Are shared e-scooters good for climate change?

Analyzing the case of Paris.

Related paper: transportation consequential Life Cycle Assessment: method and application to the emergence of free-floating e-scooters in Paris (under review)

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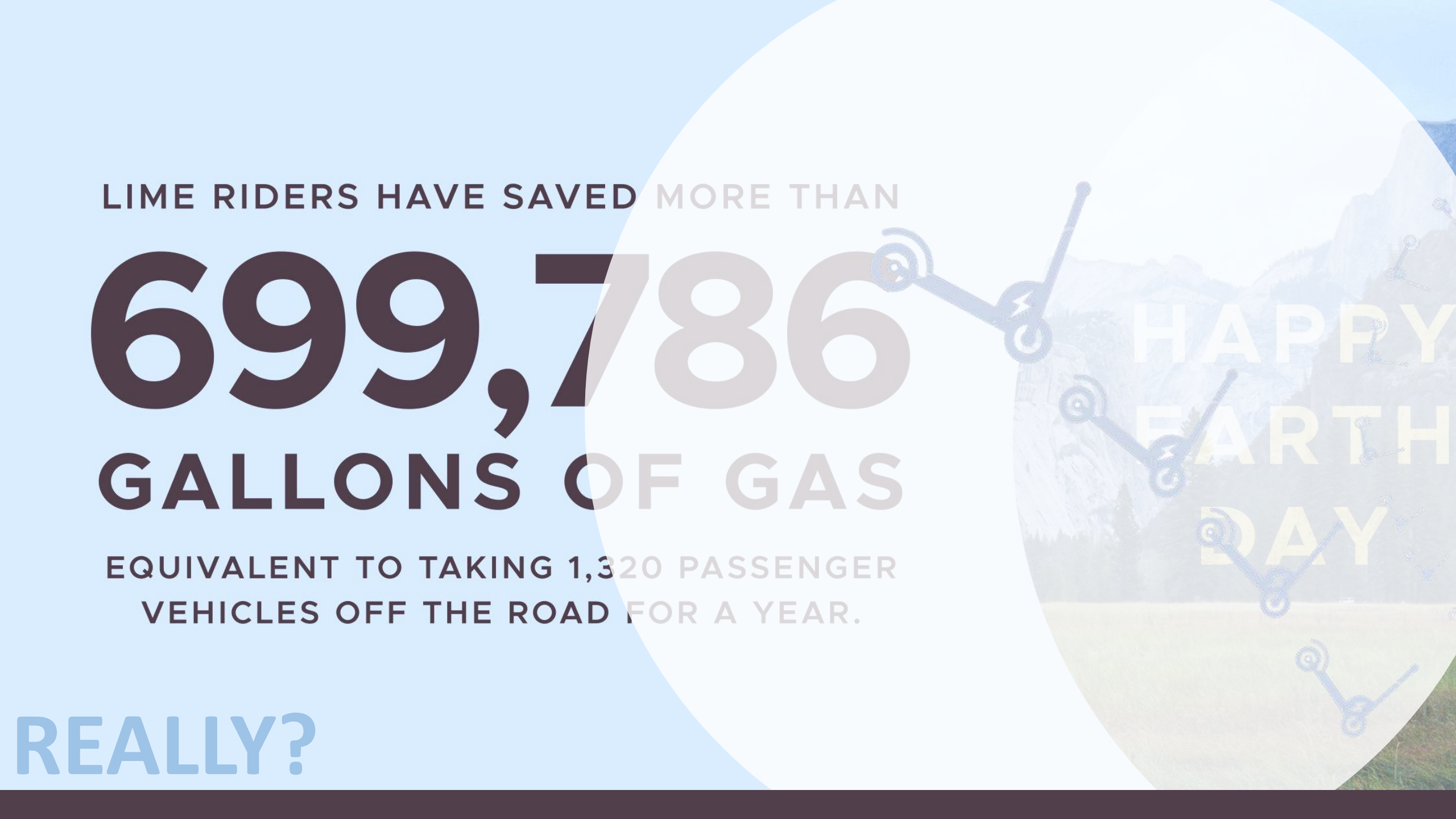
LIME RIDERS HAVE SAVED MORE THAN

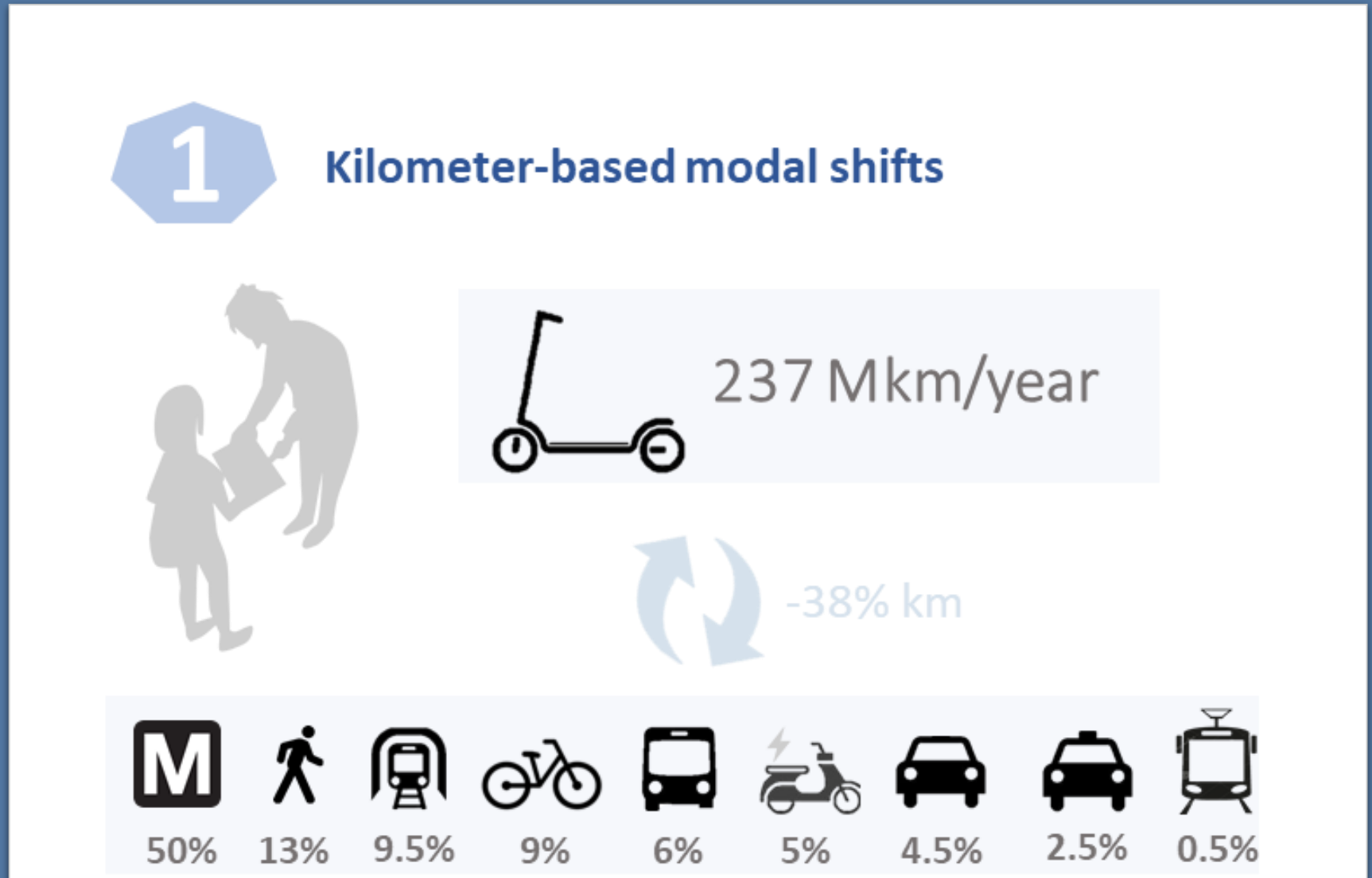
699,786

GALLONS OF GAS

EQUIVALENT TO TAKING 1,320 PASSENGER VEHICLES OFF THE ROAD FOR A YEAR.

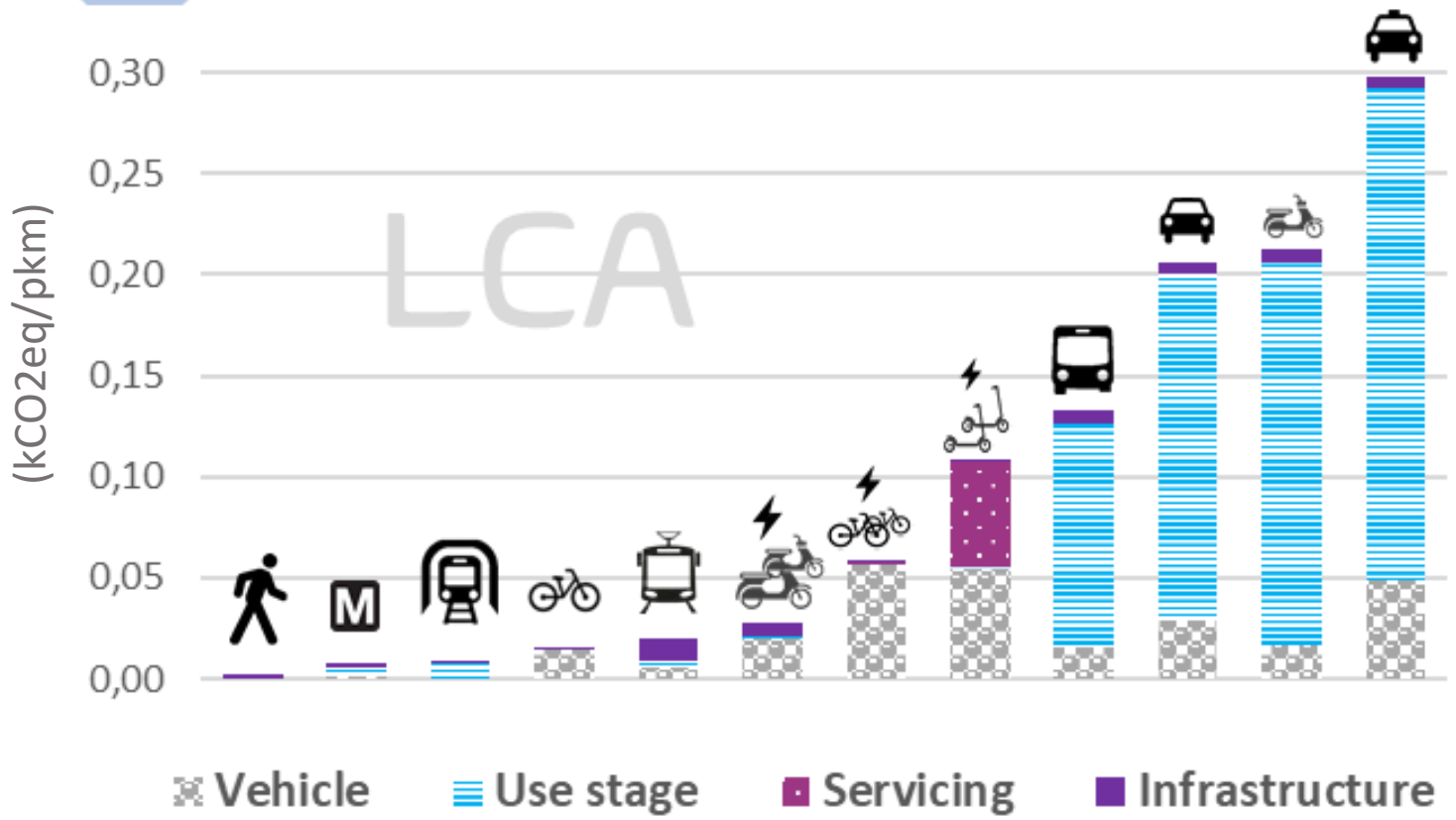


REALLY?



A **survey** to estimate mobility patterns in Paris

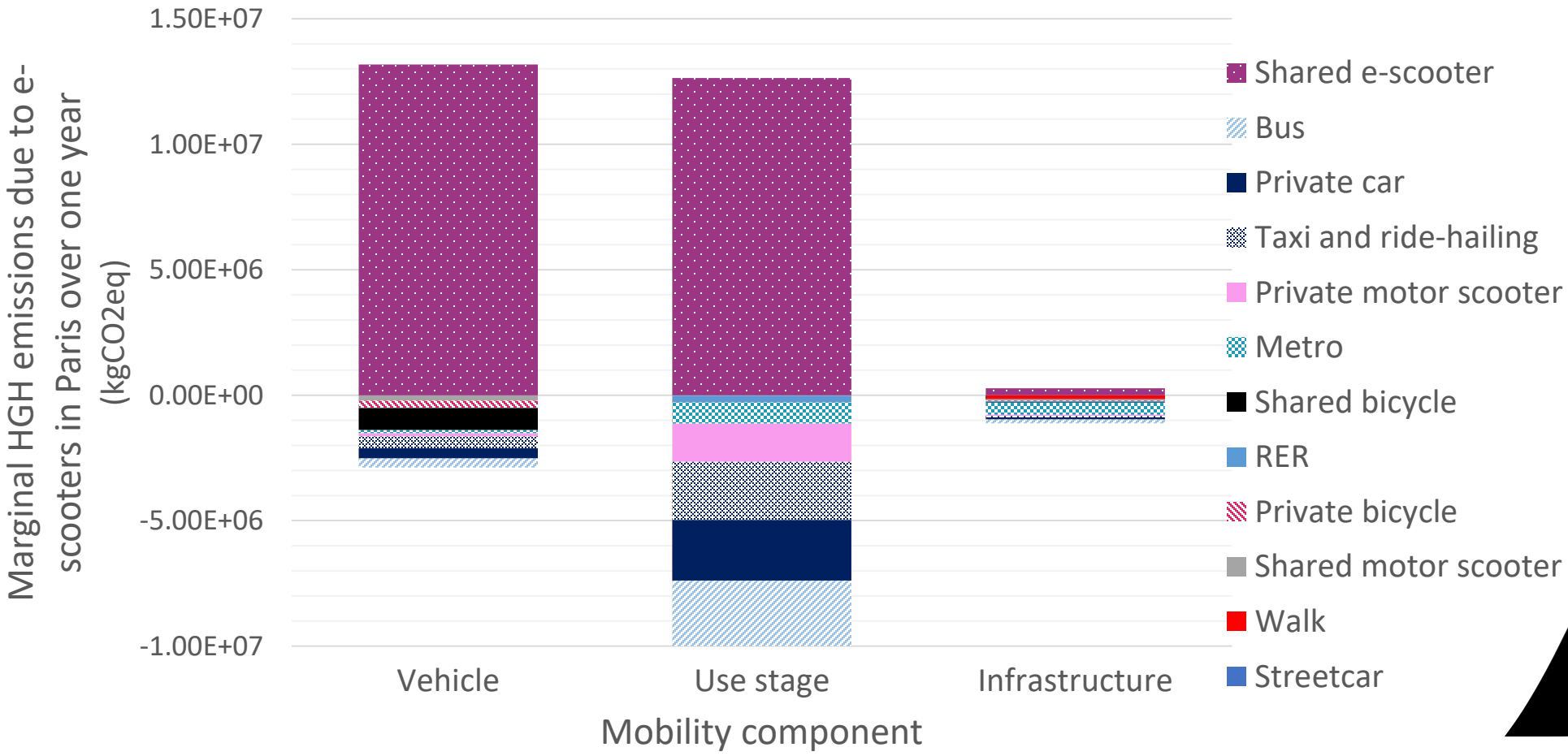
2 Modal carbon footprint in Paris

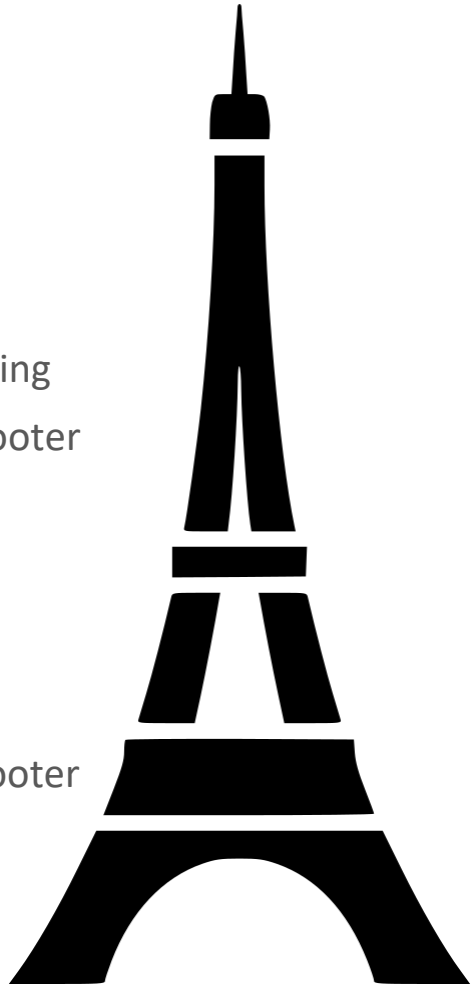


How much do I **emit** when **I travel**?

3 Carbon footprint of the e-scooter disruption

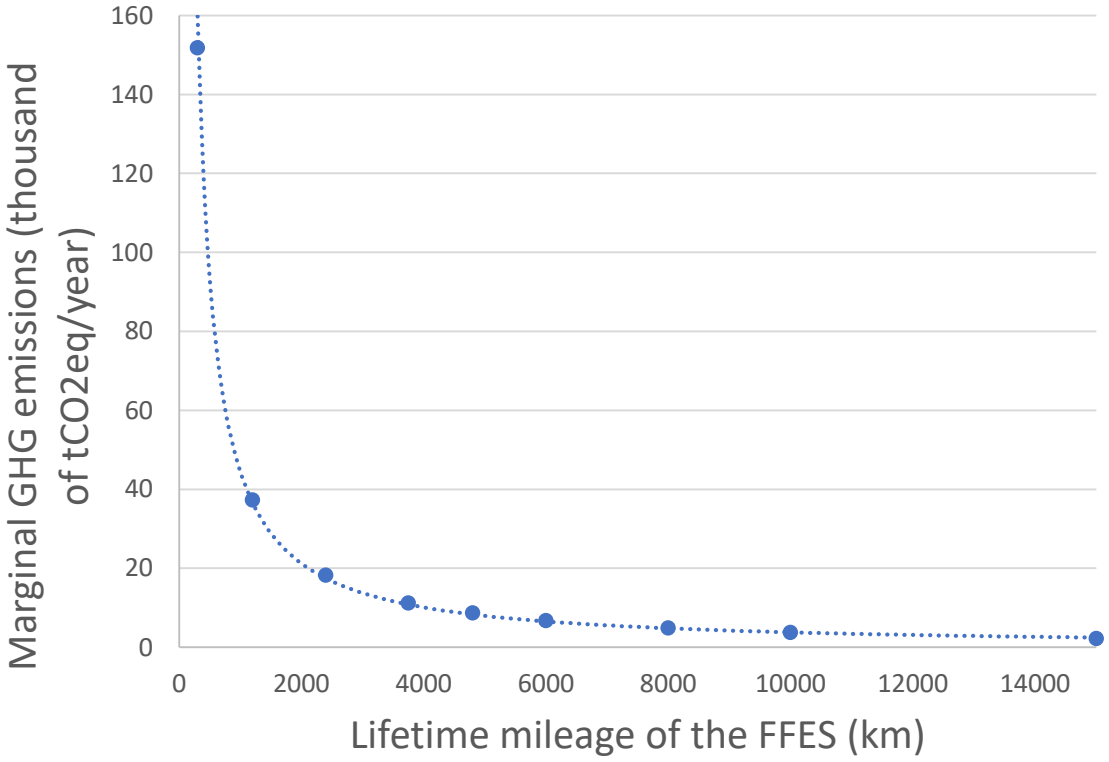
+12 000 tCO_2eq over one year
(1M user assumption)



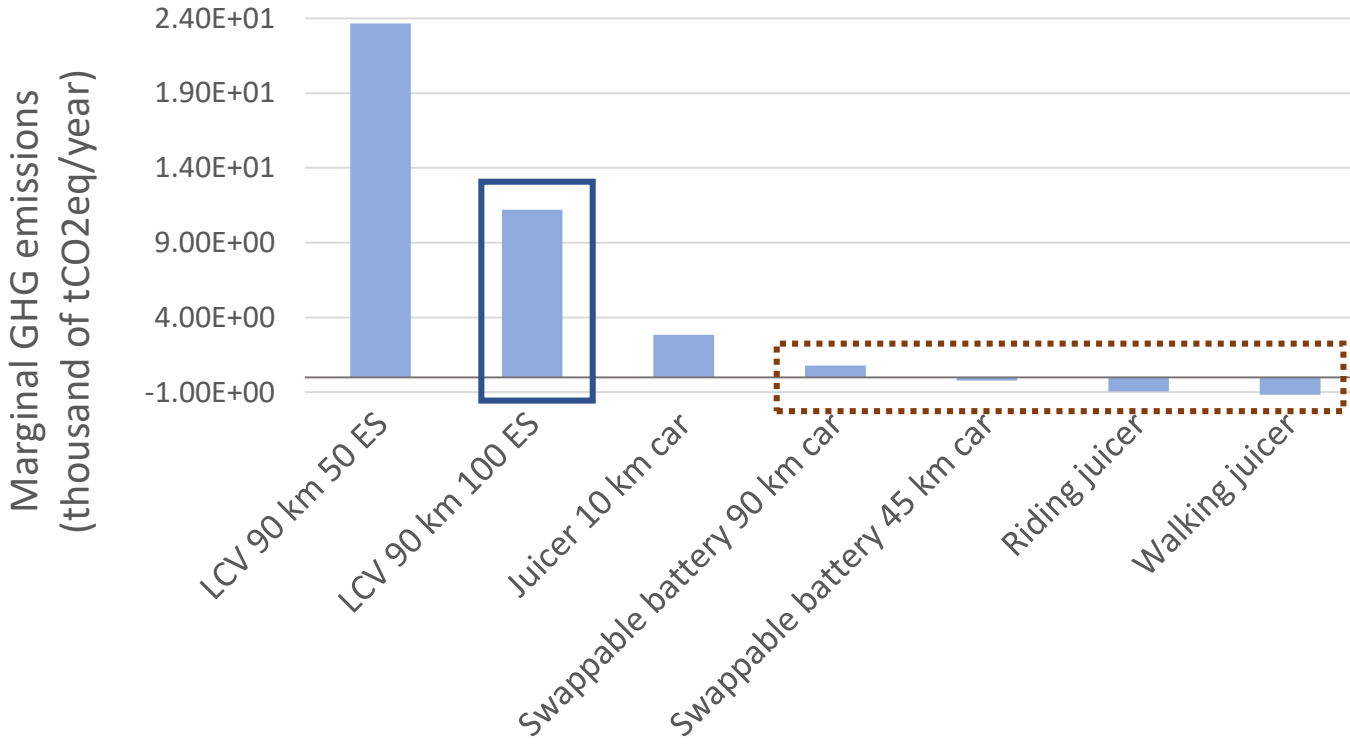


Can we **reverse this trend?**
Lifetime mileage and servicing influences

1. What if e-scooters last longer?



2. What if we change the servicing pattern?



A few **take-home** messages


In Paris, first generation shared e-scooters were very likely harmful to climate change


Optimizing both e-scooter lifespan and servicing is required to reverse this trend

BUT: these results are not « transferable » to other cities: a tailor-made assessment is required

E-scooters and microvehicles must have a role to play in a sustainable mobility system


Supply chain matters :
assess the environmental performance of mobility using LCA


Vehicle manufacturing of new mobility technologies can have a major environmental influence

THANK YOU FOR YOUR ATTENTION

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