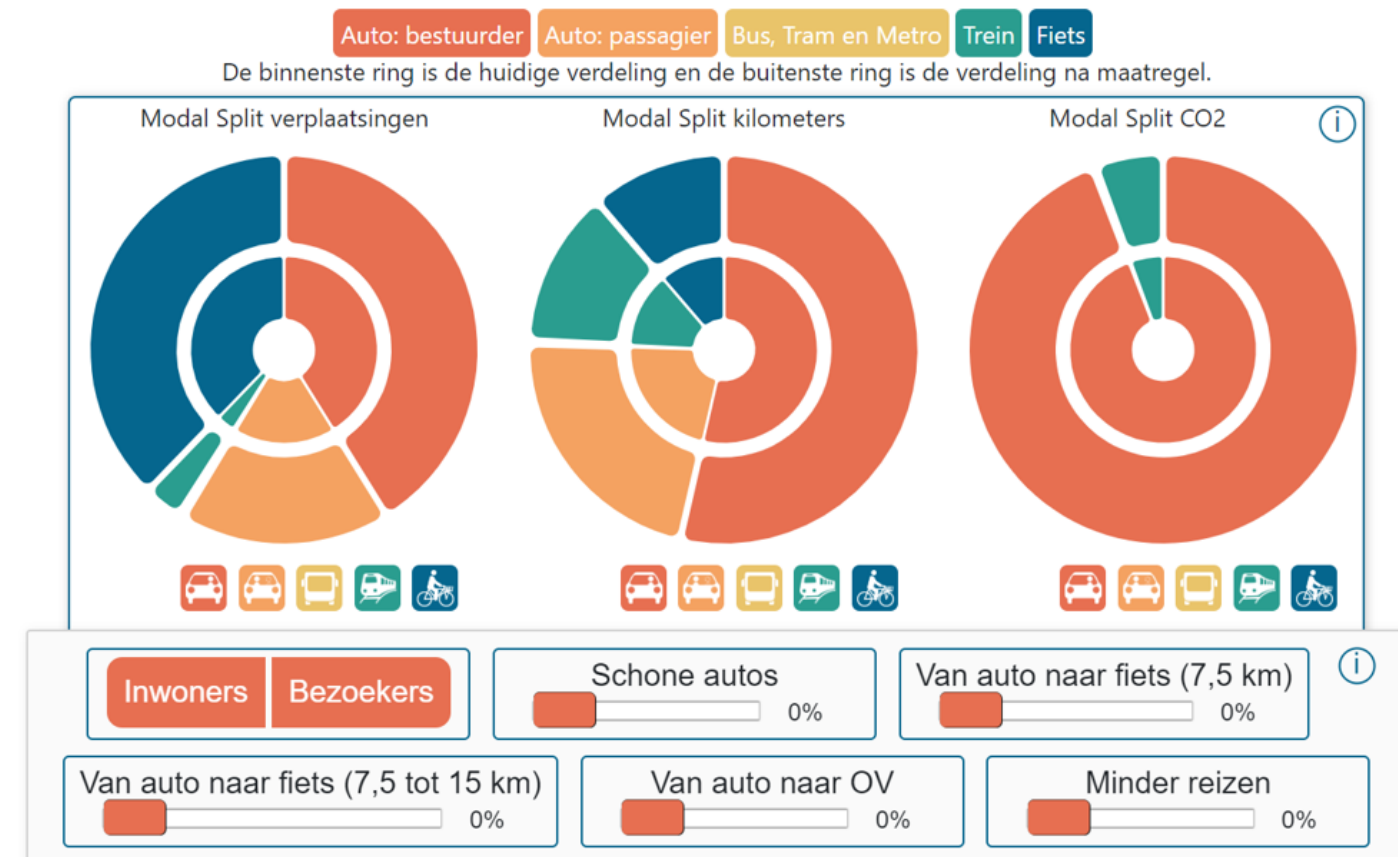
Low car Urban development

- Merwede Kanaalzone Utrecht
- <https://Merwede.nl>

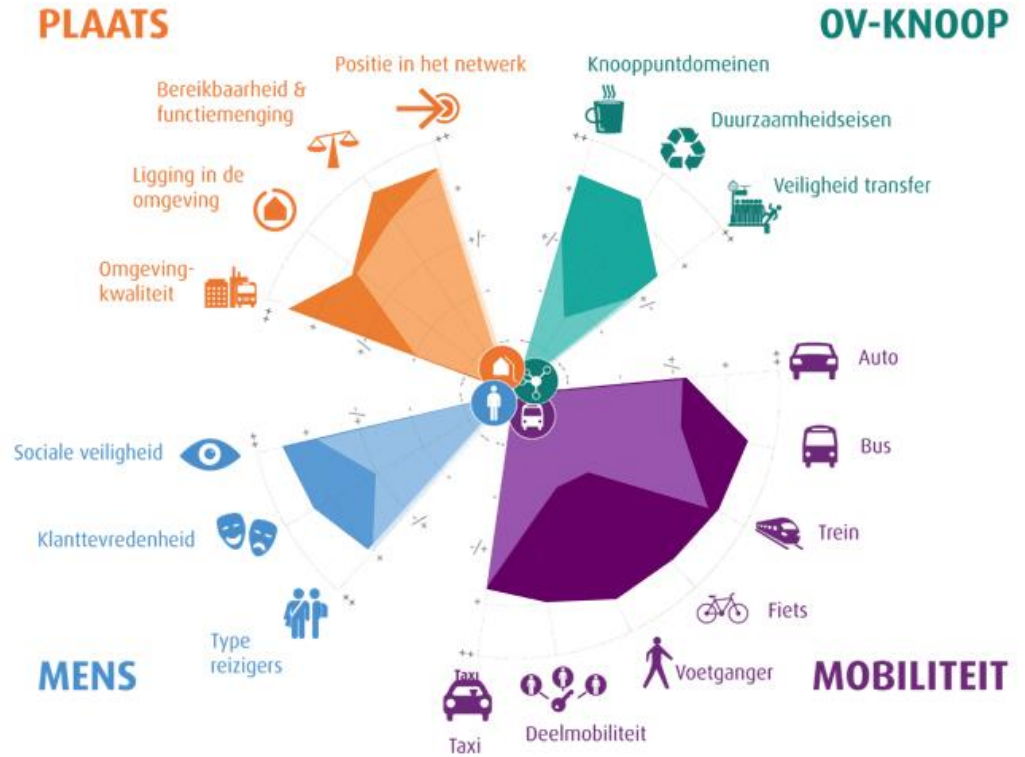
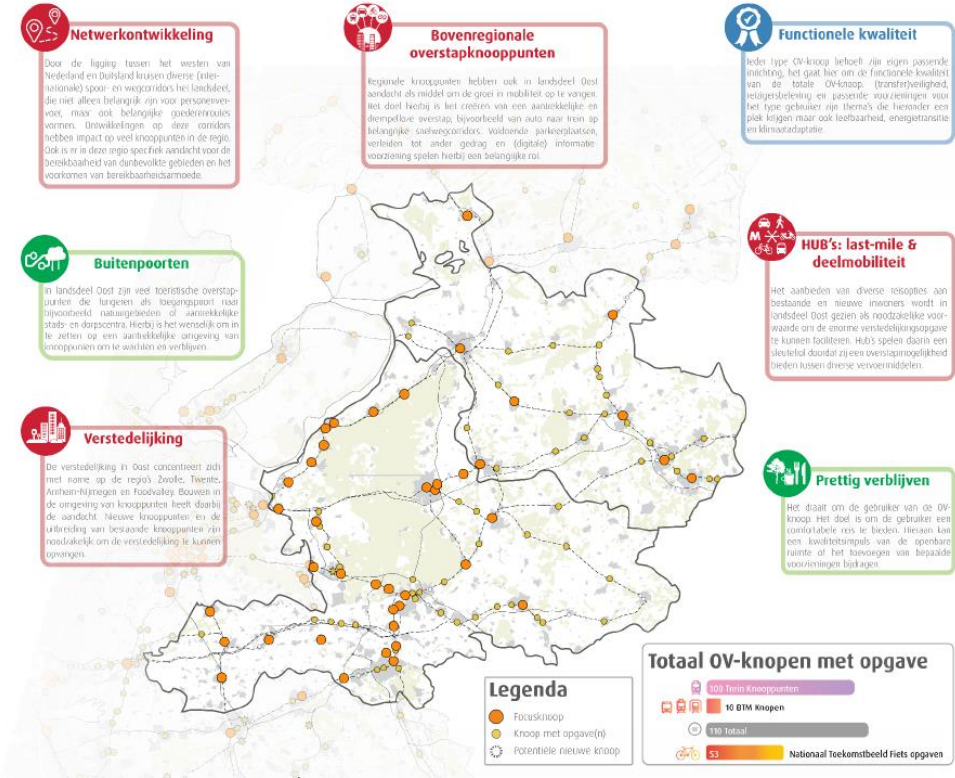


Climate and energy

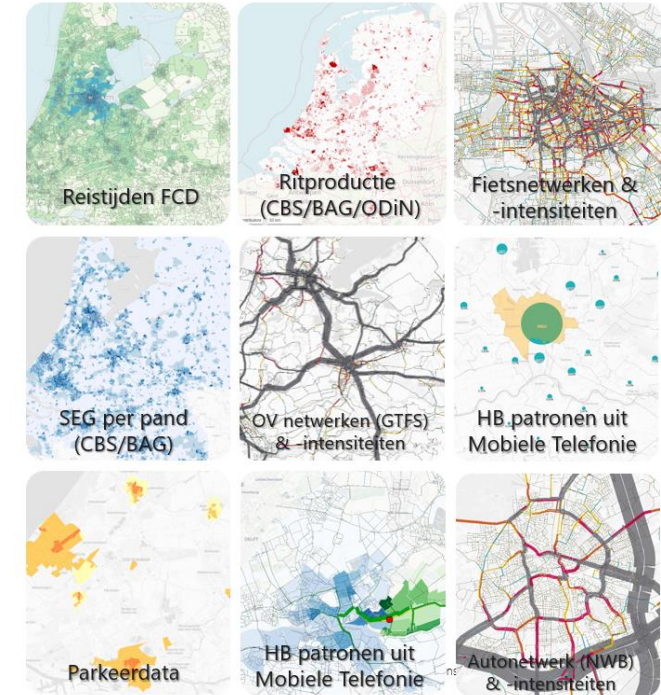
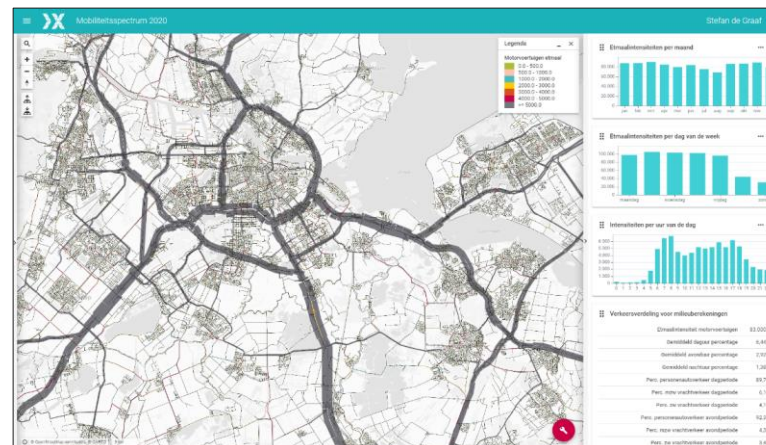
- www.uitstootvanmobiliteit.nl



Mobility hubs



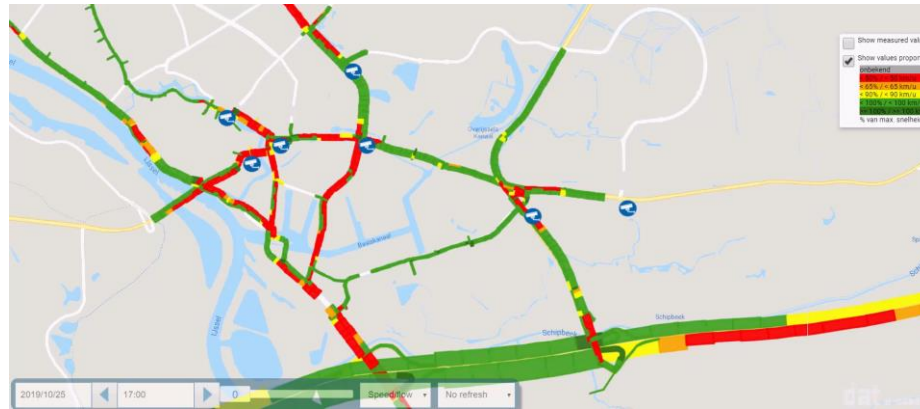
Data fusion and traffic-modelling



Omnitrans Next Analytics

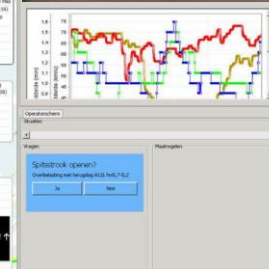
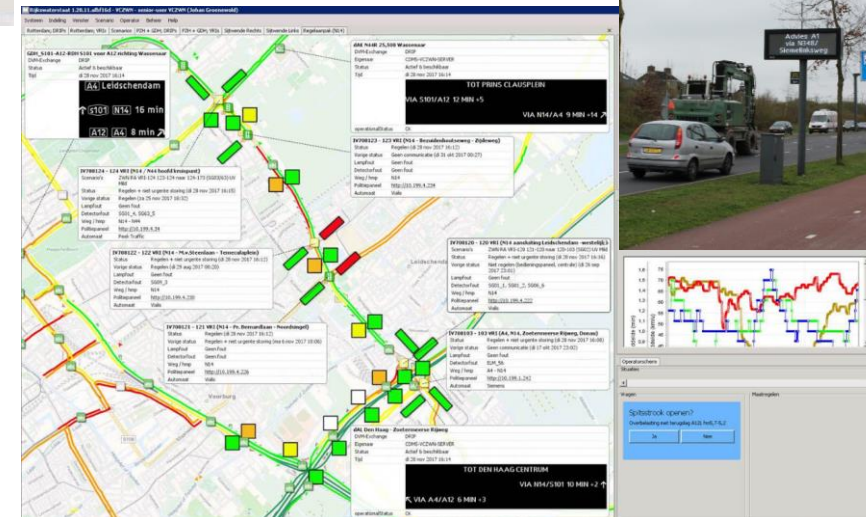


Traffic management and real time modelling



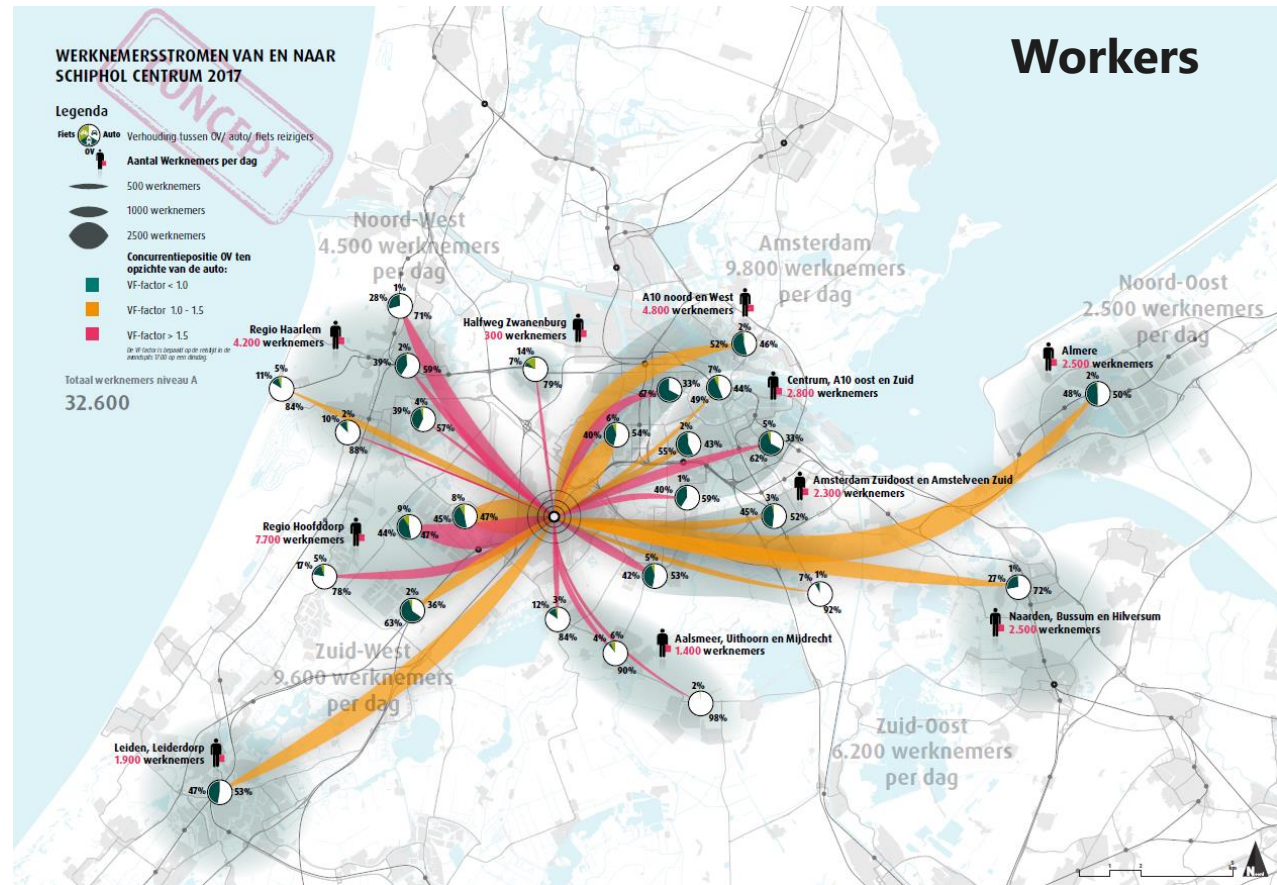
Traffic situation and Triggers

Floating Car Data, TLC-data & loop

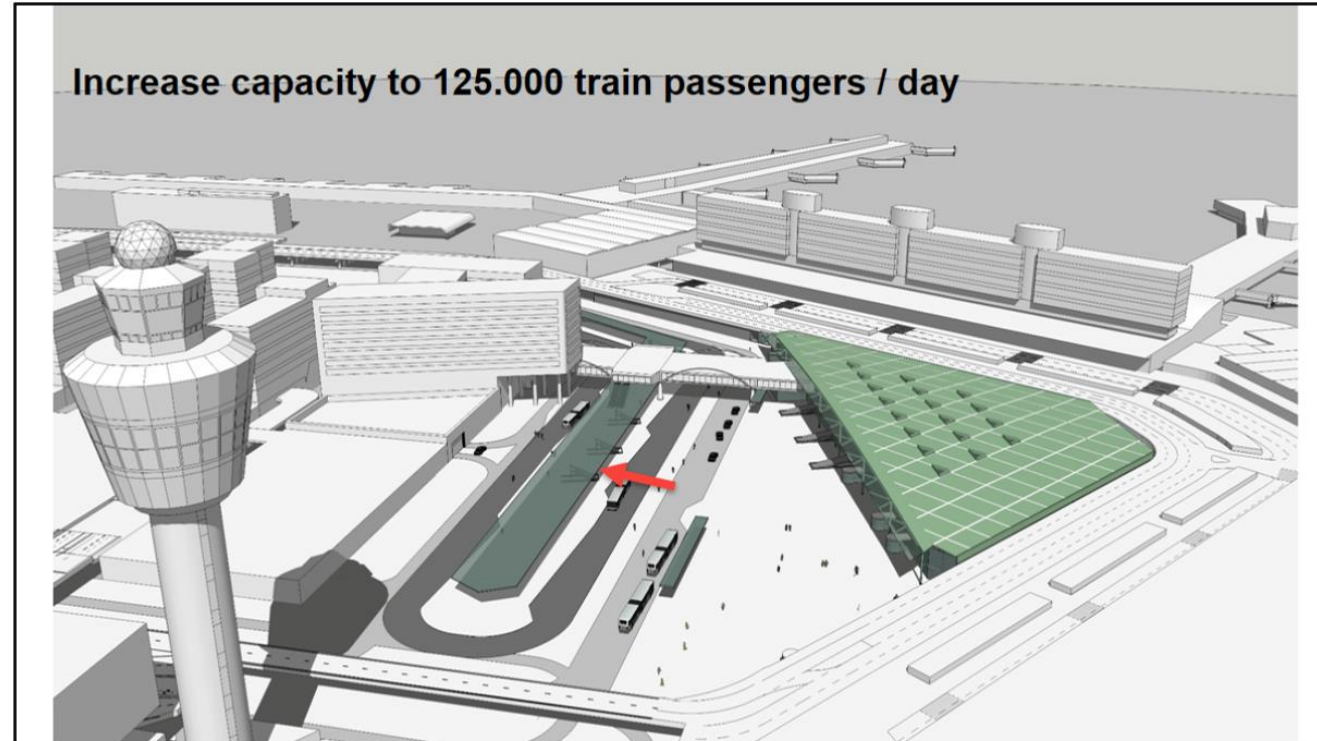


Airport accessibility

- Research
- Multimodal Planning & Design



Redesign of Schiphol Plaza Busstation

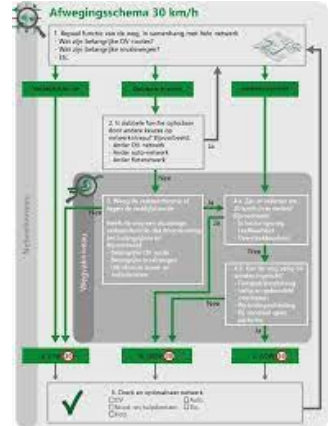
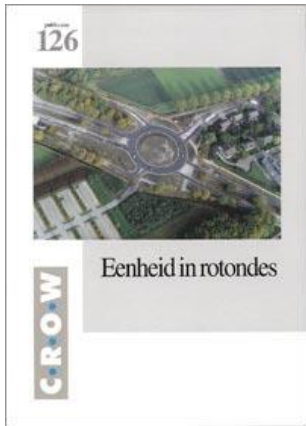


- New direct entry points from the bus station to the underground platforms of the train stations are to be created.

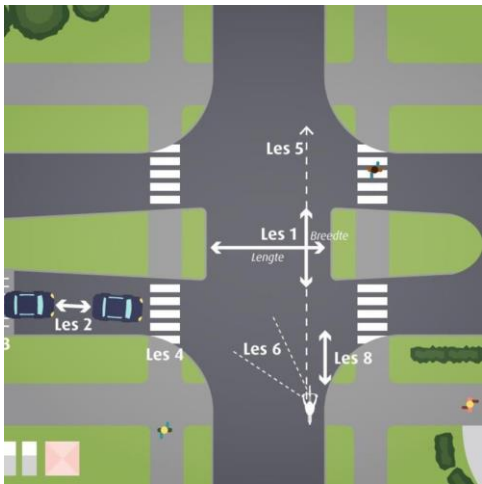
Redesign of Amsterdam Schiphol Busstation



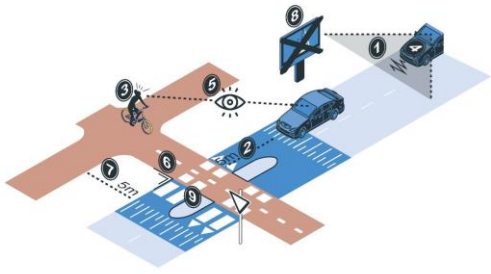
Road safety: the experts behind design manuals



fietseraad
CROW

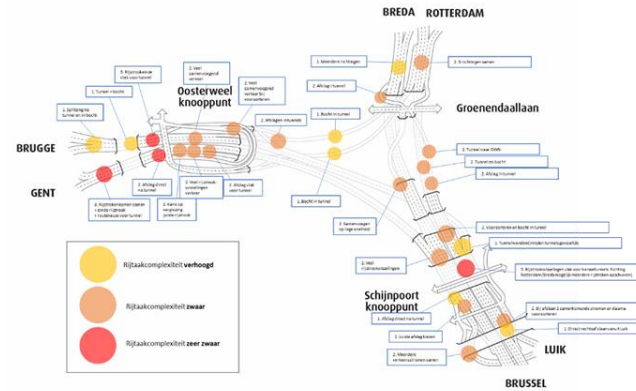


Fietsoversteken in de voorrang



Road safety: road safety and human factors

- Road Safety Audit
- Traffic Behaviour
- Human Factors
- Safety impact analysis



Road pricing / Congestion charging

- Approach
- References

Congestion charging and road pricing

Dirk van Amelsfort, PhD is our internationally recognised expert on congestion charging with experience in Stockholm, Gothenburg, Hong Kong, Beijing, Ho Chi Minh, Bangkok, Jakarta, Vancouver BC, LA, and Portland.

Services we provide:

- Pricing policy design
- Public acceptability and equity assessments
- Impact assessments
- Transitions and pathways
- Revenue use and impacts

Vancouver Mobility Pricing Independent Commission



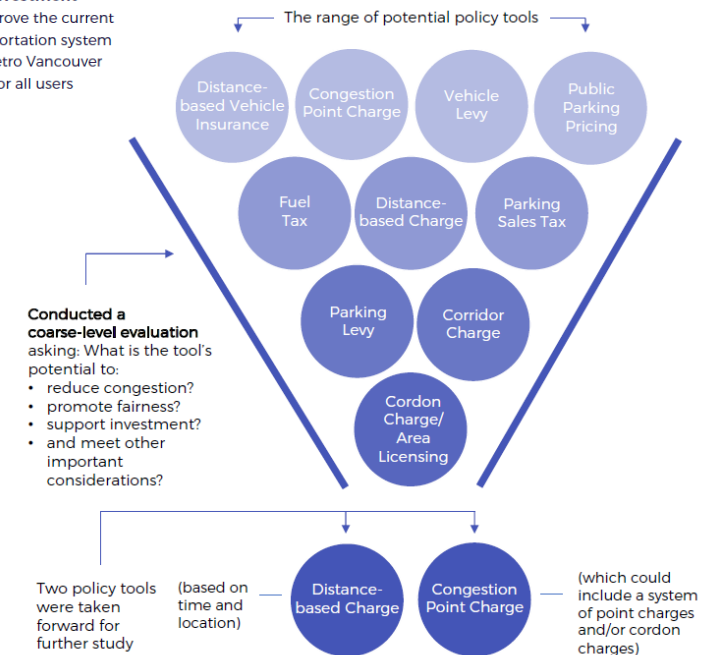
Reduce traffic congestion
on roads and bridges
across the Metro Vancouver
region so people and goods
can keep moving, and
businesses can thrive



Promote fairness
to address concerns around
the previous approach to
tolling some roads and
bridges but not others, as
well as providing affordable
transportation choices



**Support transportation
Investment**
to improve the current
transportation system
in Metro Vancouver
for all users



Our software

- OmniTRANS Horizon
- OmniTRANS Realtime
- OmniTrans Analytics
- Move Meter (policy evaluation)

<https://www.youtube.com/watch?v=IbisX-QRkQ0&t=8s>



Specials



Our examples: the Netherlands

Large scale transport planning



Amsterdam Metropool region
Urban planning North-East expansion
(‘Almere 2030’)

220 km² , 2.2 mln inhabitants, 5700 zones



Dutch National Transport Model
Multimodal network analysis and planning

25.000 km² , 18 mln inhabitants, 6700 zones



Greater Rotterdam area
Planning second western river crossing
Port of Rotterdam

400 km², 3 mln inhabitants, 5000 zones



Brainport region
Transportation planning ‘Brabant Breed’

5000 km², 2.5 mln inhabitants, 3300 zones

Smart mobility solutions



Peak avoidance technology
Personalized travel advice
Serious gaming / rewards

Utrecht, Rotterdam, Brainport region



Bicycle highways
Fast and safe infrastructure for (e)bikes
Less congestions for cars

Twente, The Hague region, Utrecht region



Intelligent traffic management
Connected cars, smart infrastructure
Realtime (personalized) speed and routing

Assen, Amsterdam, Brainport region



Urban Traffic management
Dynamic, Traffic centre, DRIP's, etc.

The Hague, Groningen, Almelo, Utrecht

Our examples: international



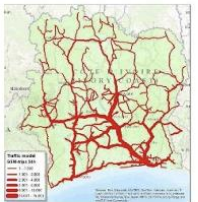
Rio de Janeiro (Brasil)
Transport Planning Model



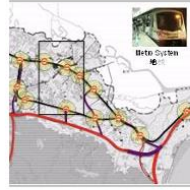
London (UK)
Expansion plan Heathrow
Urban Mobility planning 'Mini hollands'



Kampala (Uganda)
Road categorization plan



Abidjan (Ivory coast)
National transport model
Cell phone data-analysis



Shantou (China)
Urban Mobility Planning

(Classified)



Jakarta (Indonesia)
National Transport Model
Cell phone data analysis

(Classified)



Ruhr metropolis (Germany)
Trendanalysis, strategic planning



Austin (USA)
Bike-inclusive mobility planning

(Also: Los Angeles, San Fransisco,
San Jose, Montreal, New York)

9 cities/regions

Where?

1. Austin and Houston, Texas
2. Minneapolis, Minnesota
3. Los Angeles, San Francisco and San Jose, California
4. Fort Collins, Colorado
5. Wilmington, Delaware
6. Washington, DC en New York
7. Vancouver, Canada
8. Toronto, Canada
9. Regions of Peel / Waterloo Canada





