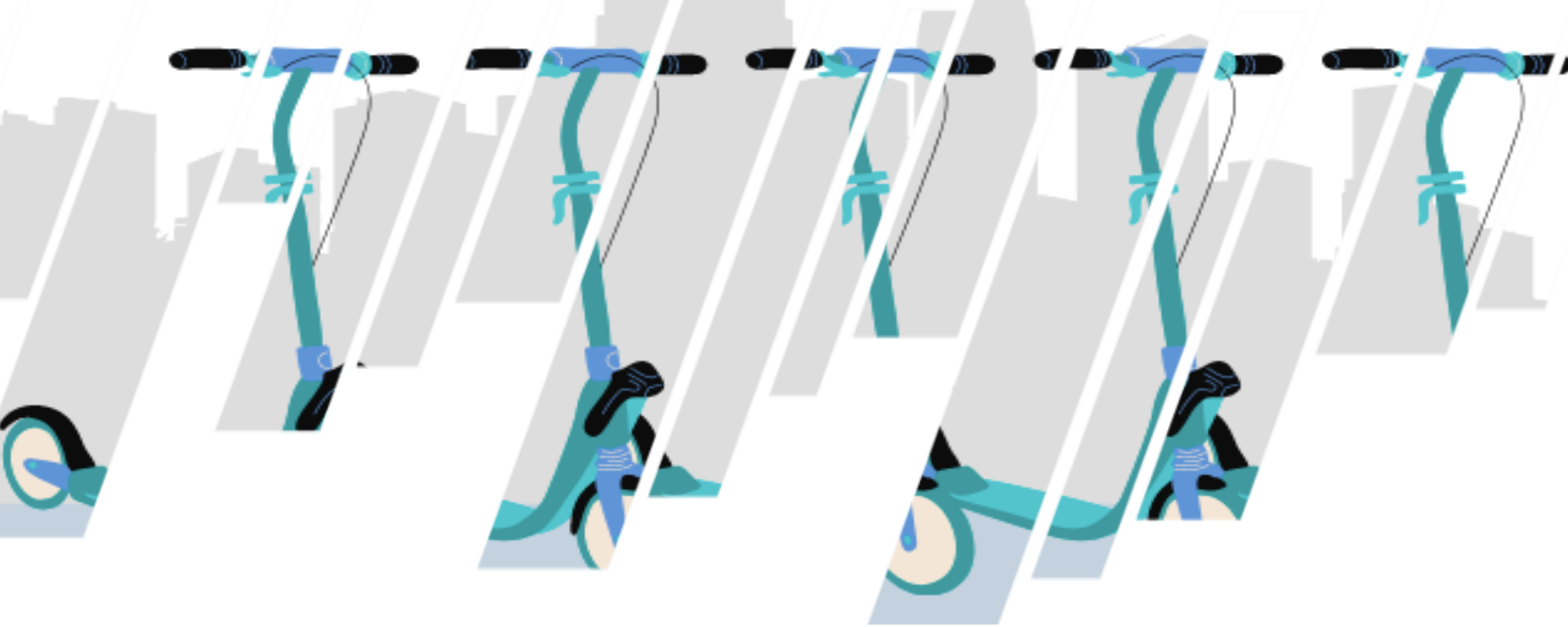

From 4 to 2 wheels: The impact of e-scooters on car reduction and behaviour change in Norfolk

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MOBI-MIX

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Why a new methodology to study shared mobility?

- Cities can make or break shared mobility implementation
- Companies often ask for favorable treatment (subsidies, parking permits, EVs charging stations)
- Many municipalities seem reluctant to jump on board
  - Private companies use public space (coexistence issues & essentially free advertising)
  - Lack of data & mixed evidence

→ wider social benefits of shared mobility are often still unclear

Support for evidence-based decision-making & policy formulation

Sequential method → providing insights at each project phase

Exploratory, ex-ante and ex-post impact evaluations (causal inference)

Questions we can help cities answer

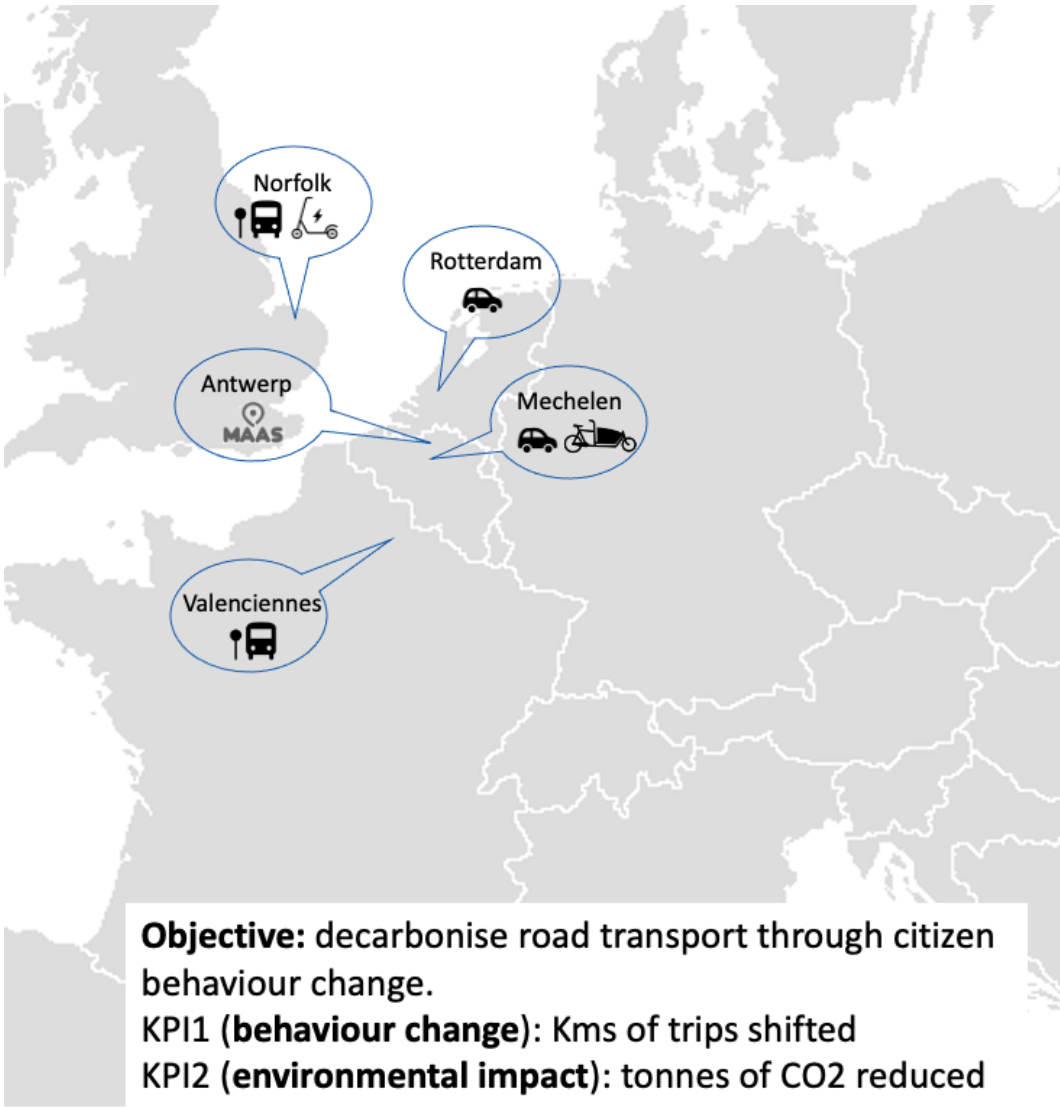
- How many users will join a specific shared mobility service?
- How many will shift from different transport modes?
- Should we promote shared mobility? (social benefit)
- Who should we target to achieve certain policy goals?

MOBI-MIX: exploring shared mobility & MaaS

- 2020 – 2022
- 5 cities
- €3m

Solutions trialed

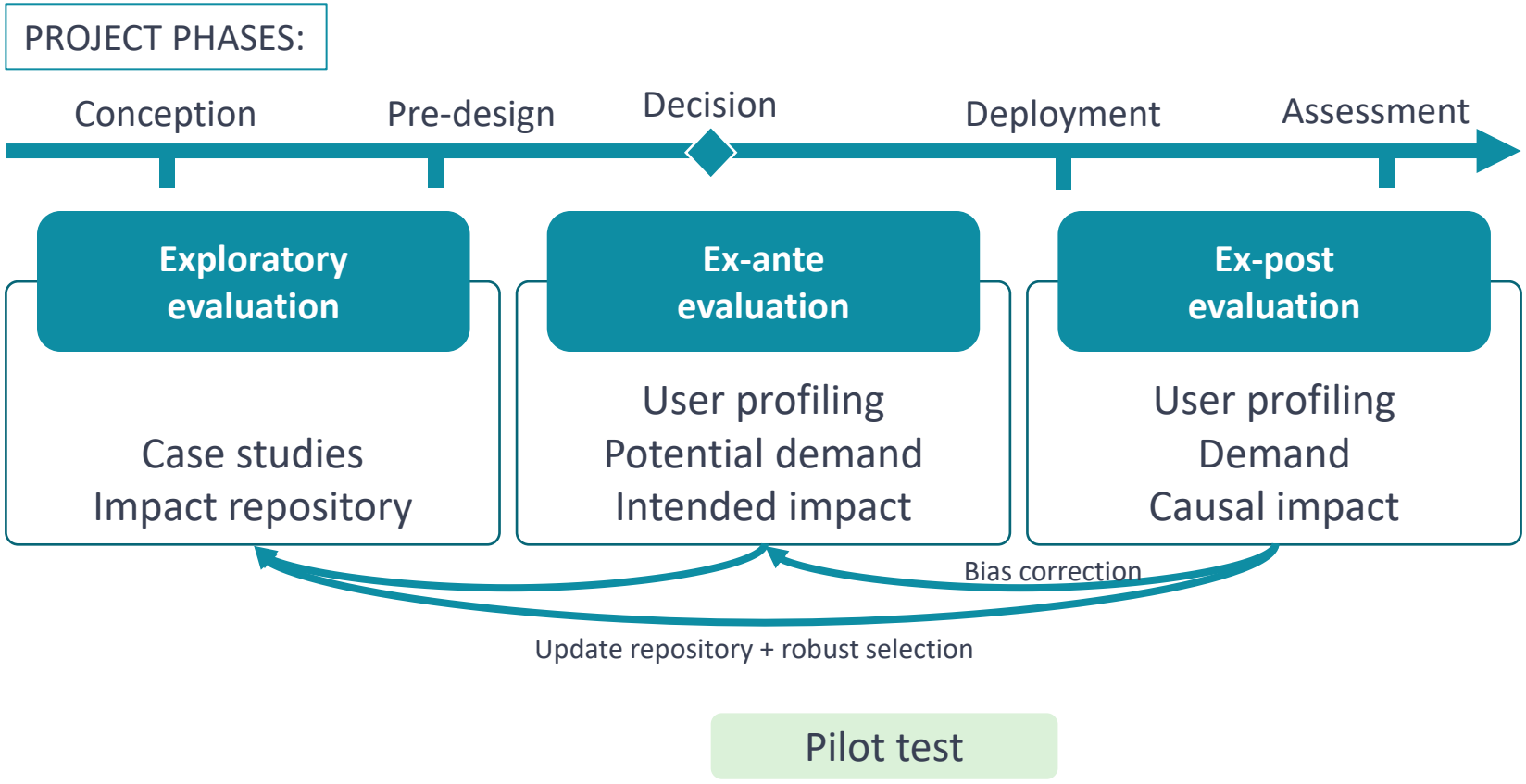
- Shared e-scooters
- Shared e-cargo bikes
- Shared e-cars
- MaaS
- Mobility hubs
- Universal basic mobility



Objective: decarbonise road transport through citizen behaviour change.
KPI1 (**behaviour change**): Kms of trips shifted
KPI2 (**environmental impact**): tonnes of CO2 reduced

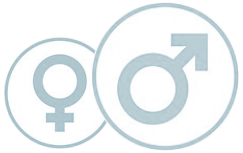
Methodology

How can we help cities along the pilot implementation decision process?



Who would join a shared e-Scooter service?

GENDER



+17%

AGE

26 – 40 y/o

41 – 65 y/o

66+ y/o

18 – 25 y/o

= **-15%** **-42%**

MOBILITY PATTERNS

= **+13%** **=** **+9%**

Veh-km travelled per week using each mode
(st.dev above mean)

PARKING AVAILABILITY

-18%

Employer paid parking

POTENTIAL DEMAND

13% POP.

100k Users

No effect: Income, vehicle availability, attitudes towards cars

Note: Estimated marginal effects (at mean values) on the probability to join based on a Logit model using 304 complete response and controlling for area-specific effects (postcodes).

How much would it change travel behaviour?

TRIPS SHIFTED TO E-SCOOTER

+ 8.3%

-

+ 16.7%

+ 9%

- 0.2% /km

- 1.2% /tpw

+ 15.3%

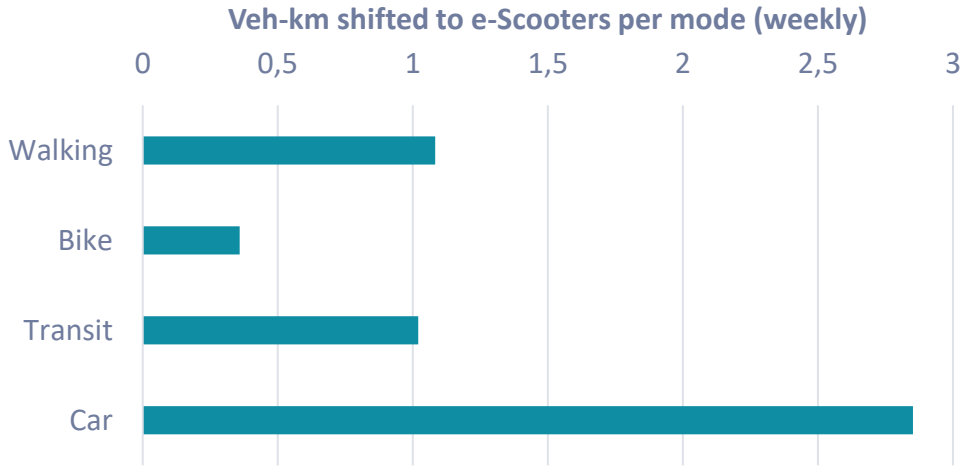
18 – 25 y/o

41 – 65 y/o

- 13%

66+ y/o

- 24%



Note: Only including respondents that would join the e-Scooter service

POTENCIAL CARBON REDUCTION

0,015

Tn/user

Other possible extensions

- Explore additional benefits → Air pollution, noise, accidents, inequality.
- Translate benefits into monetary values → Cost-benefit analysis
- Future scenarios analysis (evolution & trends)

Thank you!

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