



**DUTCH  
CYCLING  
EMBASSY**

**POLIS**

CITIES AND REGIONS FOR TRANSPORT INNOVATION

**ANNUAL  
CONFERENCE**

**2022**

# Evaluating the success of cycling cities: Hardware, software and orgware

Lucas Harms • Managing Director  
Dutch Cycling Embassy • December 1st, 2022

# Dutch Cycling: For a Bicycle-Friendly World

The Dutch Cycling Embassy is a vast network of public and private organizations from the Netherlands who wish to share their knowledge and expertise to help cities experience the many advantages of cycling.



**Experience** the Dutch cycling culture first-hand



**Think** about best possible solutions and achievable results



**Act** by applying these solutions to your local context



**Learn** more about effective policies and best practices

[www.dutchcycling.nl](http://www.dutchcycling.nl)



&Morgen

3pm

4wieler

ABELLEISURE  
Meer dan routes!

ABEL  
sensors

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TERDAM  
CYCLE  
CHIC

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management consultants

ARGALEO  
FROM DATA TO VALUE

ARTGINEERING

ARUP

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Beccan Davila  
Puentes  
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USER

B!KEFLIP

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Bike  
minded

BOUGH & BIKES  
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OF APPLIED SCIENCES

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FIETSHANGAR  
4 tot 7 fietsen veilig en droog voor de deur

FOLKERSMA  
ROUTING EN SIGN

Geert  
Kloppenburg

Gemeente Amsterdam

Den Haag

Gemeente Rotterdam

Gemeente Utrecht

Zwolle

Goudappel

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WORKS

horizons  
sustainable future

humankind.

i&o  
research

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en Waterstaat

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groep  
verkeer & meer

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SMART MOBILITY SOLUTIONS FOR SMART CITIES

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METROPOOL  
ARNHEM  
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Ministerie van Infrastructuur  
en Waterstaat

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consultants & engineers

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mobility  
smart moving cities

new  
urban  
mobility

nieuw  
verbeterd



Panteia  
Research to Progress

WILLEX

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provincie  
Gelderland

provincie  
 groningen

PROVINCIE :: UTRECHT

Provincie Noord-Brabant

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Ministry of Infrastructure  
and Water Management

Ring  
ring

Roelofs

Gazelle

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Enhancing Society Together

GoDutchCycling  
RVDB Urban Planning / Lightrail.nl

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fiets  
PLATFORM

STREET  
STUFF!

STUDIO BEREIKBAAR

Swapfiets

theurbanfuture  
usual mighties boosting cities

TILER

Tour de  
Force

TRACIFY  
KEEP YOUR BIKE CLOSE

triple  
Joy

TU Delft

vconsyst

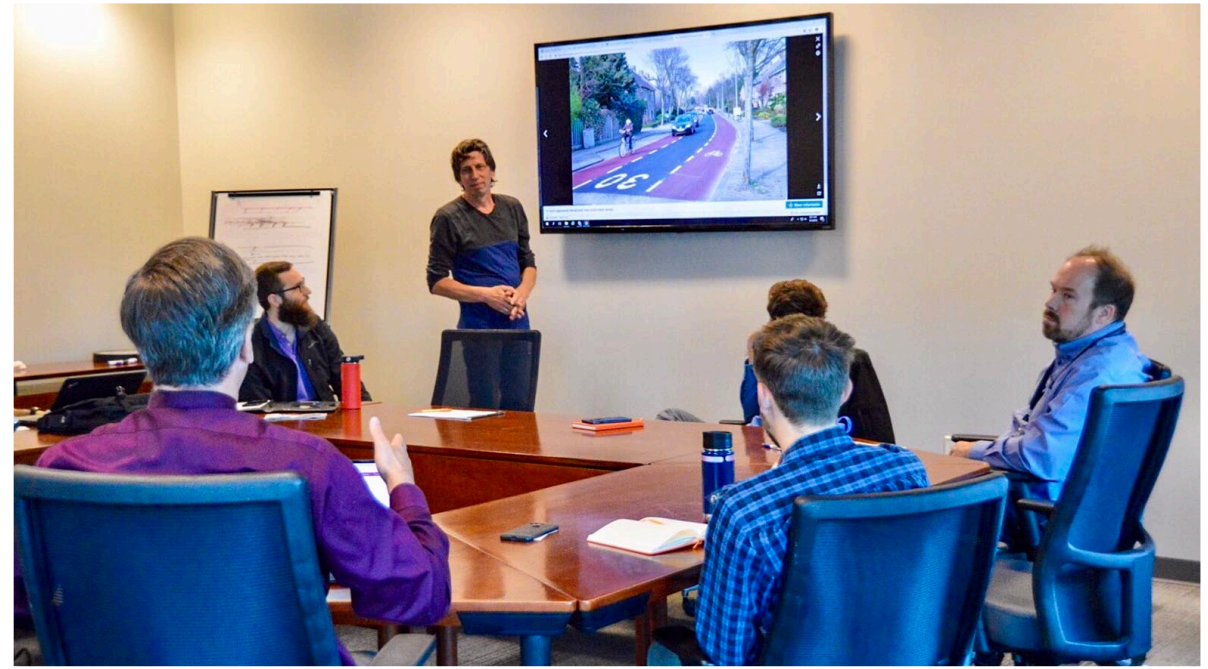
VelopA  
LET'S GO OUTSIDE

WHEELYLIFT

hogeschool  
Windesheim  
Dichter bij jou

wobs  
WARM ON BIKES

DUTCH  
CYCLING  
EMBASSY





PEDALING THROUGH PANDEMIC ◯➤◯

# FROM CAR TO PEOPLE ORIENTED





DON'T BE AFRAID TO EXPERIMENT ➤➤

# Delft

1984



## Requirement 1: Cohesion

- “You can cycle from anywhere to everywhere”
  - Network approach
  - All branches of are accessible and connected
  - A *cohesive* whole
- Grid size (300-500m)
  - Avoids detours
  - Avoids too many crossings
- Cohesion with other networks
  - Public transport: in NL 40% of train users uses their bicycle as access mode
  - Park and bike facilities



➔ Start with a link, plan for a network!



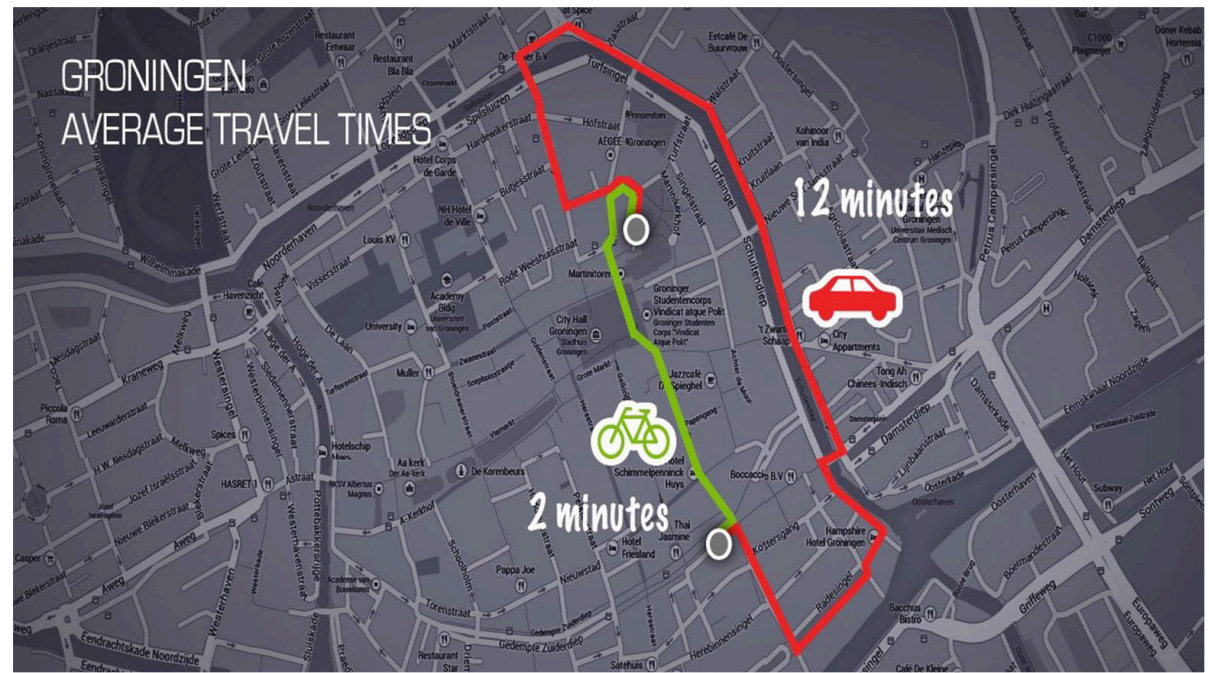
THINK AT THE NETWORK LEVEL ➔



# Road categorization



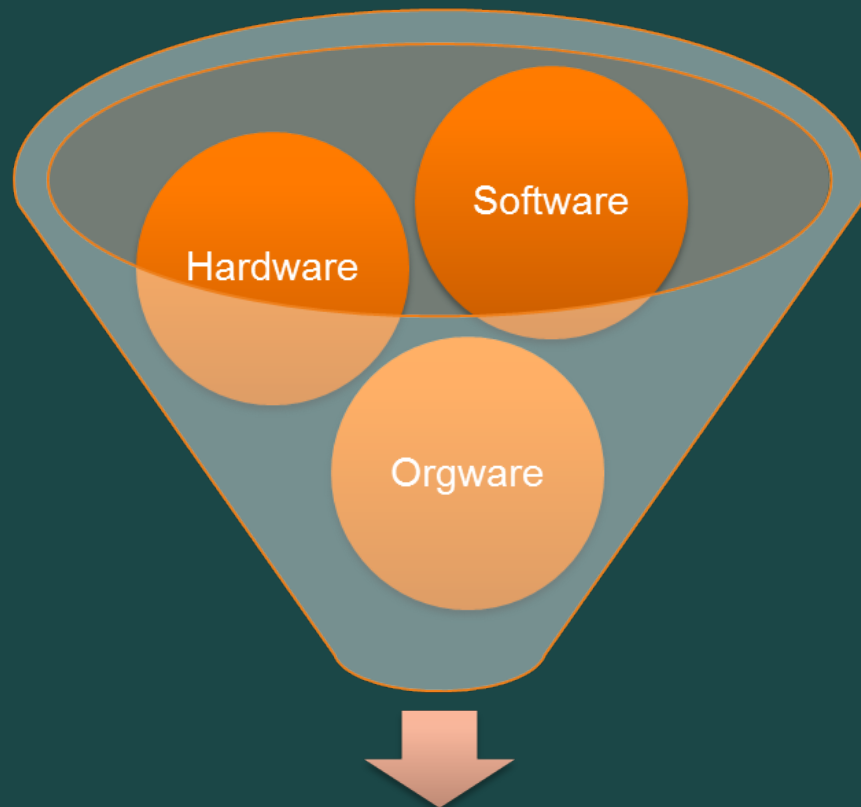
- 1. National / Regional through routes  
Speed limits 130/120/100/80km/h (80/75/62/50mph)  
**No cycling**
- 2. Local distributing – collector roads  
Speed limits 50km/h (31mph)  
**Physical or Visible separation**
- 3. Access streets / Places  
Speed limit 30km/h (18mph)  
**No separation needed**



EVERY BIKE PLAN NEEDS A CAR PLAN ➡

# HARDWARE, SOFTWARE & ORGWARE

A good strategy to make cycling a lasting component in the mobility mix of your city,  
is a masterplan built up out of:



**Hardware:** the material/physical necessities for cycling

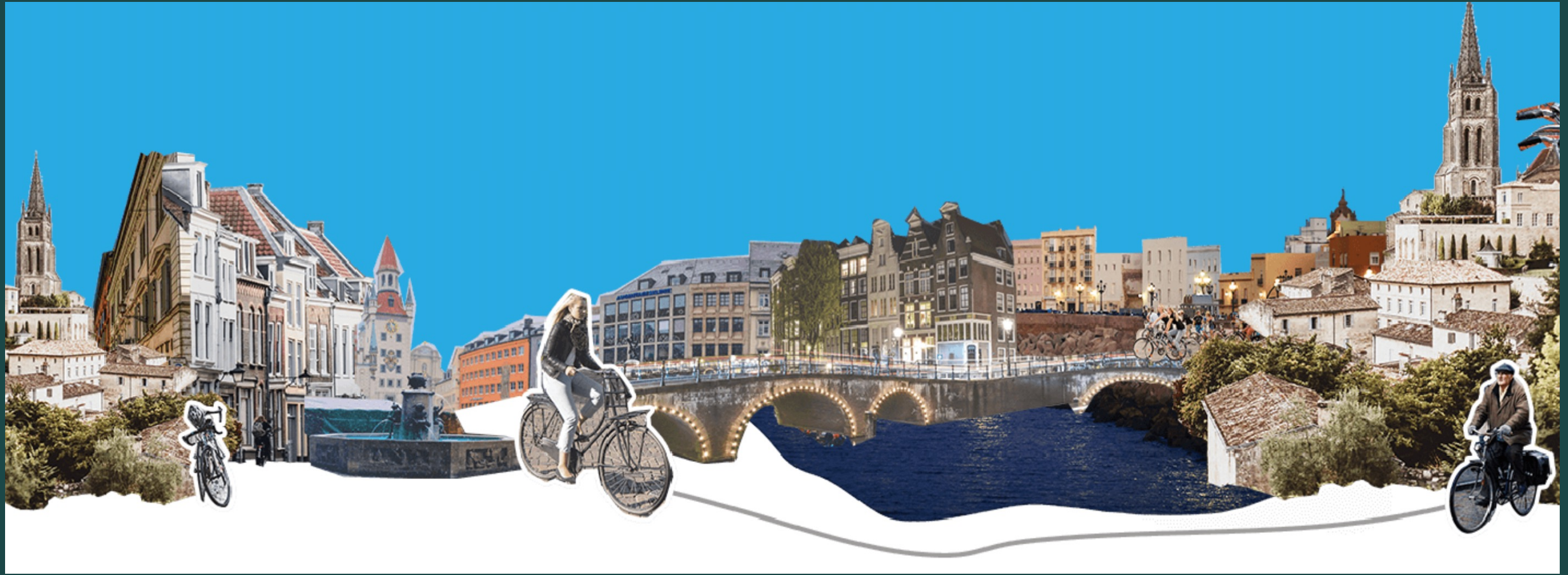
**Software:** the human side of mobility

**Orgware:** the cooperation process needed between all the actors

Bicycle inclusive mobility









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START →



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
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