

## Understanding the trip and user characteristics of the combined bicycle and transit mode (PPT)

Shelat, Sanmay; Huisman, R.; van Oort, Niels

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# Understanding the trip and user characteristics of the combined bicycle and transit mode

**Sanmay Shelat**  
**Raymond Huisman**  
**Niels van Oort**

Assistant professor public transport

Delft University of Technology



 @Niels\_van\_Oort

# Research objectives

## 1 To understand the bike and transit combination

*Benefits*

*Users*

*Potential*

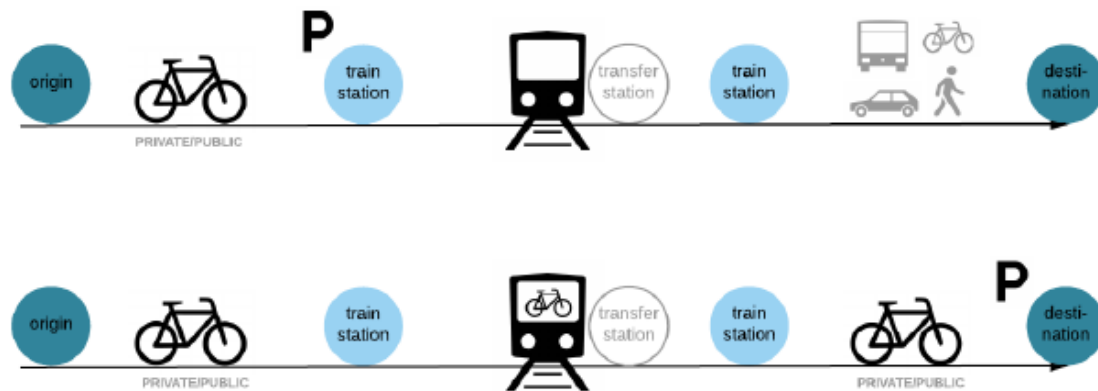
## 2 To design optimal bike and transit transport

*Routes, parking*

*Transit networks*

*Sharing facilities*

*Integrated design*

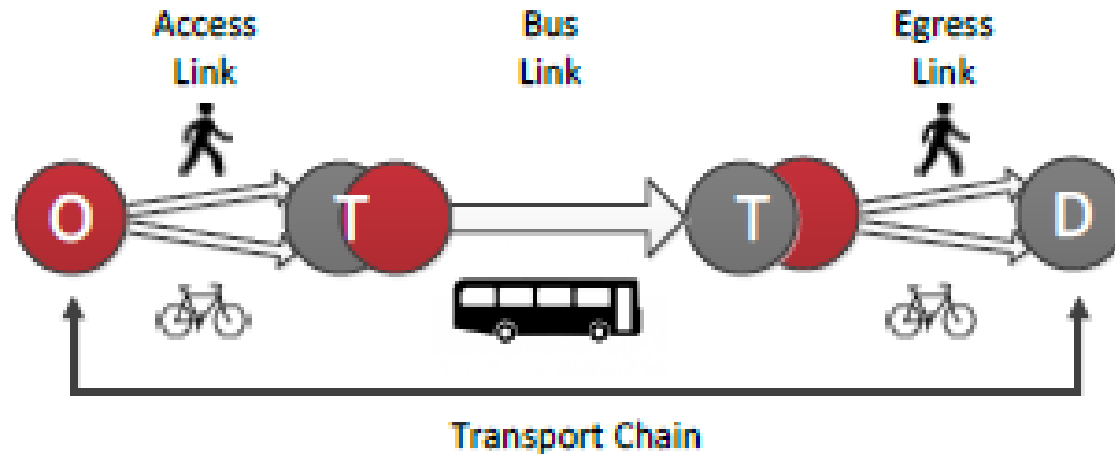








# Potential Bike and Transit



- Improving access and egress
- Improving door to door mobility
- Enhanced Public transport design



CONGESTION



CLIMATE



AIR QUALITY



HEALTH



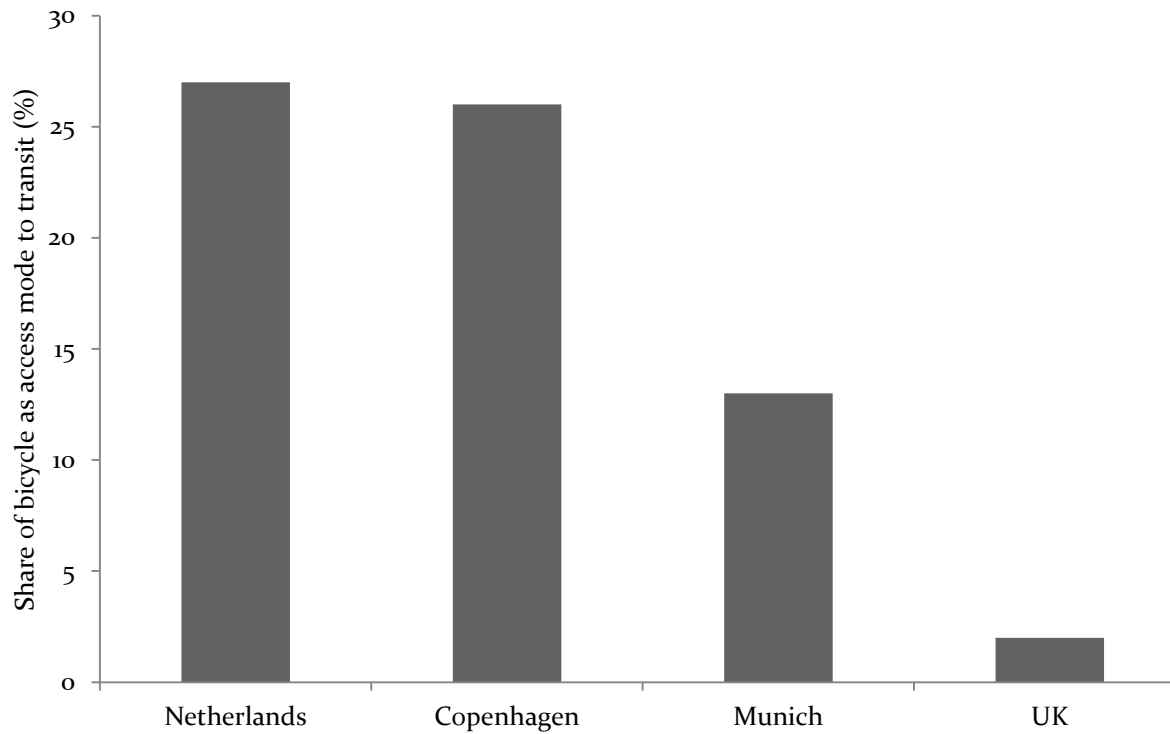
SAFETY



SUBSIDIES



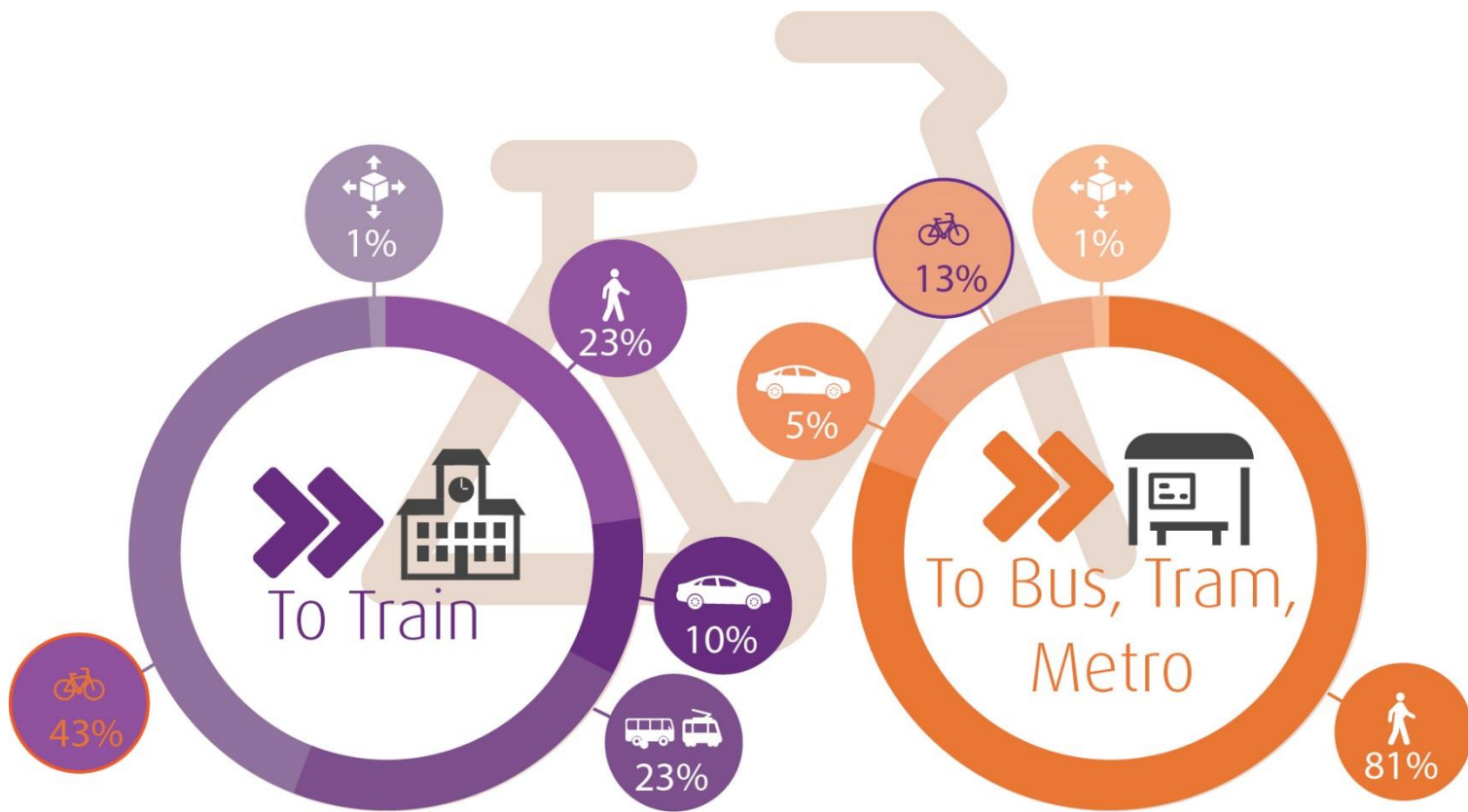
# Modal share



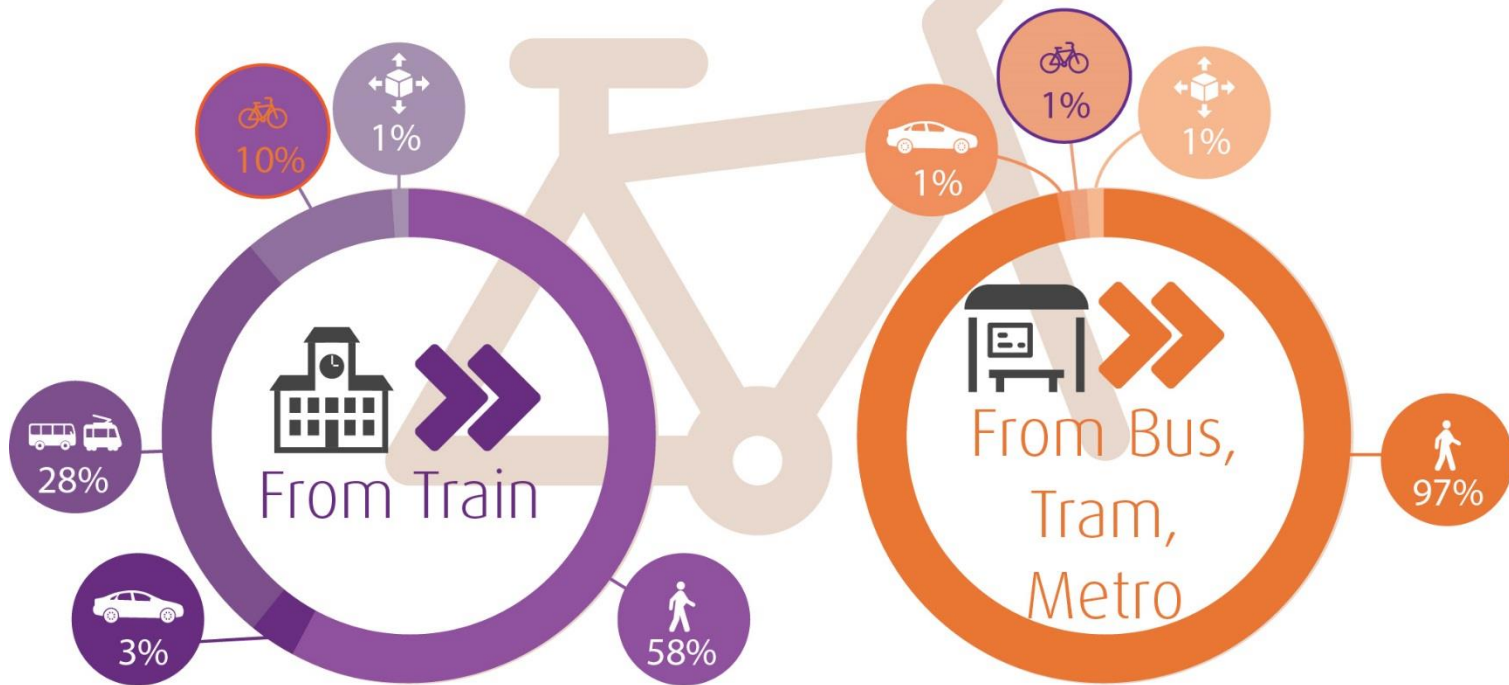


# Understanding the current situation

- Dutch OVIN survey
  - A one-day trip diary survey
  - Representative of the population of the Netherlands
  - More than 250,000 respondents
  - Nearly 700,000 trips over the course of 6 years (2010-2015)
- 
- Limited focus on bike-transit combination
  - Latent class cluster analysis



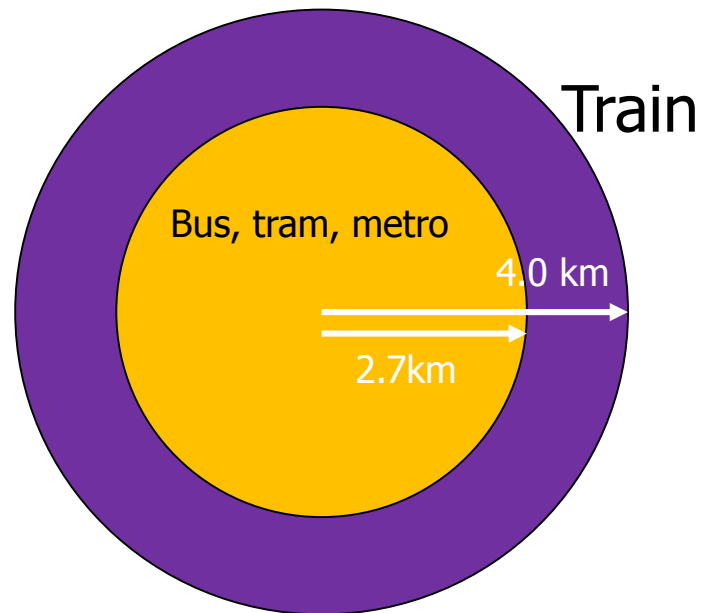
## Access transport



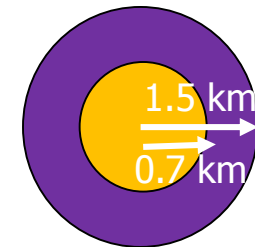
## Egress transport

# Bike acces and egress distances

## Acces

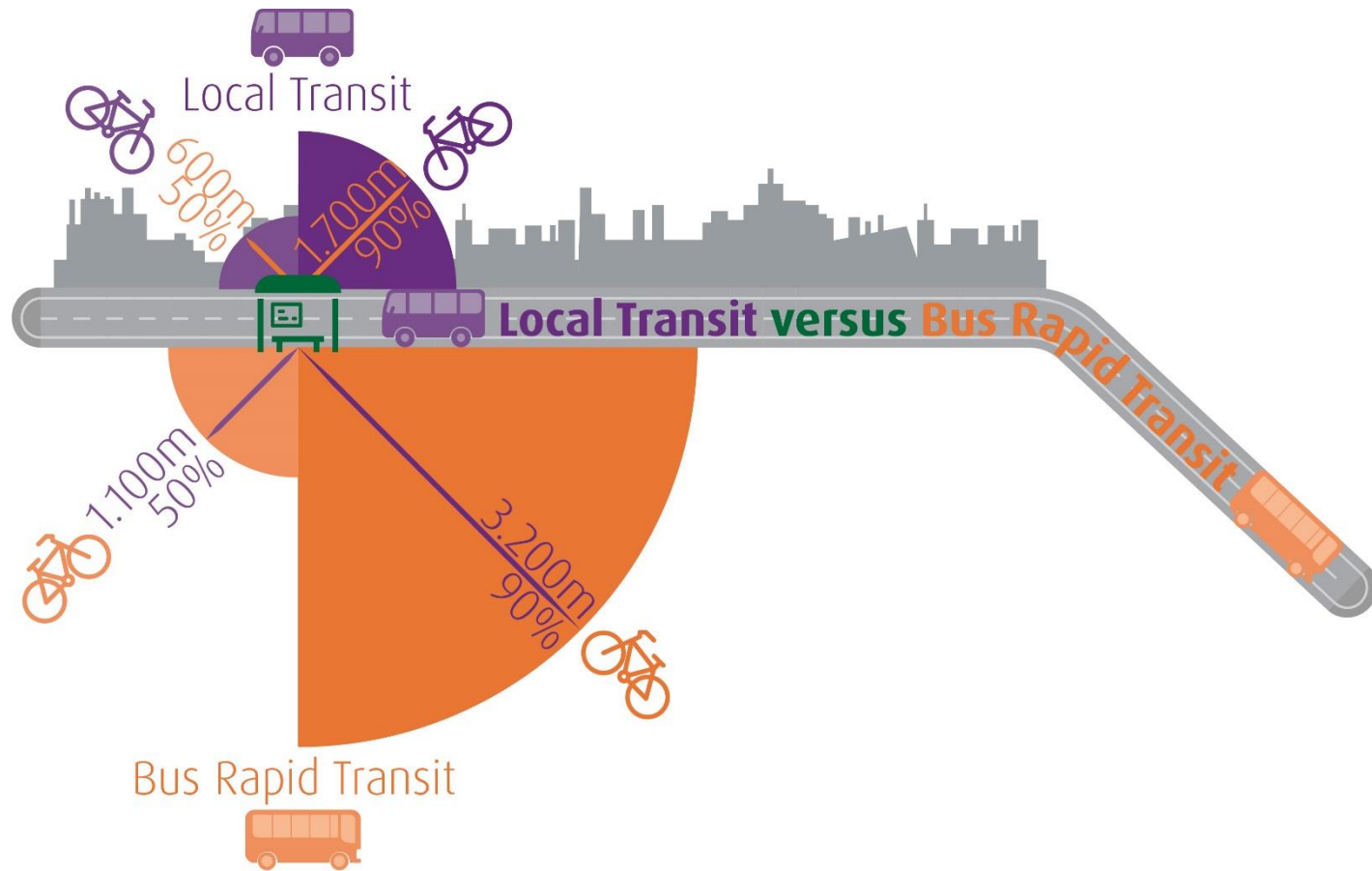


## Egress

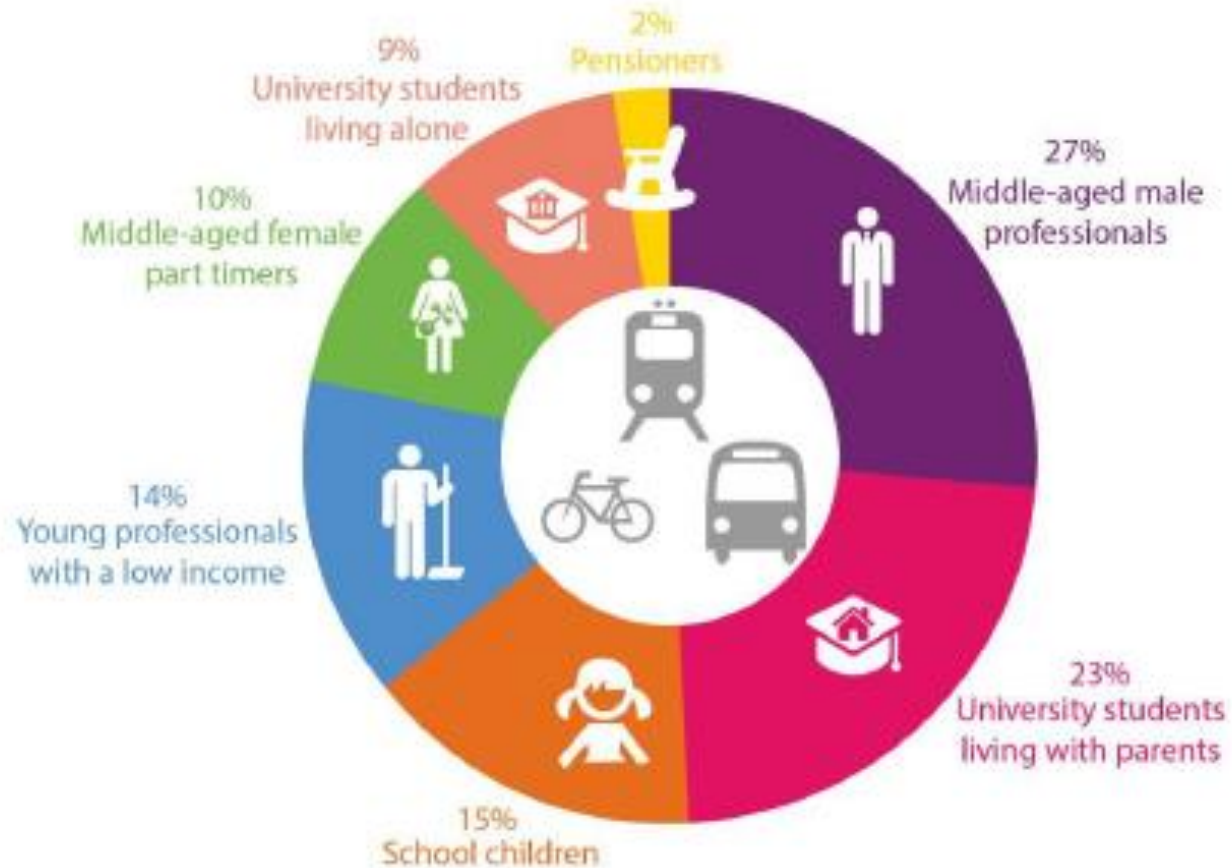




# Impact of PT quality on biking



# Users



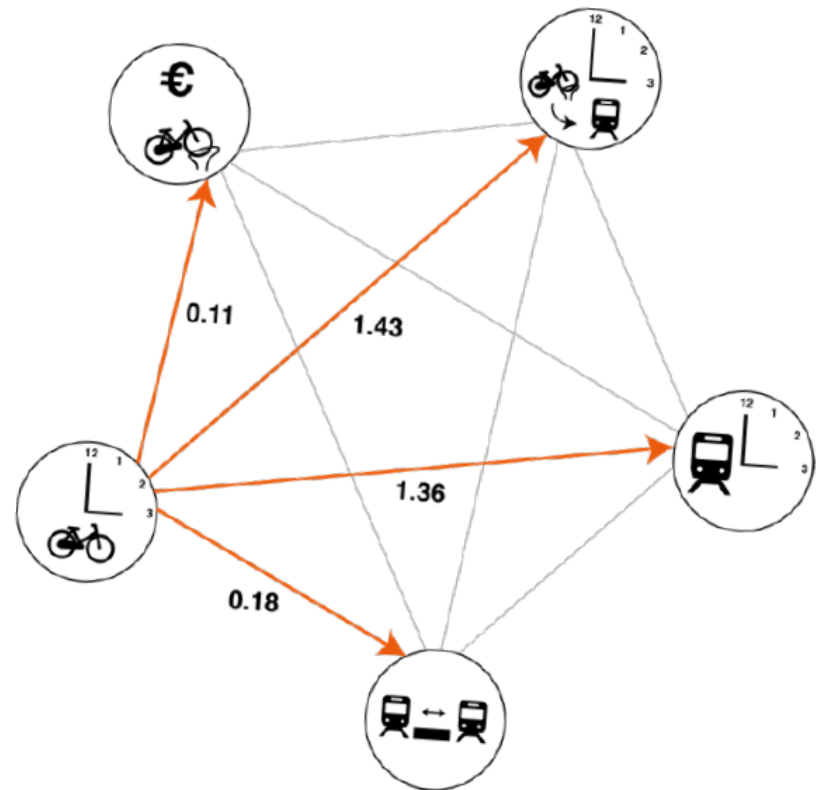
# Traveler preferences

## Bike time as a base

Examples:

One minute of bike time is equal to 1.36  
minute of train time

One minute of bike time is equal to €0.11  
(of parking price)



# Conclusions

- Bike and PT combines benefits of both
- Potential to improve door to door services
- Potential for enhanced quality and efficiency of PT
- Relatively new research area
- Many knowledge gaps
- Challenging: data acquisition and analysis
- To do: Part 2: (Improving) integrated design



# Literature

<http://nielsvanoort.weblog.tudelft.nl/>

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# Discussion: Current Bike and transit practice

How does biking as access and egress mode looks like in your country?

What are the characteristics (infrastructure, facilities, usage, modal split, etc.)

## Potential?

N.vanOort@TUDelft.nl

<http://nielsvanoort.weblog.tudelft.nl/>

