

Ten recommendations for safe micromobility

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Intergovernmental Organisation

62 member countries

Think Tank

Policy analysis
Research
Statistics

Annual Summit

Forum for Ministers, industry
"The Davos of Transport"



What is micromobility?



URB-E



Biro



What is Micromobility?

We define micromobility as the use of micro-vehicles with:

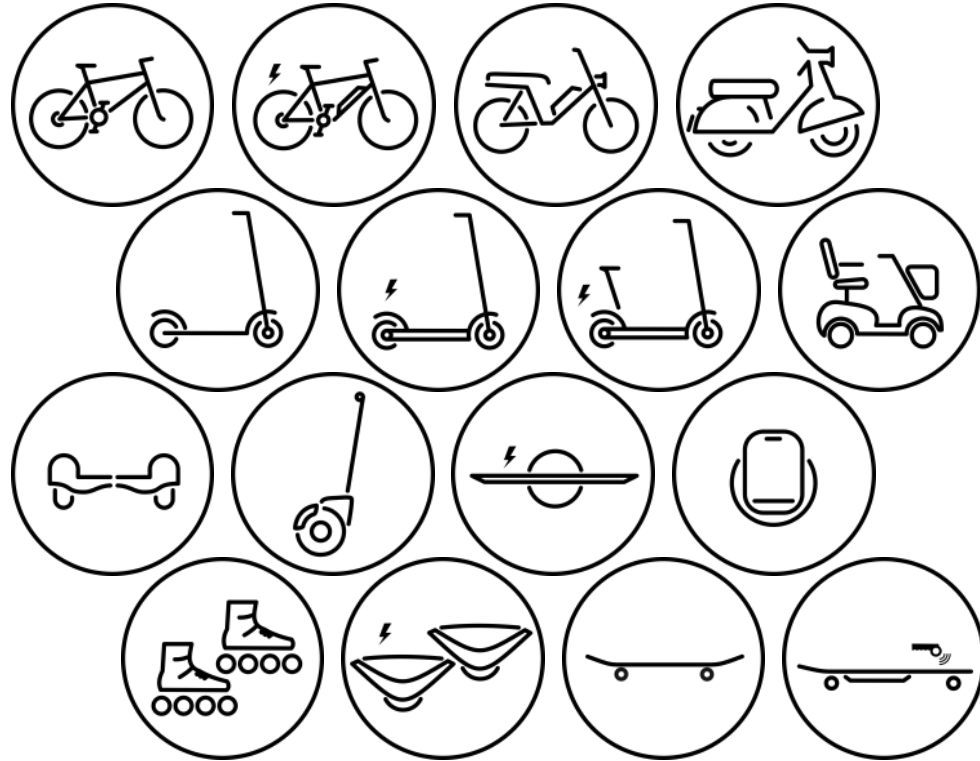


a speed up to 45 km/h
(28 mph)



&

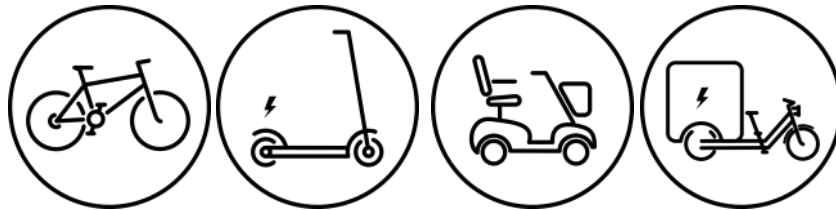


a mass up to 350 kg
(770 lb)



Typology of micro-vehicles

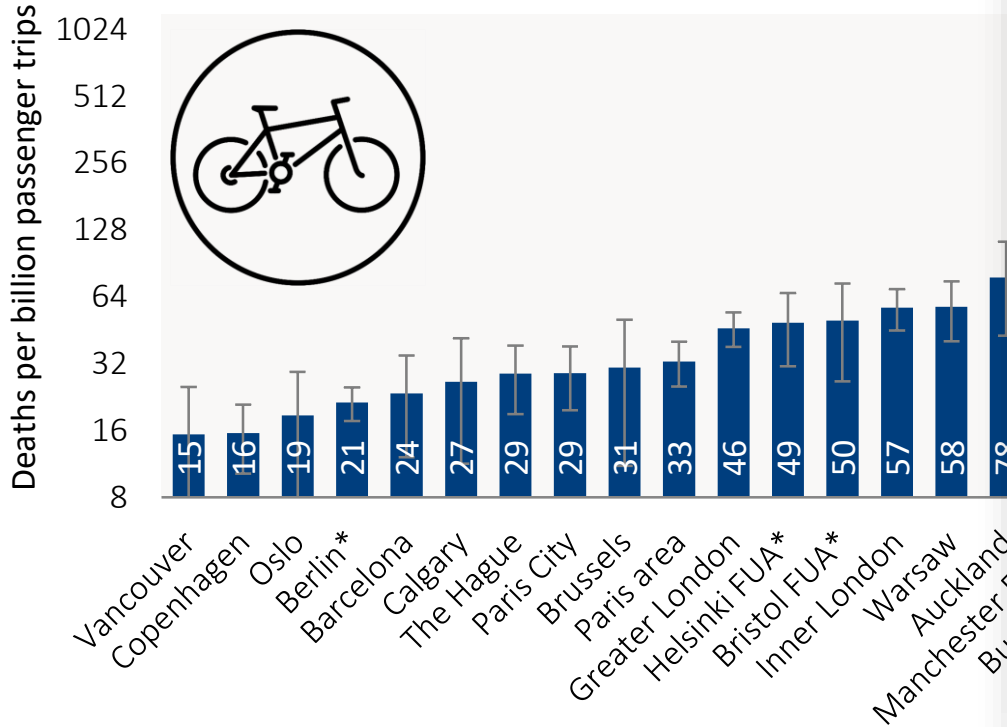
Type A	Type B	Type C	Type D
 <p>unpowered or powered up to 25 km/h (16 mph)</p>		<p>powered with top speed between 25-45 km/h (16-28 mph)</p>	
 <p><35 kg (77 lb)</p>	<p>35 – 350 kg (77 – 770 lb)</p>	<p><35 kg (77 lb)</p>	<p>35 – 350 kg (77 – 770 lb)</p>





Is it safe?

Cycling fatality risk across cities, 2014-2018 average



Monitoring Progress in
Urban Road Safety

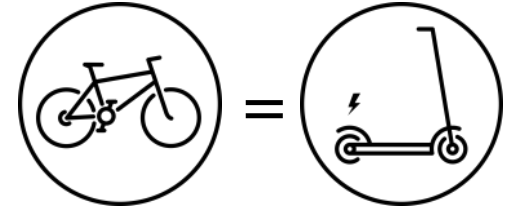


Safer City Streets

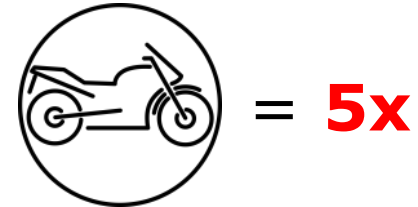
How safe is micromobility? >> Risk of death

- No difference in the risk of rider fatality per trip, between bicycles and e-scooters.

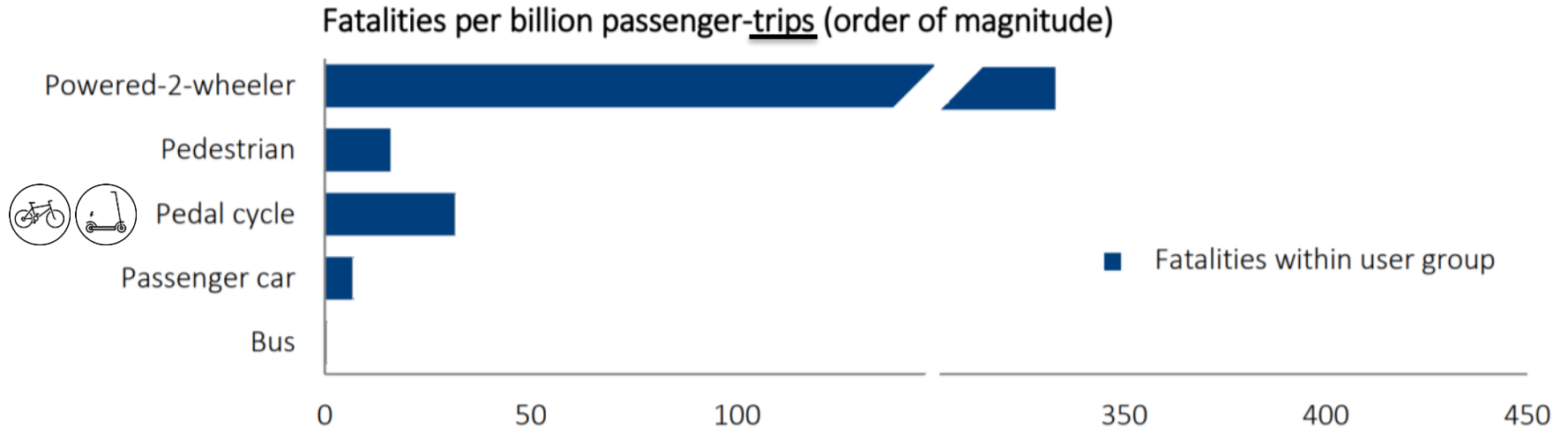
sources: media reports, exposure data from NACTO, Bird and Lime



- Risk of rider fatality per trip on a motorcycle or moped is 5 times higher.
source: ITF Safer City Streets database, median risk ratio across 8 cities

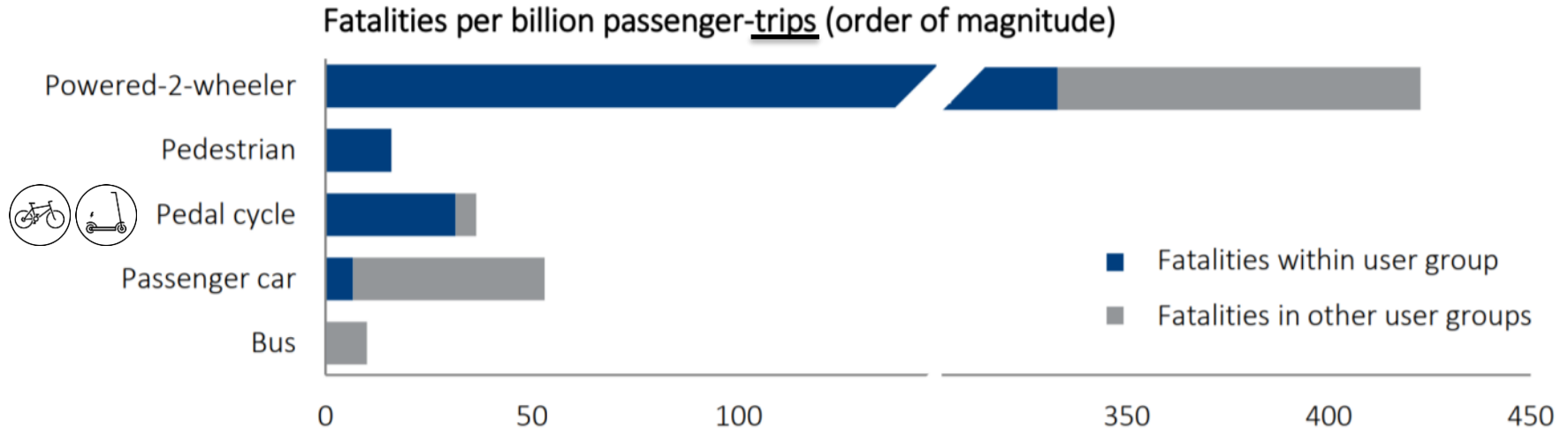


Urban road safety: the big picture



Sources: ITF. Fatalities, trips and travel distances from Auckland, Barcelona, Berlin, Greater London, Paris Area. Crash matrices from Bogota, Inner London, Paris City

Urban road safety: the big picture



Sources: ITF. Fatalities, trips and travel distances from Auckland, Barcelona, Berlin, Greater London, Paris Area. Crash matrices from Bogota, Inner London, Paris City

In the US, up to

50%

of shared e-scooter
trips are replacing
car/taxi/motorcycle
trips.

50

%

A motor vehicle
is involved in

80%

of bicycle and
e-scooter rider
fatalities

80

%

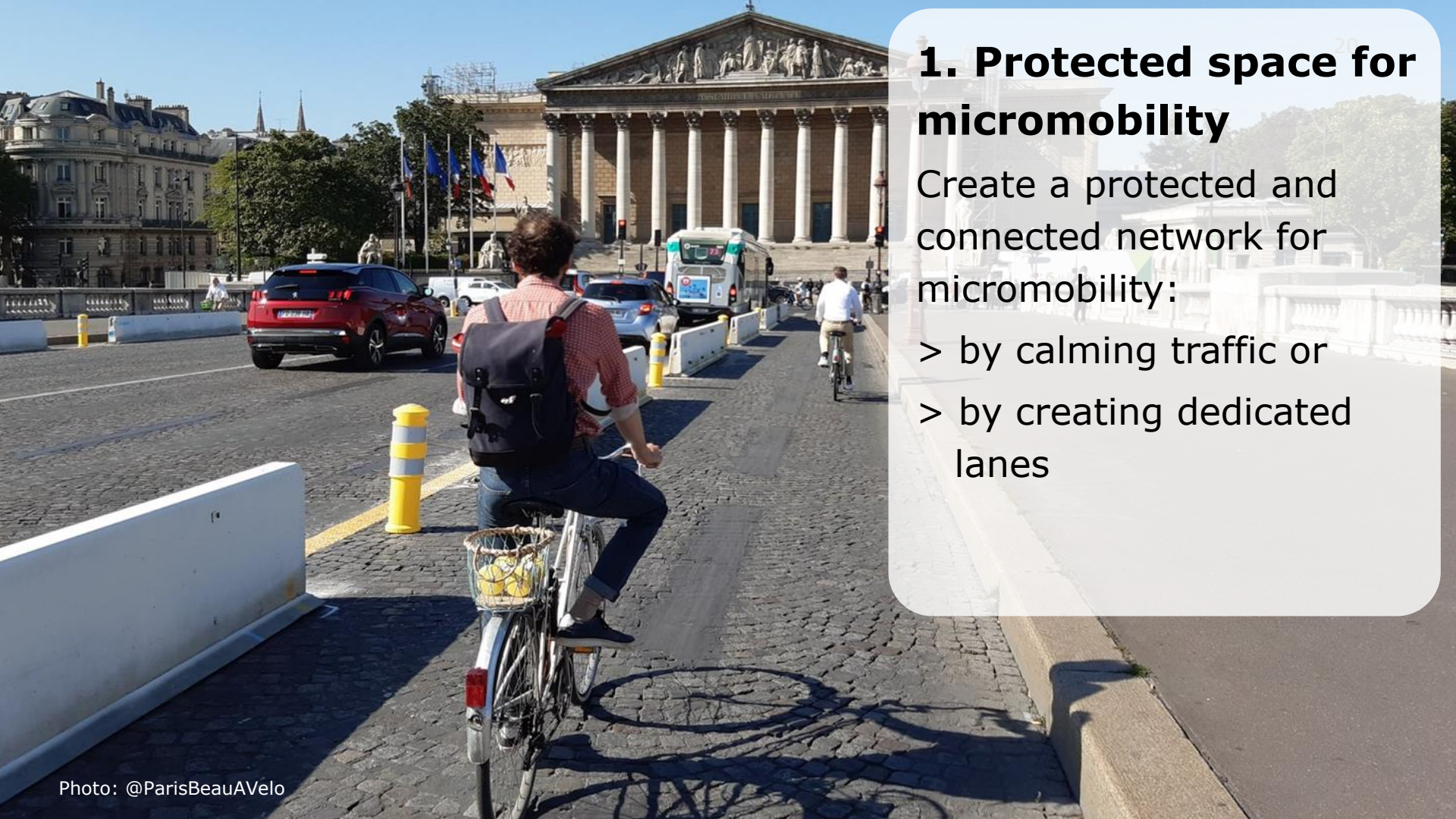
Pedestrians make
up less than

10%

of victims in
crashes involving
e-scooters or
bicycles

10

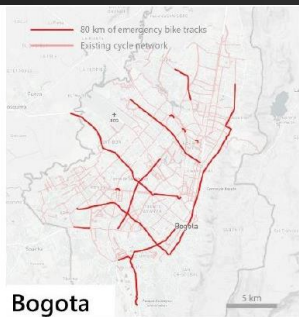
%



1. Protected space for micromobility

Create a protected and connected network for micromobility:

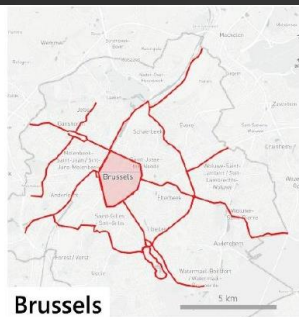
- > by calming traffic or
- > by creating dedicated lanes



Bogota

Demand-responsive emergency cycle routes deployed overnight

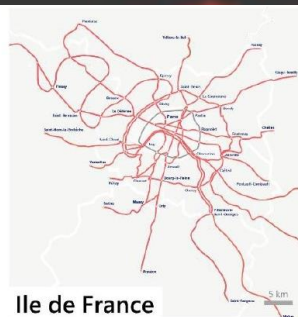
Pre-lockdown, the city deployed 112 kms of emergency cycling lanes (in addition to the 550 km already in place) to handle displaced public transport trips. Post-lockdown, the city iterated the network 3 times and currently has deployed 80 kms of emergency lanes (28 April).



Brussels

City-center re-prioritisation for walking, cycling and scootering and additional lanes

Brussels centre will become an emergency shared space zone with priority given to pedestrians and cyclists and 20km/h speed limits. Pedestrians will be able to walk on the carriage-way in order to facilitate physical distancing. An additional 40km of cycle tracks will be deployed in the region.



Ile de France

650 km regional bicycle network fast-tracked to help compensate for public transport loss

The region will help build a network of cycle routes and provide EUR 300 million funding (~60% of the total cost). Construction will be fast-tracked starting May 11th, 2020 and will include the rapid deployment of emergency cycling infrastructure. The city of Paris will deploy another 150km of pop-up cycle lanes.



Milan

Post-Covid19 mobility plan starting w/ emergency lanes, speed zones and plazas

In order to adapt to post Covid-19 travel behaviour and meet sustainability goals, Milan's « Strade Aperte » mobility plan calls for new cycle track infrastructure, new slow speed zones, and pedestrianised plazas, starting, deployed first as emergency infrastructure.



Lima

Planned 301 km cycle network to be deployed as emergency lanes first

The first phase of the network planned to be deployed in 5 years will be deployed in 3 months. It will first be implemented as emergency cycling lanes and will be extended and converted to hard facilities in later phases.



Oakland

75 miles of Slow Streets to allow social spacing for walking, cyclists and scooters:

The city of Oakland has converted its neighbourhood cycling network (10% of all streets) into pop-up 'slow streets' closed to through car traffic. San Francisco has implemented a similar measure with a number of streets prioritised for walking and cycling.



COVID-19 TRANSPORT BRIEF

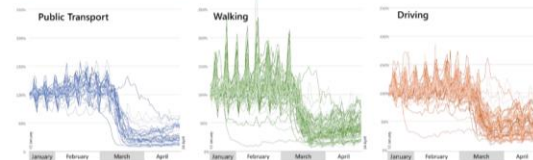
Re-spacing Our Cities For Resilience

3 May 2020

React, reboot and rethink – cities must meet this triple challenge to continue as catalysts for creative social and economic activity despite new health imperatives. Mobility in cities emerging from confinement will be different from what it was before the lockdown. At the crux of their challenge is the way in which limited space will be (re-) allocated.

Public authorities have reacted to the Covid-19 crisis by calling on citizens to reduce their movements to the strict minimum to lessen transmission risks. More than [half the world](#) population is under home confinement directives or advice. Public transport use, road traffic and everyday mobility has collapsed to record low levels as a result – [even in places](#) with no stay-at-home orders (Figure 1).

Figure 1 Sudden Collapse: Apple device trip routing requests in countries around the world



Routing requests are a proxy for travel demand and do not include most habitual trips. They give an indication of the scale of travel demand contraction where Apple devices are present and Apple routing services are used. Source: ITF based on Apple Mobility Trends

React to quickly changing conditions

Rapid responses, sometimes improvised, have been deployed in the face of the global pandemic to ensure essential trips and to respond to changes in travel demand. Many workers, especially those in



2. To make micromobility safe, focus on motor vehicles

The novelty of e-scooters should not **distract** from addressing the risk motor vehicles pose for all other road users.

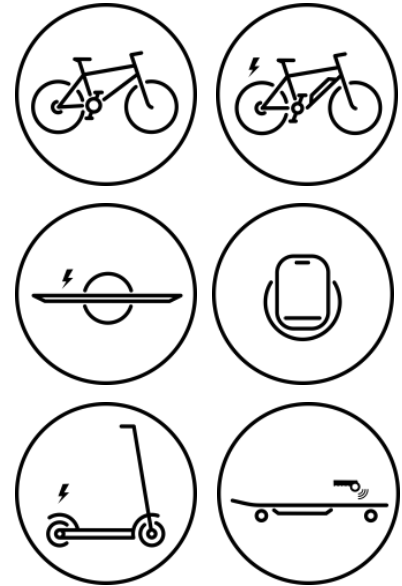
Where **vulnerable** road users share space with motor vehicles, speed limits should be 30 km/h or less.



Recommendation #3

Regulate low-speed micro-vehicles as bicycles

Micromobility can make urban travel more sustainable. To prevent over-regulation, low-speed micro-vehicles such as e-scooters and e-bikes should be treated as bicycles. Faster micro-vehicles should be regulated as mopeds.



Recommendation #4

Collect data on micro-vehicle trips and crashes

Police and hospitals should collect accurate **crash** data. Road safety agencies should collect **trip** data via operators, travel surveys and on-street observation.

The statistical codification of vehicle types must be updated and harmonised.



Time to improve data on crashes, injuries and risk

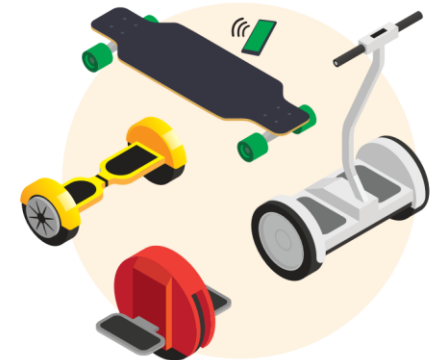
Police and health services should precisely codify vehicle type and, shared mobility service provider.



e-Scooters

Keyword for Chief Complaint:
e-scooter + Brand

(Bird, Gotcha, Jump, Lime, Spin, Razor, etc.)



Other Devices

Keywords for Chief Complaint:
e-skateboard, e-hoverboard,
Segway®, e-unicycle

NOT considered e-scooters

These devices are not considered e-scooters and have their own set of ICD-10-CM codes.



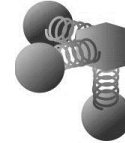
Recommendation #5

Proactively manage the safety performance of street networks

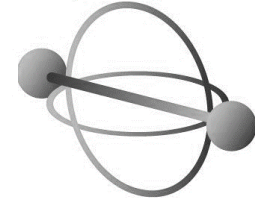
Many shared micro-vehicles possess motion sensors and GPS. These can yield useful data on potholes, falls and near crashes.

>> Authorities and operators should collaborate to use them for monitoring and maintenance.

Accelerometer



Gyroscope



Magnetometer /
eCompass



Recommendation #6

Include micromobility in training for road users

Training for car, bus and truck drivers to avoid crashes with micro-vehicle riders should be mandatory.

Cycle training should be part of the school curriculum. Training programmes should be regularly evaluated and revised.



Recommendation #7

Tackle drunk driving and speeding across all vehicle types

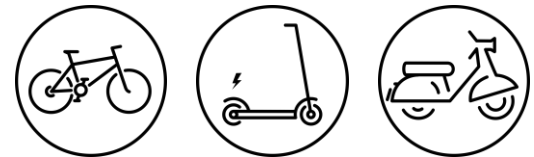
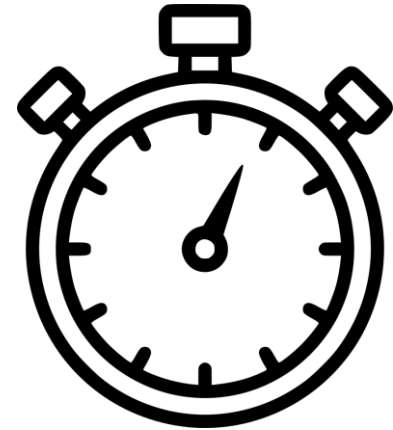
Governments should define and enforce limits on speed, alcohol and drug use among all traffic participants. This includes motor vehicle drivers and micromobility users.



Recommendation #8

Eliminate incentives for micromobility riders to speed

Operators of shared micromobility fleets should ensure their pricing mechanisms do not encourage riders to take risks, speed, or ignore traffic rules.

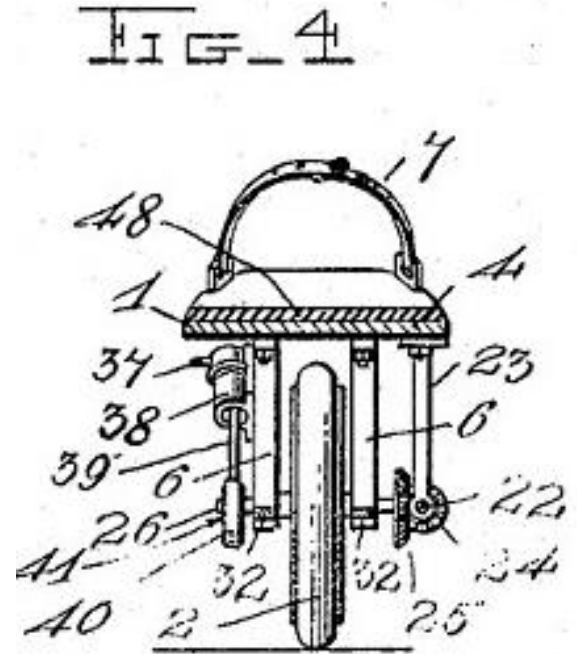


Recommendation #9

Improve micro-vehicle design

Manufacturers should enhance stability and road grip. Solutions could be found in pneumatic tyres, larger wheel size and frame geometry.

Indicator lights could be made mandatory and brake cables better protected.



Recommendation #10

Reduce wider risks associated with shared micromobility operations

The use of vans for re-positioning or charging micro-vehicles should be minimised, as they impose additional risks on all road users.

Cities should allocate parking space for micro-vehicles close to bays for support vans.

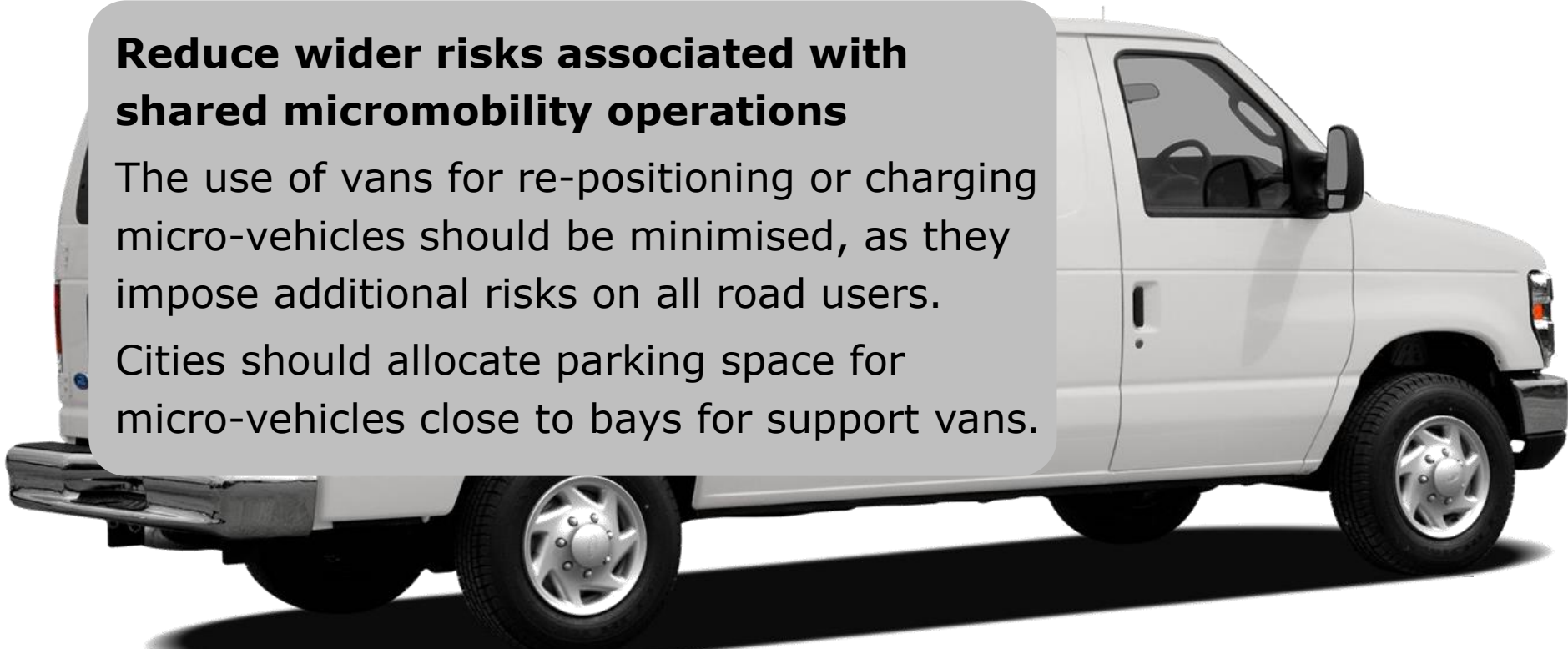
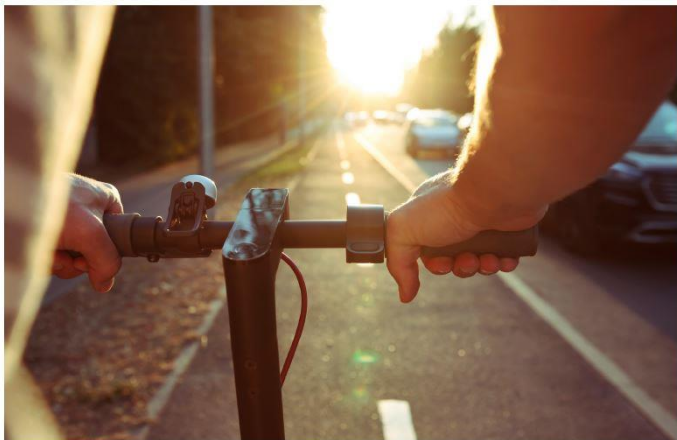




Photo: Uber



Photo: K-Ryole



Safe Micromobility



Corporate Partnership Board
Report

Find out more

[https://www.itf-oecd.org/
safe-micromobility](https://www.itf-oecd.org/safe-micromobility)



ITF workshop on Safe Micromobility, Lisbon, Oct 2019



Corporate Partnership Board members



Safer City Streets

the global traffic safety network for liveable cities

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► **48 cities**

Thank you

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