

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

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

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 @Niels_van_Oort

Research objectives

1 To understand the bike and transit combination

Benefits

Users

Potential

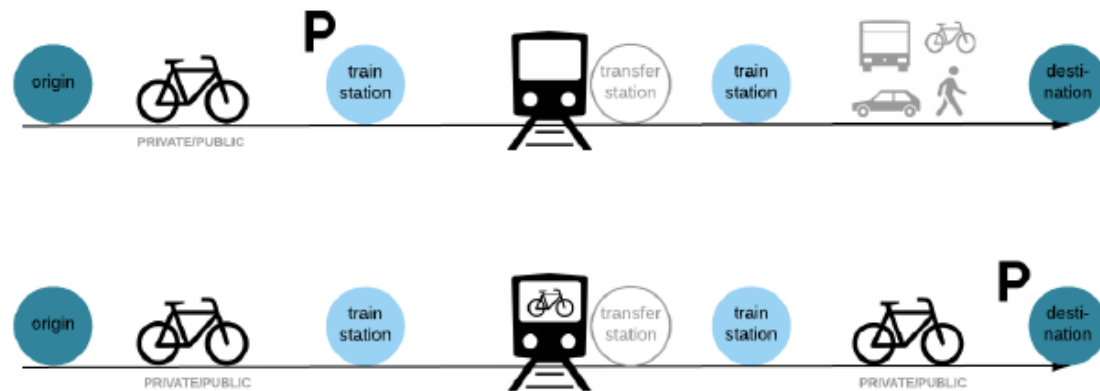
2 To design optimal bike and transit transport

Routes, parking

Transit networks

Sharing facilities

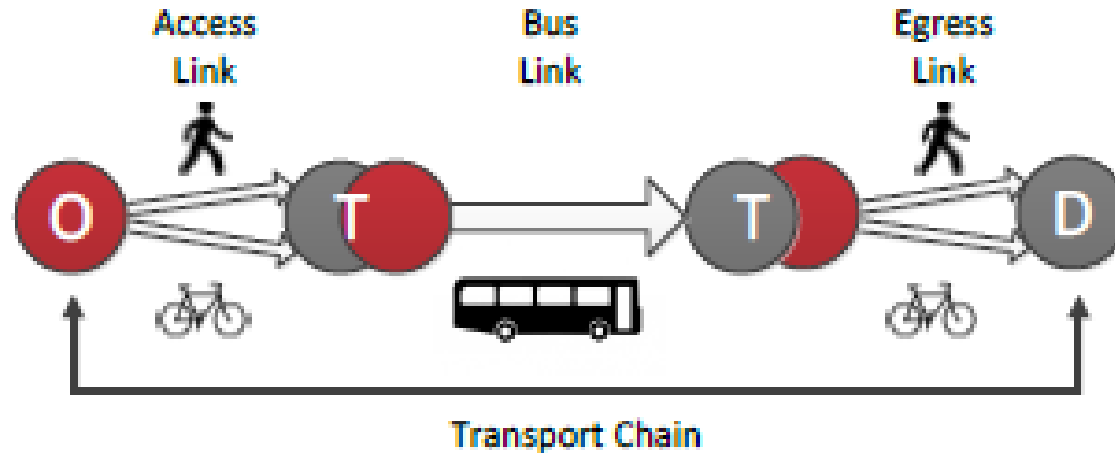
Integrated design







Potential Bike and Transit



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



CONGESTION



CLIMATE



AIR QUALITY



HEALTH

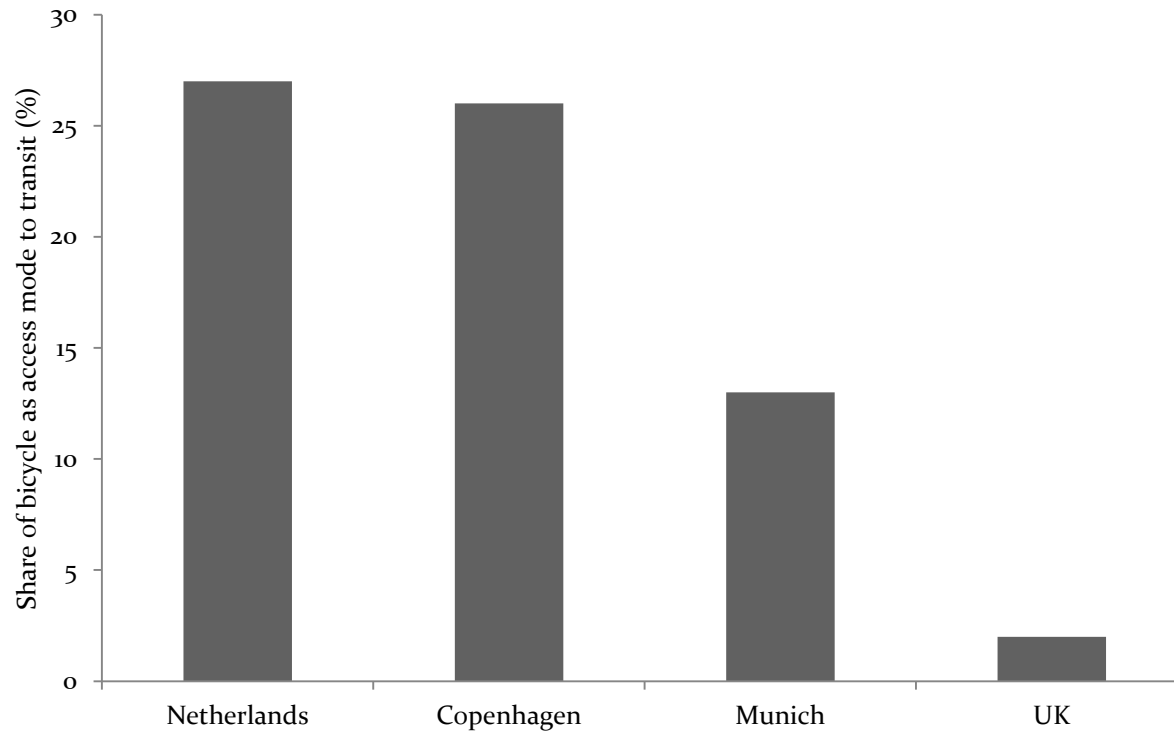


SAFETY



SUBSIDIES

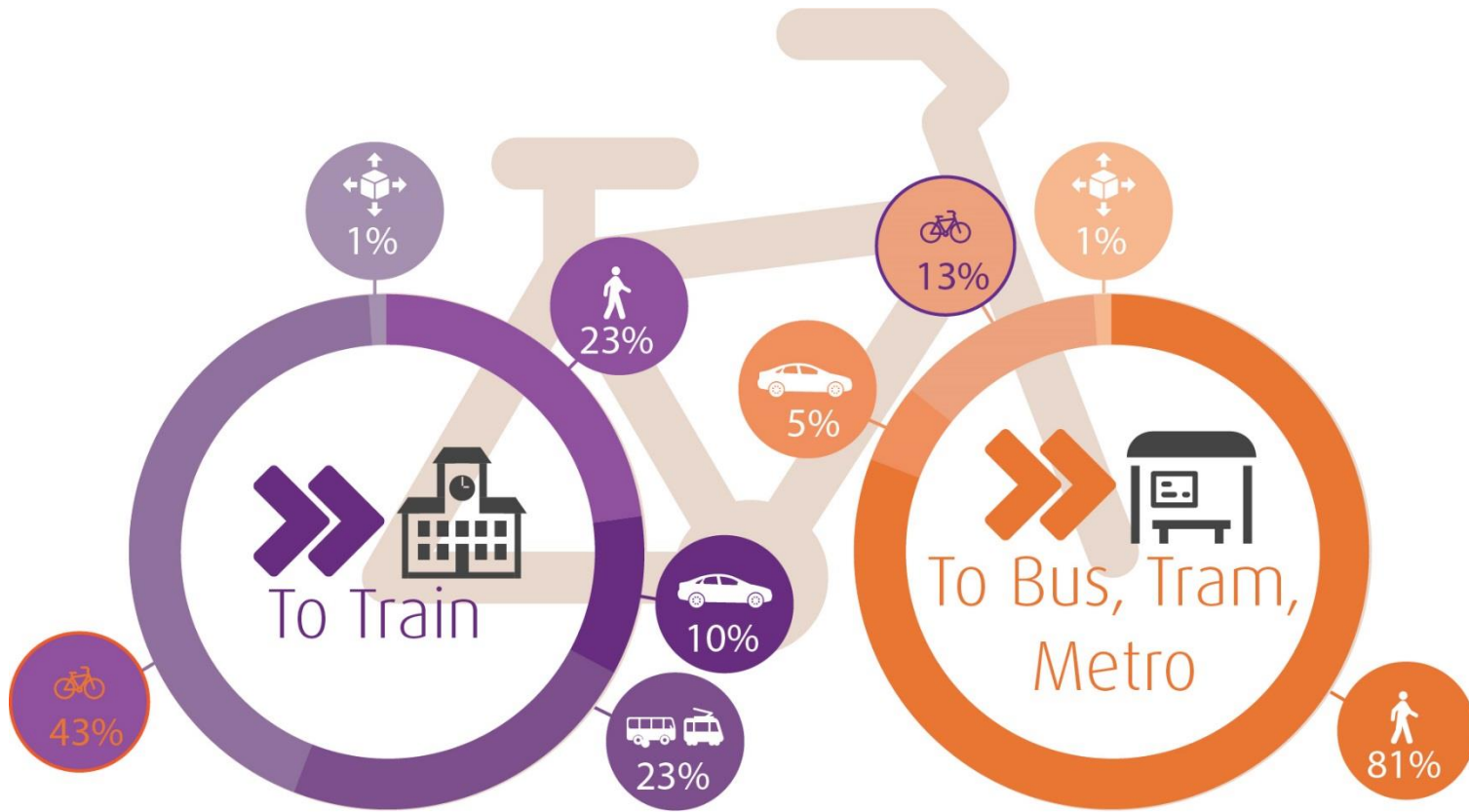
Modal share



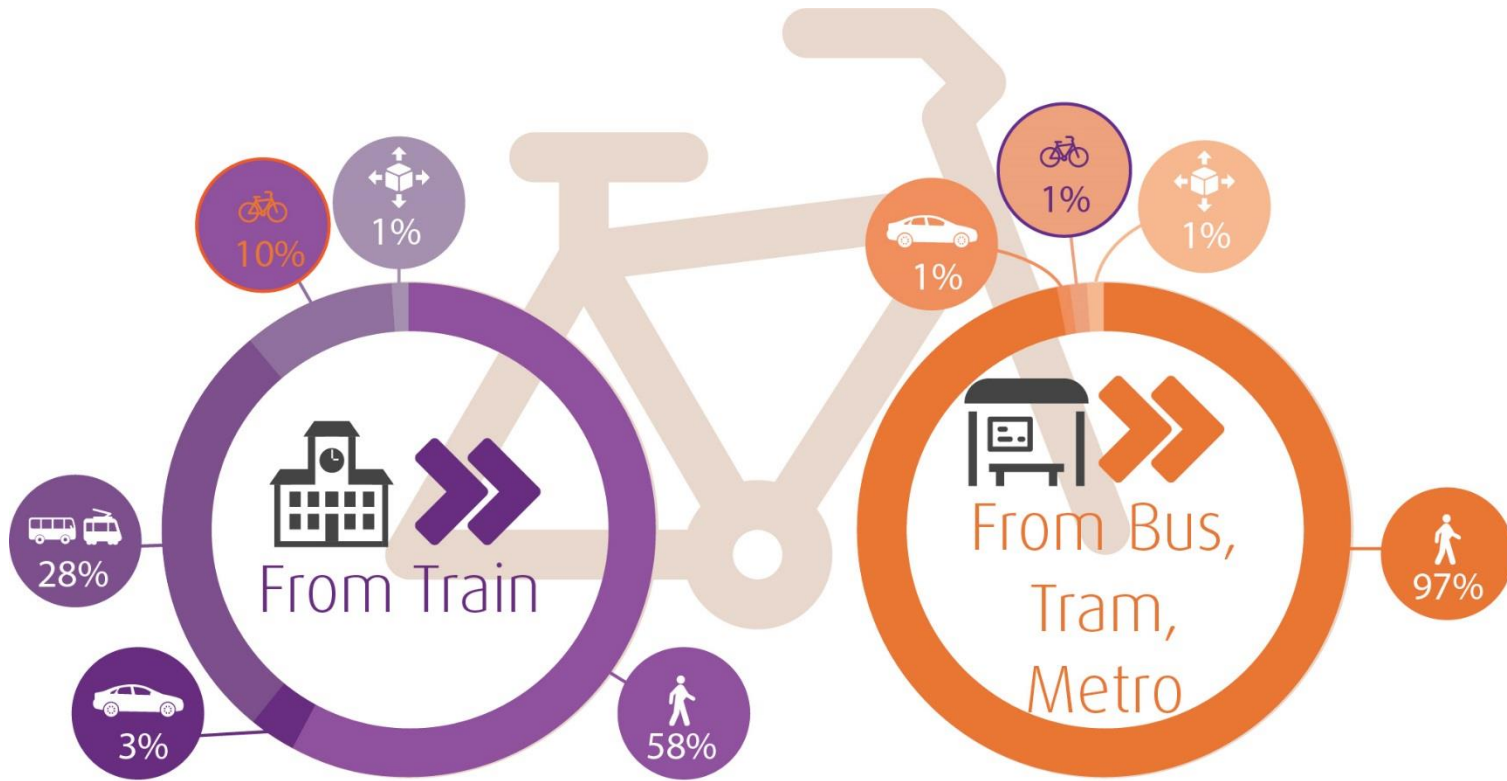
Understanding the current situation

- 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



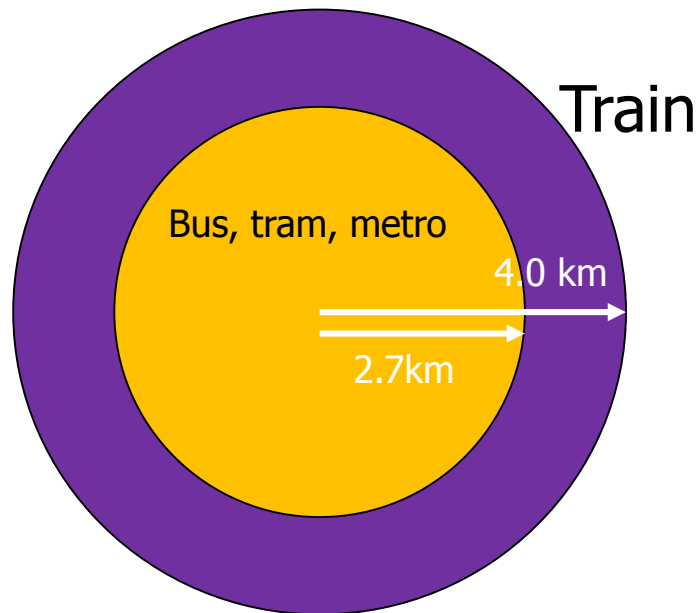
Access transport



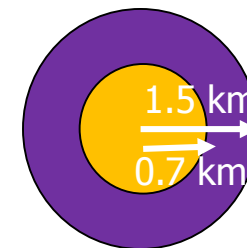
Egress transport

Bike acces and egress distances

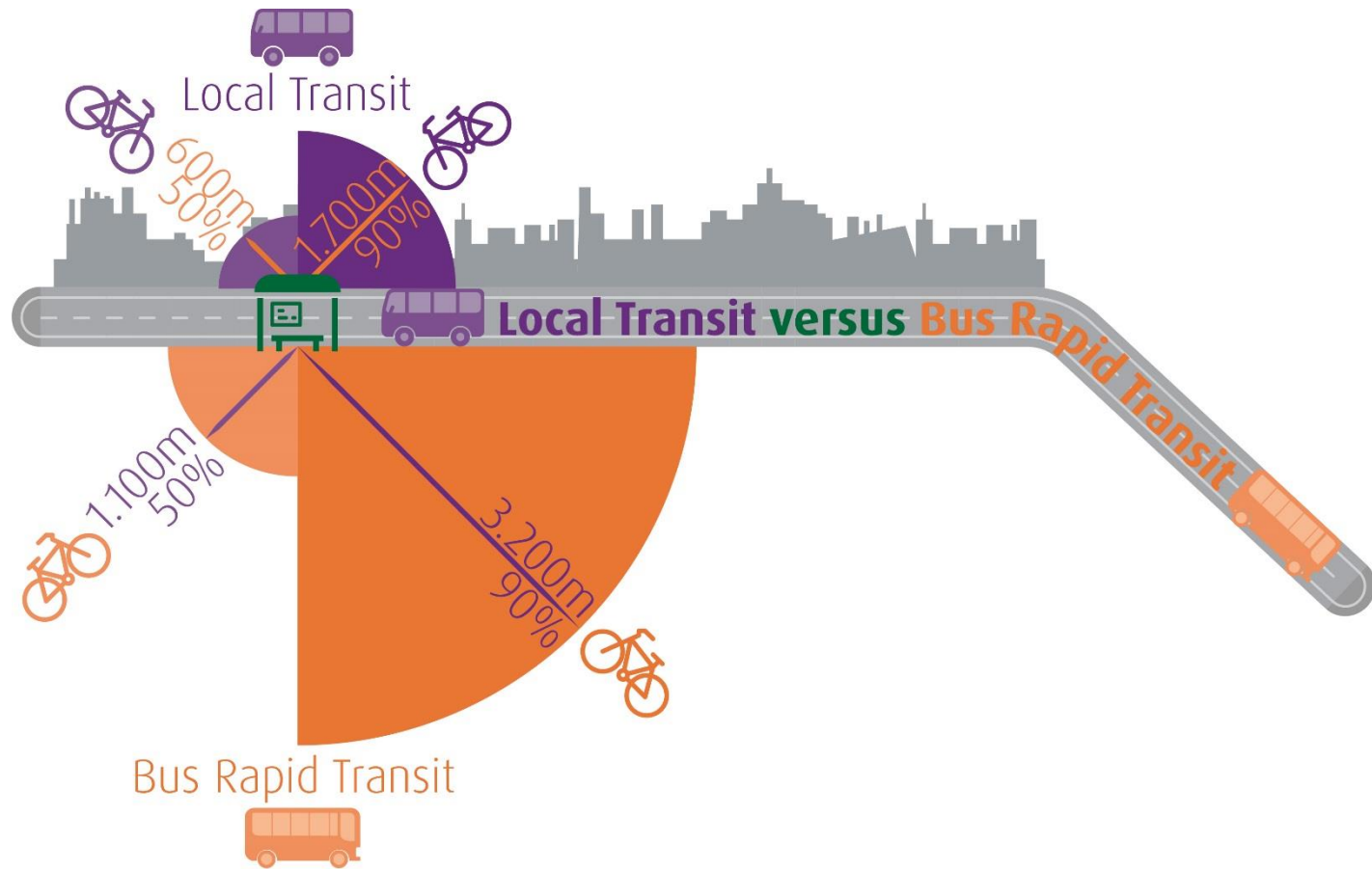
Acces



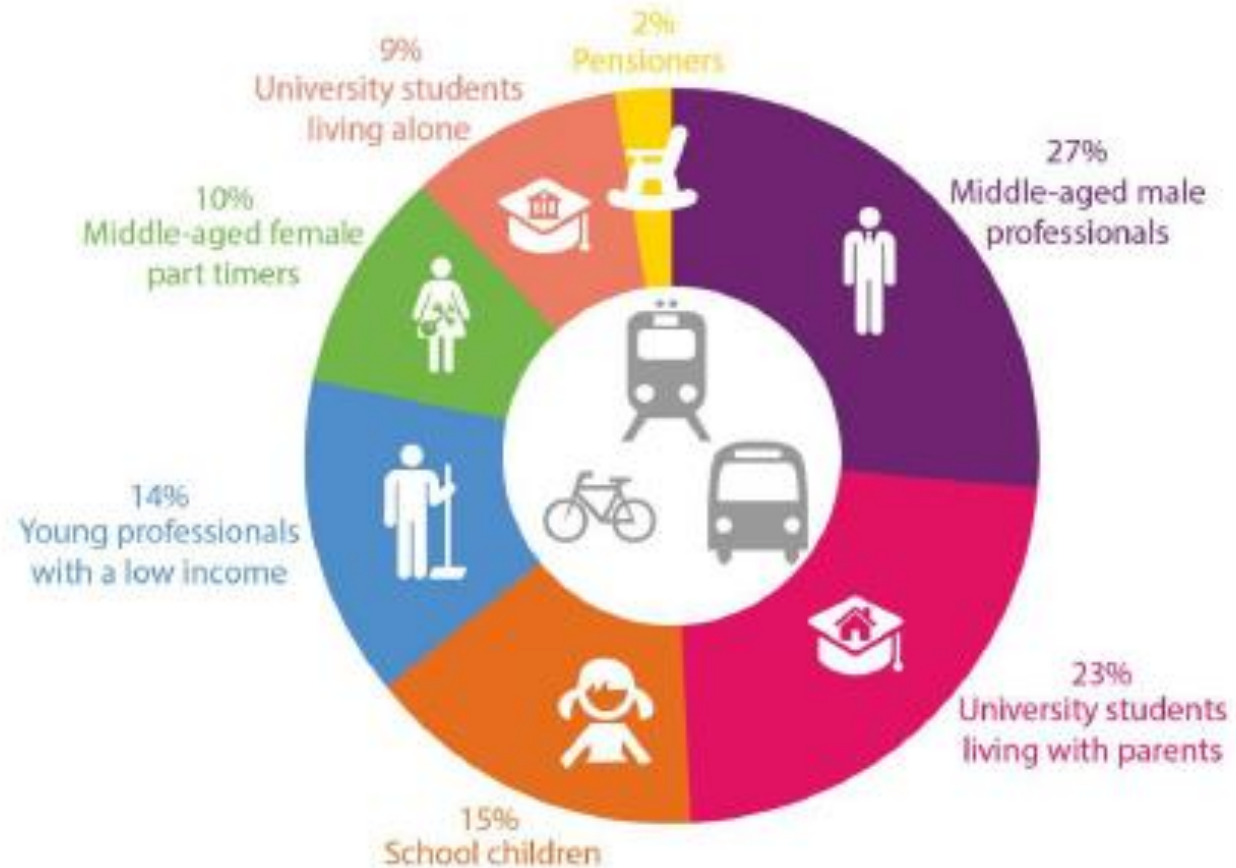
Egress



Impact of PT quality on biking



Users



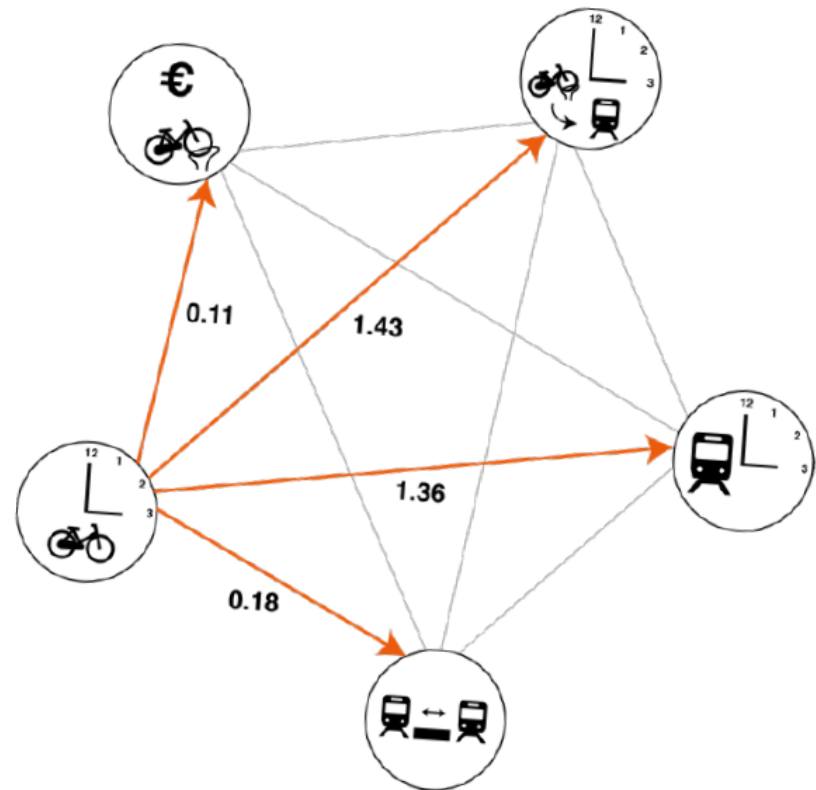
Traveler preferences

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

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