

Passenger preferences for (emerging) access/egress modes

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Access & Egress



- ❖ Home-end: **Bicycle > BTM > Walk...**
- ❖ Activity-end: **Walk > BTM > Bicycle...**

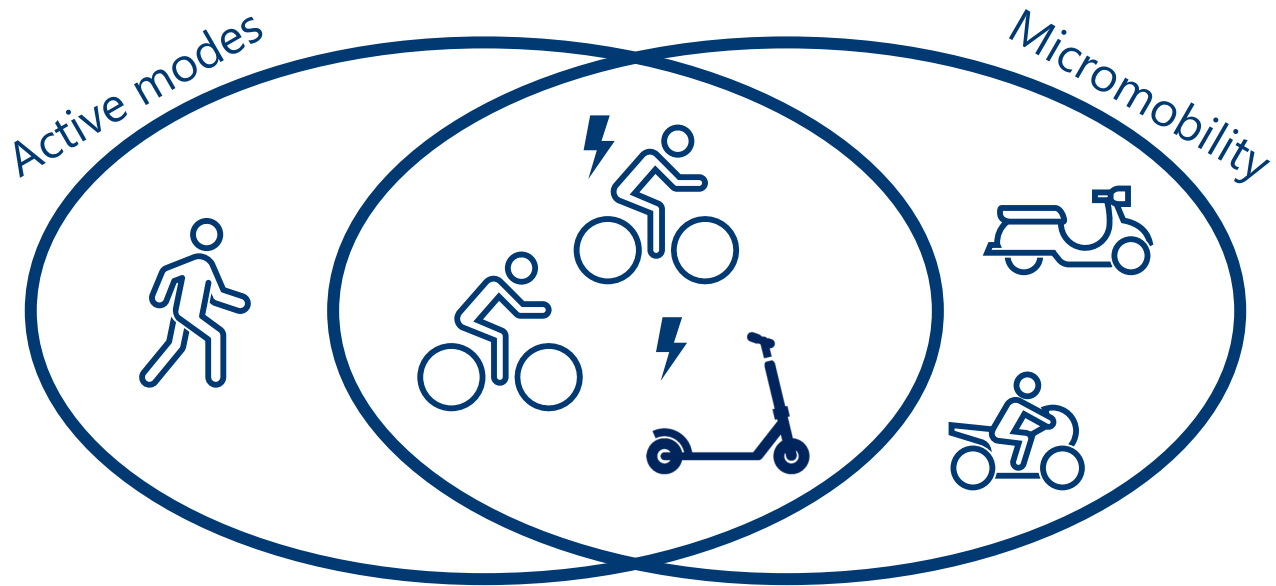
- ❖ Home-end trips tend to be longer
 - ◇ Average home-end trip 3.8km
 - ◇ Average activity-end trip 2.7km

- ❖ **5.3km** Nearest train station
- ❖ **10.8km** Important transfer station

Micromobility



- ❖ Sharing economy revolution
- ❖ Overlap with active modes

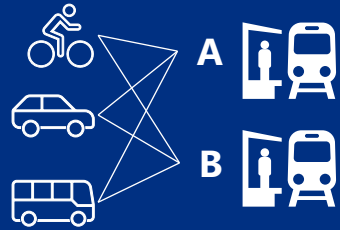


Overview

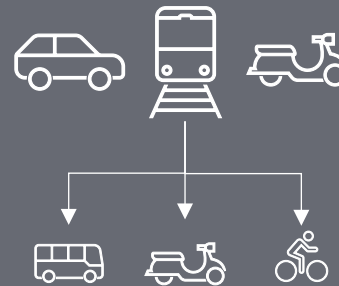


Access/Egress

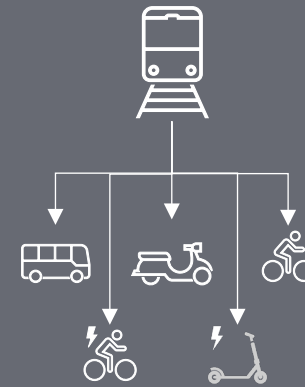
Study 1



Study 3



Study 4



Micromobility

Study 2

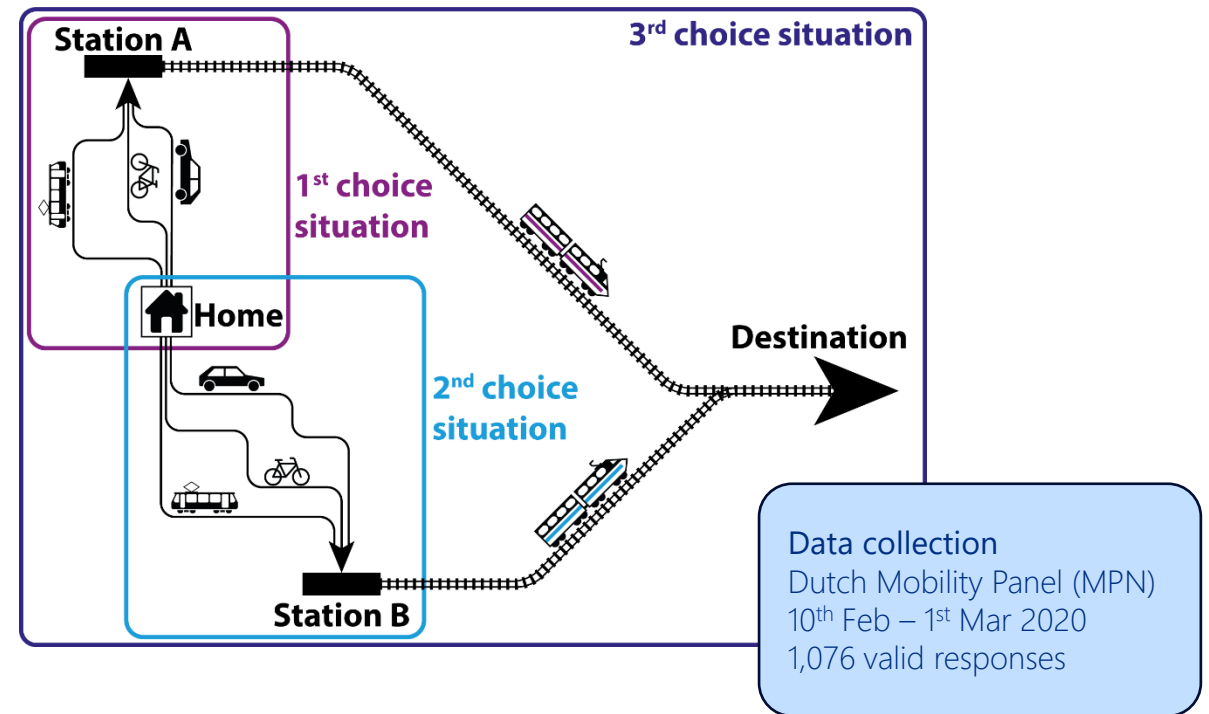




Study 1: Setup

Geržinič, Cats, van Oort,
Hoogendoorn-Lanser &
Hoogendoorn, 2023
Transportmetrica A

❖ Access mode & Station choice





Study 1: Results



	High WtP	Low WtP	
Mode-first	21.6%	30.2%	51.8%
Station-first	25.9%	22.3%	48.2%
	47.5%	52.5%	

- ❖ In-vehicle time ratio **1-1.5x**
 - ◇ Access leg / Main leg
- ❖ Parking search time **1-3x**
 - ◇ Compared to main leg IVT
- ❖ Transfer
 - ◇ **€3.50 - €5.00**
 - ◇ **15min - 23min** of main leg IVT



Study 2: Setup

Loudon, Geržinič, Molin & Cats, 2023
Journal of Urban Mobility



❖ Running an errand in an urban area

Set 3: Imagine that the shared electric moped is not available. Which mode would you choose instead?

 CAR	 BICYCLE			
Travel time (one-way, excl. search- and egress time)	15 min	Travel time (one-way)	30 min	I would not make this trip
Parking costs per hour	€5,-			
Search time for parking spot	0 min			
Egress time (from car to destination)	0 min			

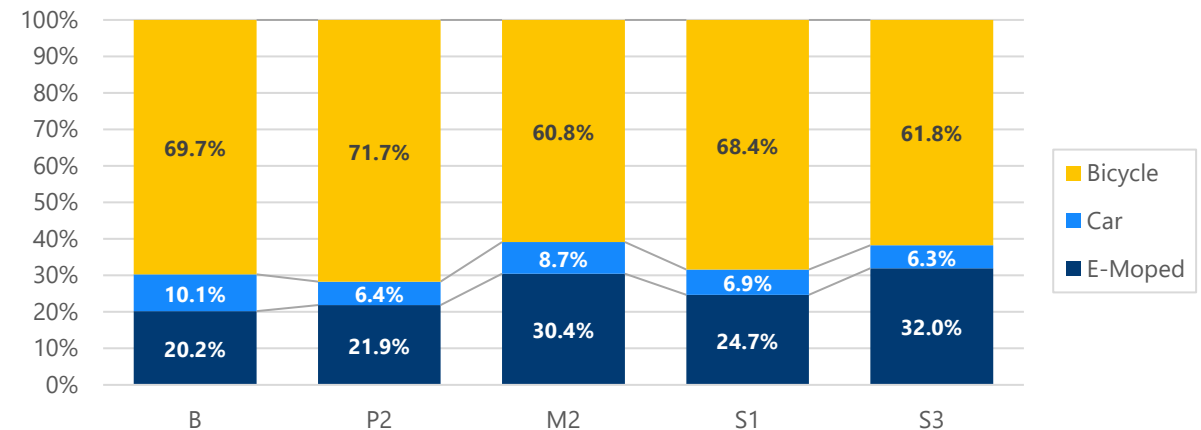


Study 2: Results



❖ Previous experience with mopeds has a substantial impact on attribute perception

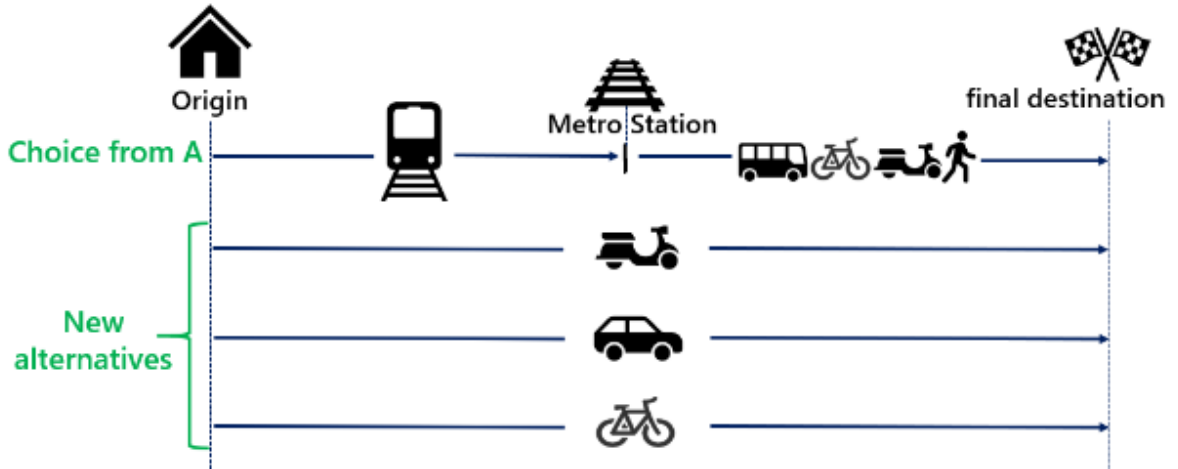
- ◇ Access walking time **15€/h vs. 31€/h**
- ◇ Return availability **33€/h vs. 88€/h**
(non-linear, increasing marginal disutility)



Study 3: Setup



❖ Main & Egress mode choice

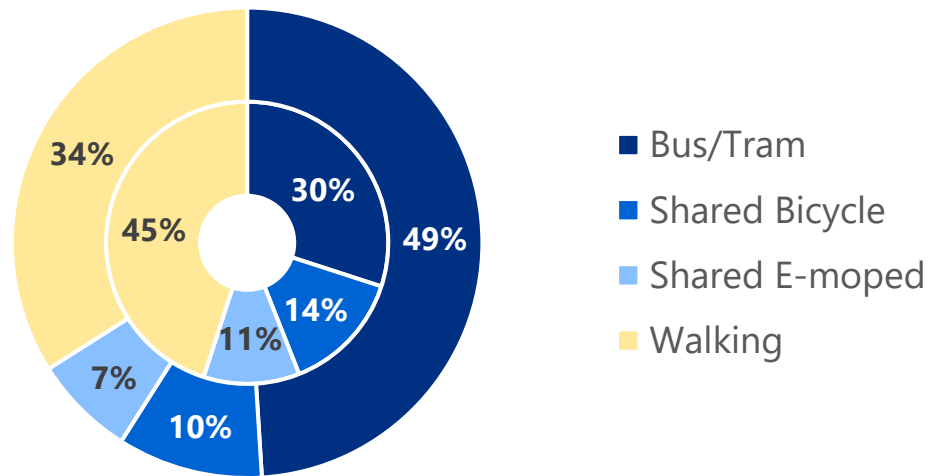


Study 3: Results

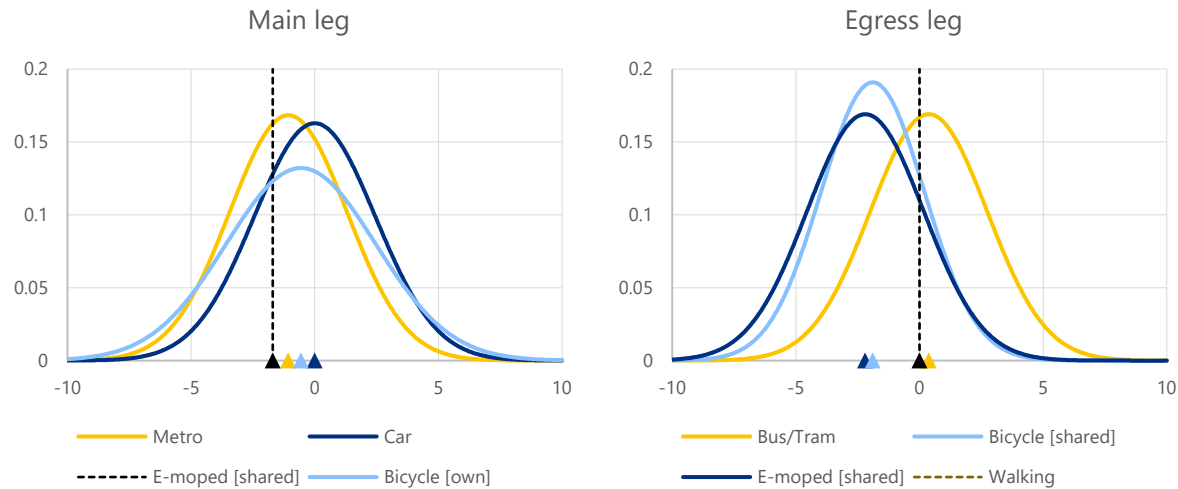


❖ Differences in egress mode choice

◇ All travellers vs. those who actually chose metro



Study 3: Results



❖ Perception of travel time and cost

- ◇ Similar time perception
- ◇ Cost perception **3.8x more negative** on egress leg



Study 4: Setup



Je hebt al
45 minuten met
de trein gereisd

Je gaat op
bezoek bij
vrienden/familie



15°C
droog



alleen
op reis



rugzak
of tas



Study 4: Setup



Choice task #1

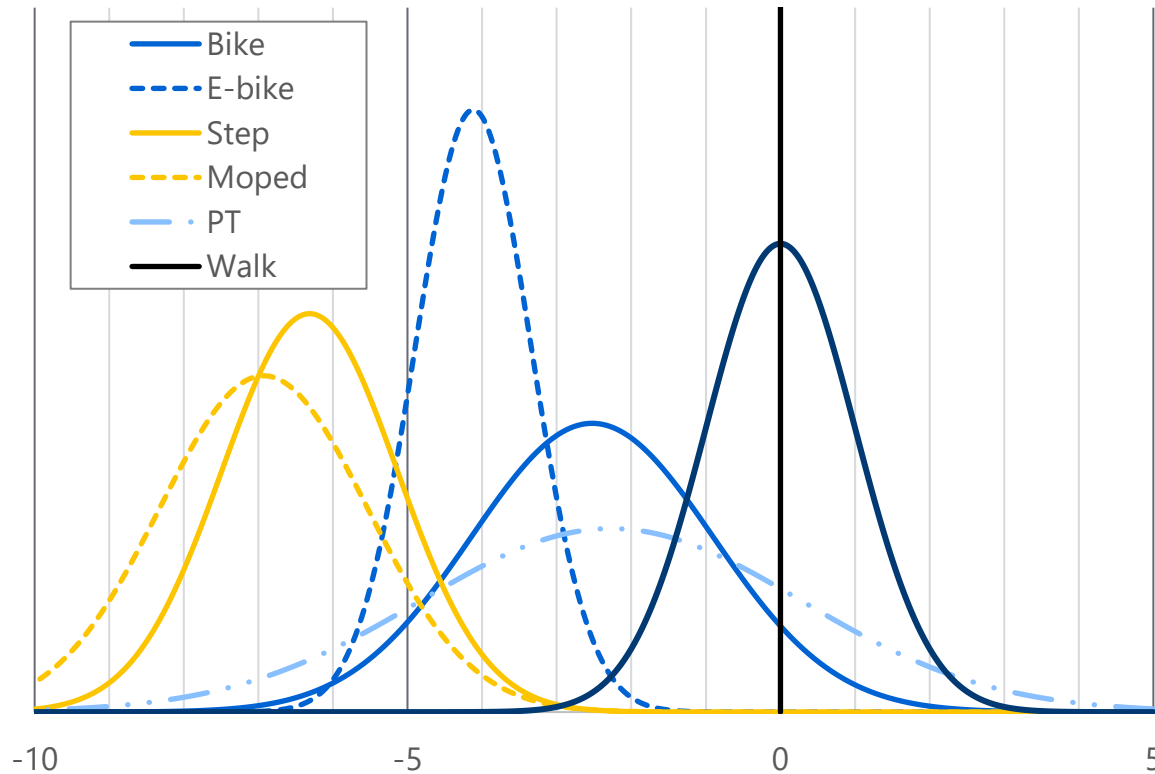
Fiets	E-bike	E-step	E-scooter
 2min lopen	 6min lopen	 10min lopen	 6min lopen
 Centrale stalling	 Centrale stalling	 Bemande stalling	 Vrij stallen
 Enkele reis	 Retour reis	 Retour reis	 Enkele reis
 16min rijden	 20min rijden	 12min rijden	 12min rijden
 €4.00	 €4.00	 gratis	 gratis

Choice task #2

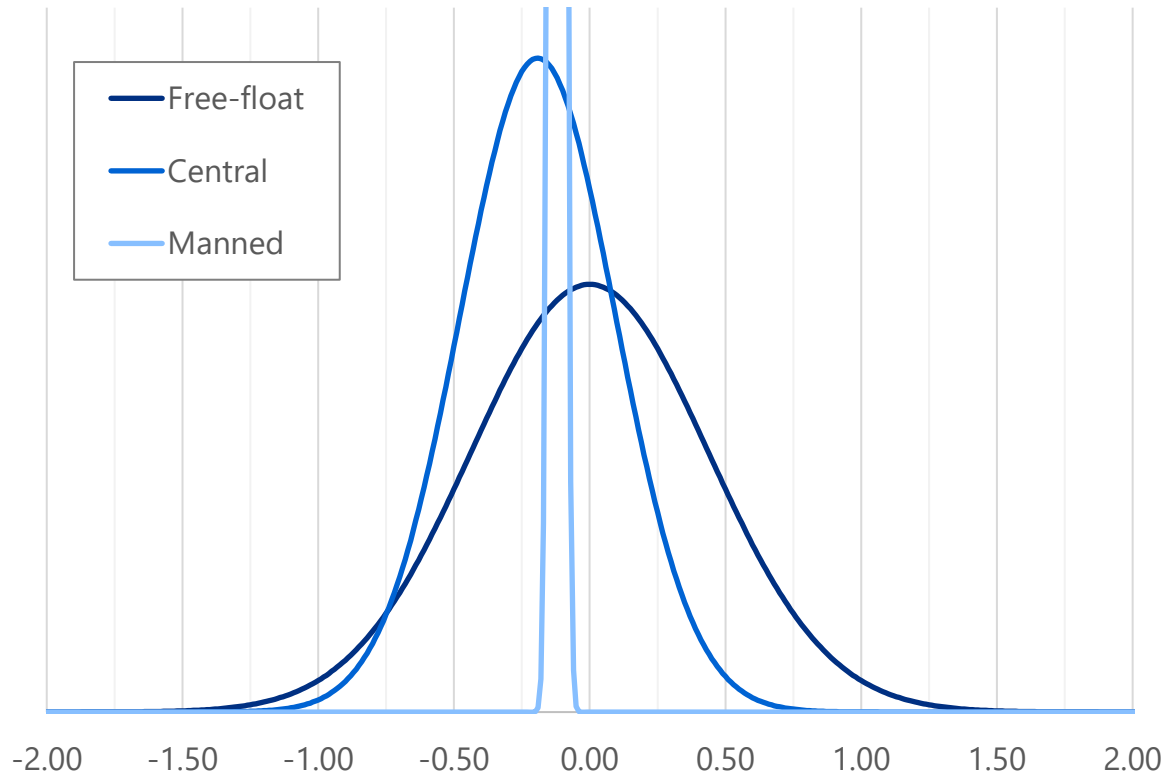
E-bike	OV	Lopen
 6min lopen	 6min lopen	 60min lopen
 Centrale stalling	 2min wachten	
 Retour reis		
 20min rijden	 12min rijden	
 €4.00	 €4.00	



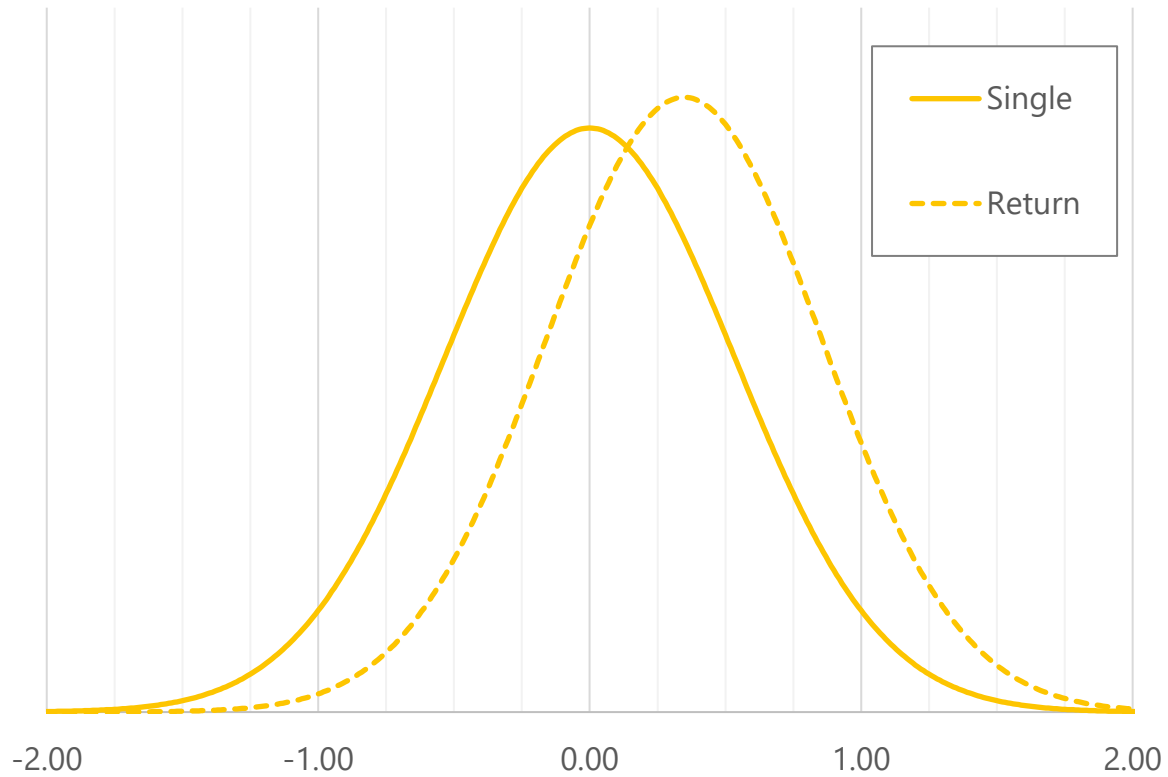
Study 4: Results



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Study 4: Results



Conclusions



Past experience is a key influencing factor on adoption likelihood

- ◇ Familiar modes are strongly preferred



Market segmentations show similar results

- ◇ Large share open to using it
- ◇ ~25% are sceptical
- ◇ Many factors have highly different perceptions between groups



Careful selection of policy measures to achieve desired result

Questions?



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<http://smartptlab.tudelft.nl/our-group/nejc-gerzinic>

