

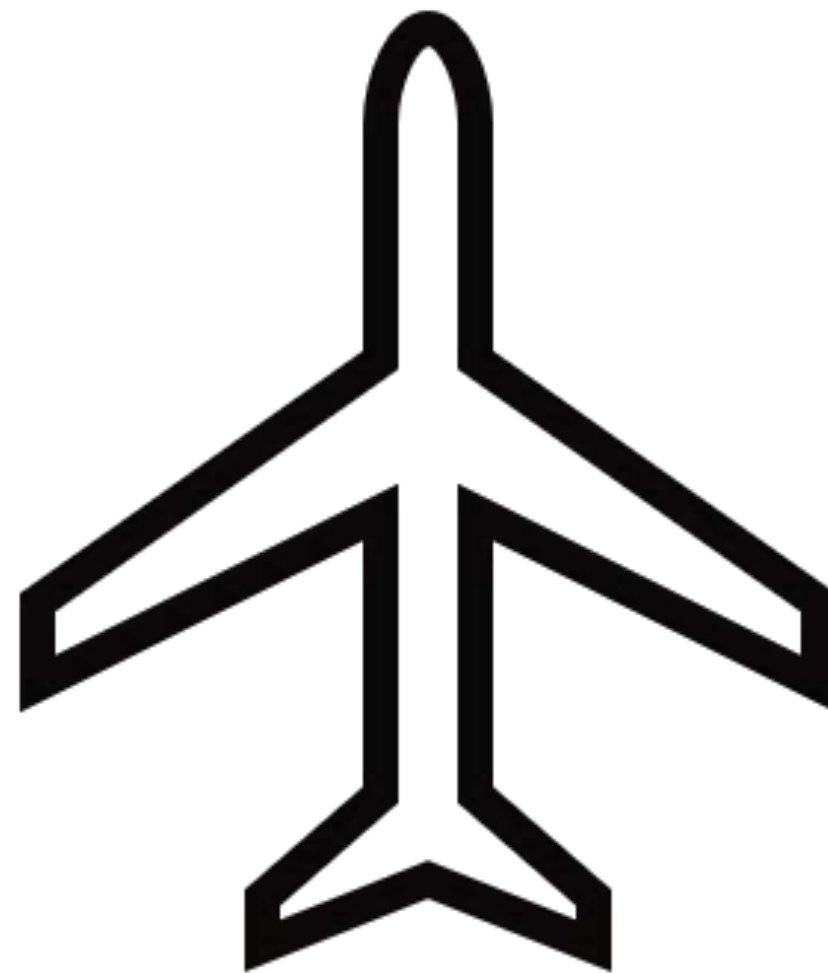
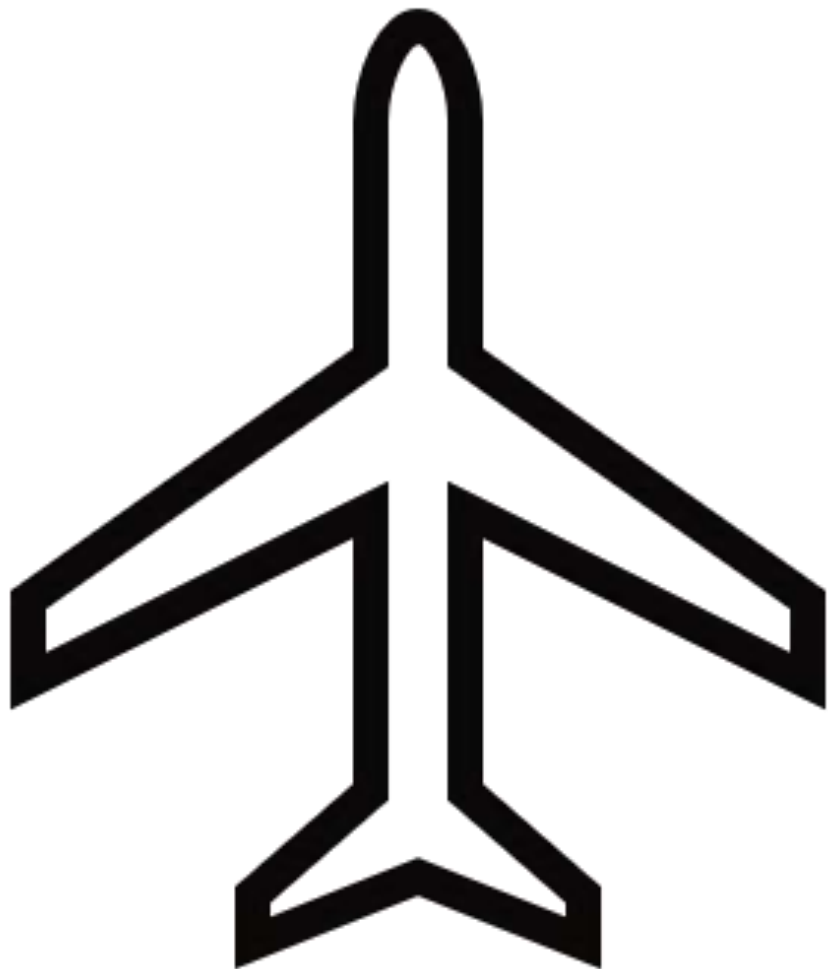
A photograph of five children sitting on a wooden bench, each on a scooter and wearing a helmet. From left to right: a girl in a grey t-shirt and red helmet, a girl in a pink jacket and pink helmet, a girl in a green "AUSTRALIA" hoodie and light blue helmet, a boy in a blue and white shirt and blue helmet, and a boy in a green hoodie and grey helmet. The background is a perforated metal wall.

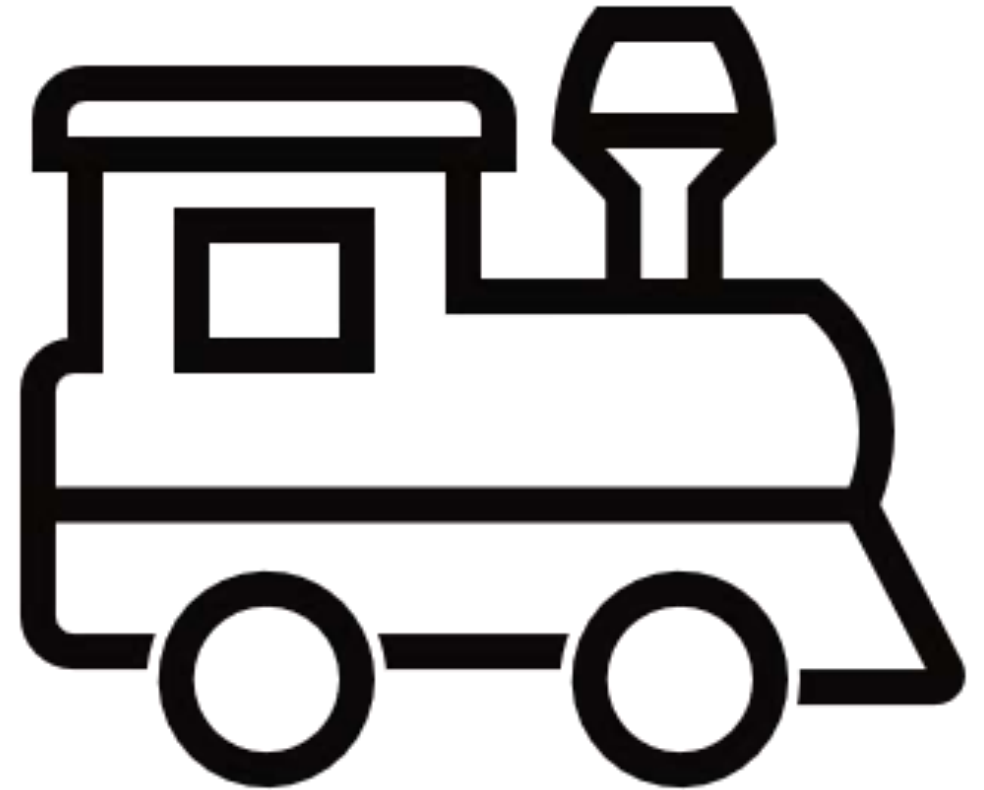
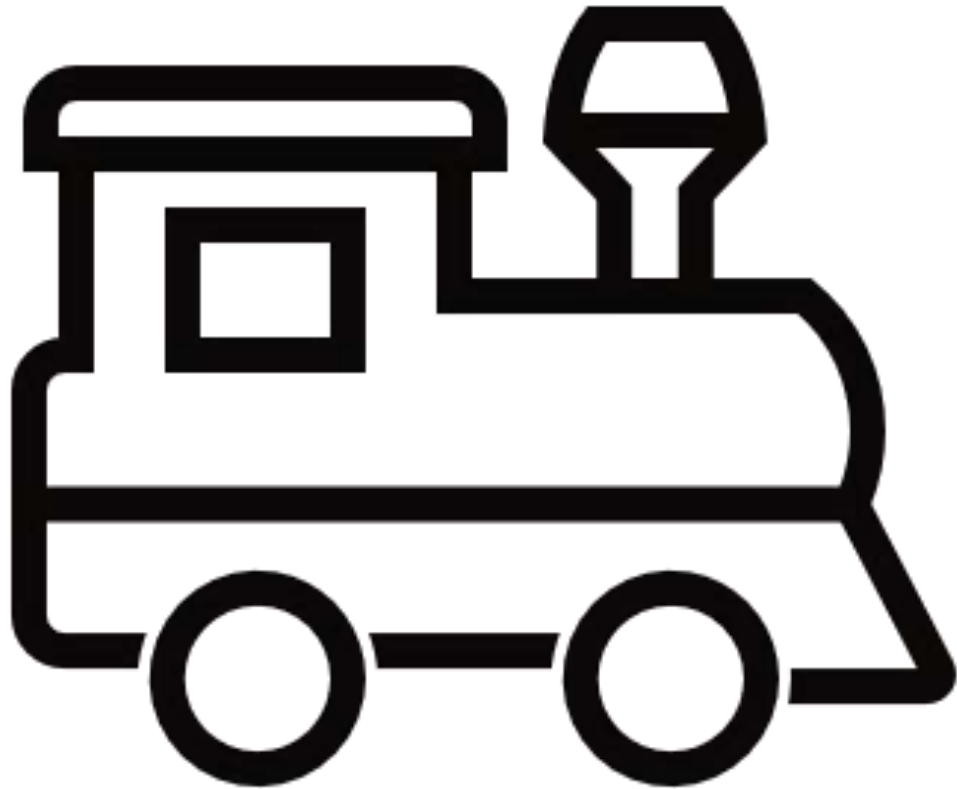
# Designing for Micromobility

A Movement and Place approach

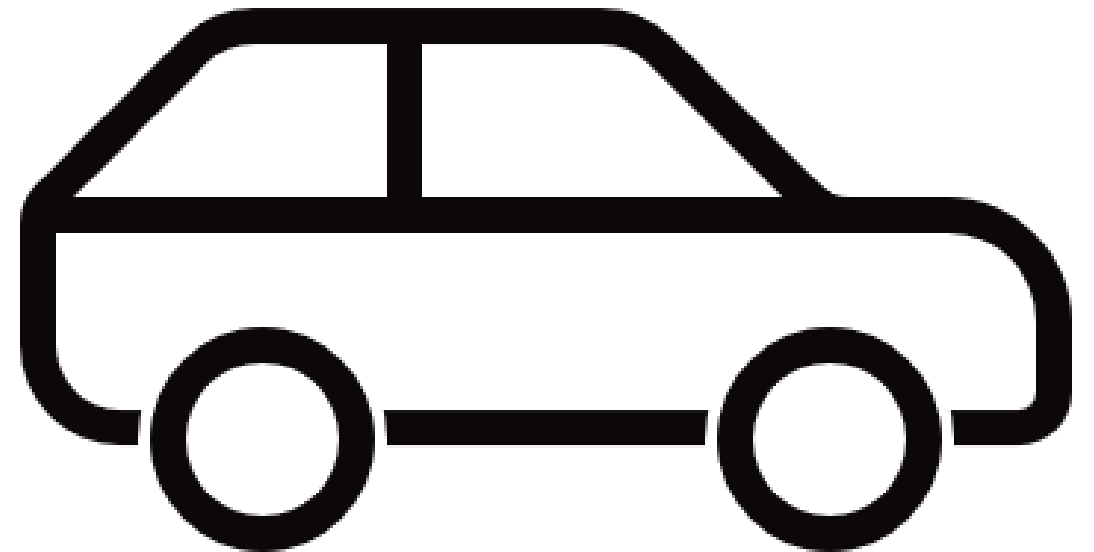
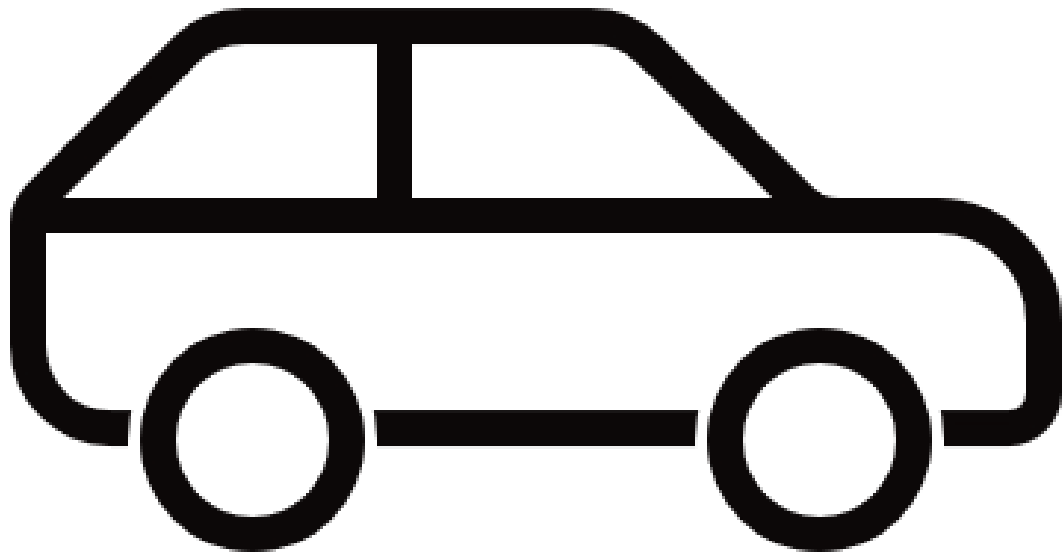
Mary Haverland

25 November 2022







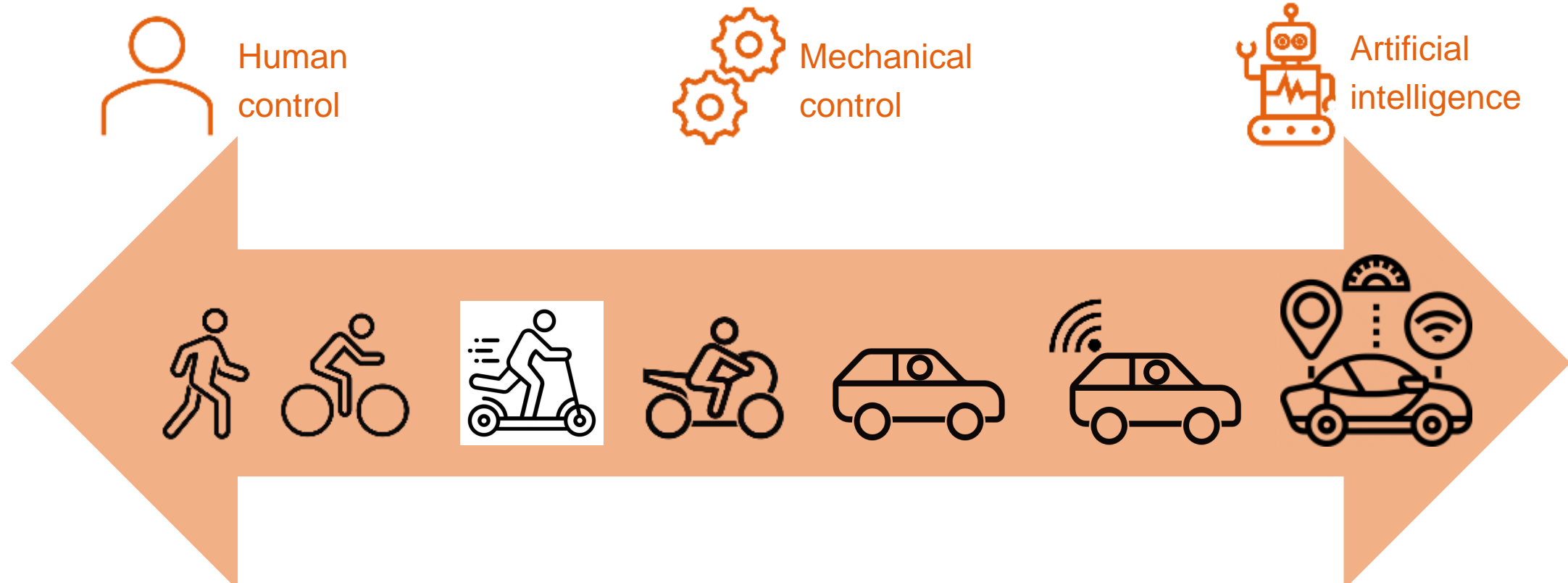








# The Mobility Spectrum



- + Vehicles easier to build
- + Infrastructure cheaper
- + Healthier
- Behaviour hard to predict and control
- Lag in receiving data to analyse and action

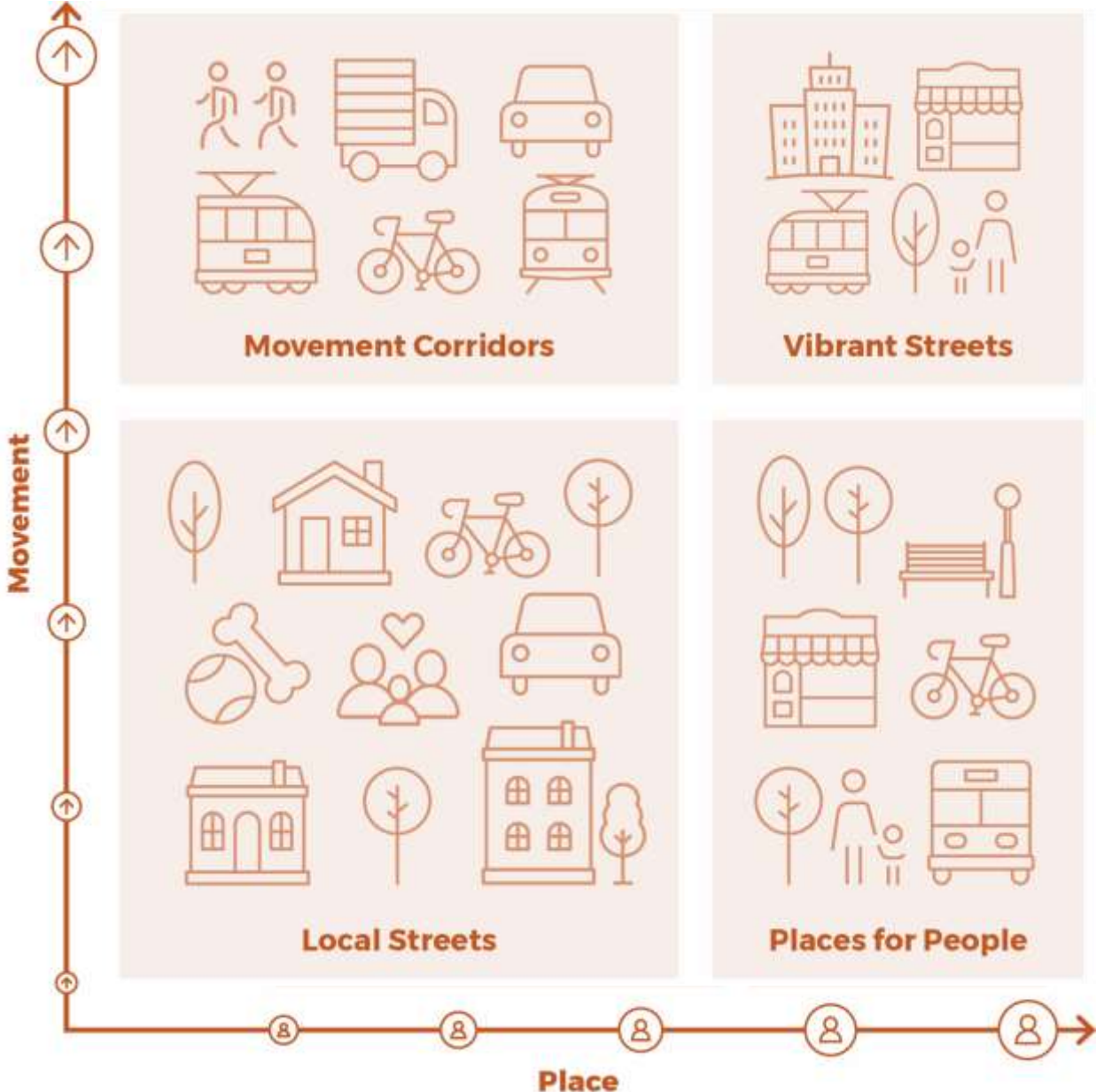
- Vehicles harder to build
- Infrastructure more expensive
- + Behaviour easy to predict and control
- + Real time data to analyse and action
- + Long distance and heavy load efficiency



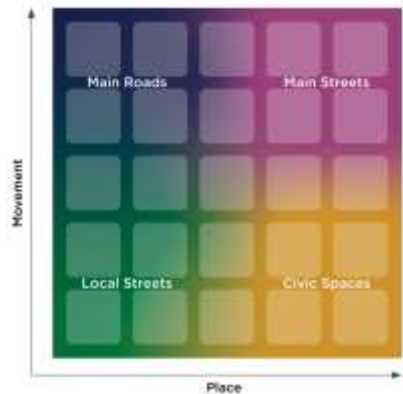
# Micromobility users of all ages and abilities



# Movement and Place



# Movement and Place – Cycling guidance



## Priority routes

Street typology (Movement and Place)	Civic space	Local street	Main street	Main road
Motor vehicle speed	≤10 km/h	≤30 km/h	≤50 km/h	>50 km/h
Motor vehicles / day	n/a	≤2,000	>2,000	n/a
<u>Bicycle path</u> (One and two-way)		Ⓢ	Ⓢ	Ⓢ
<u>Quickway</u>		Ⓢ		
<u>Shared path</u> (Low pedestrian activity and low cross-cycleway movement)				
<u>Shared path</u> (High pedestrian activity or high cross-cycleway movement)				
<u>Shared zone</u>	Ⓢ			

Ⓢ Required for priority routes   
 Ⓢ Suitable, but not preferred for priority routes

Figure 2.2a Cycleway Facility Selection Tool - Priority Routes

## Local routes

Street typology (Movement and Place)	Civic space	Local street	Main street	Main road
Motor vehicle speed	≤10 km/h	≤30 km/h	≤50 km/h	>50 km/h
Motor vehicles / day	n/a	≤2,000	>2,000	n/a
<u>Bicycle path</u> (One and two-way)		Ⓢ	Ⓢ	Ⓢ
<u>Quickway</u>		Ⓢ		
<u>Shared path</u> (Low pedestrian activity and low cross-cycleway movement)		Ⓢ	Ⓢ	Ⓢ
<u>Shared path</u> (High pedestrian activity or high cross-cycleway movement)				
<u>Shared zone</u>	Ⓢ			

Ⓢ Required for priority routes   
 Ⓢ Suitable, but not preferred for priority routes

Figure 2.2b Cycleway Facility Selection Tool - Local Routes

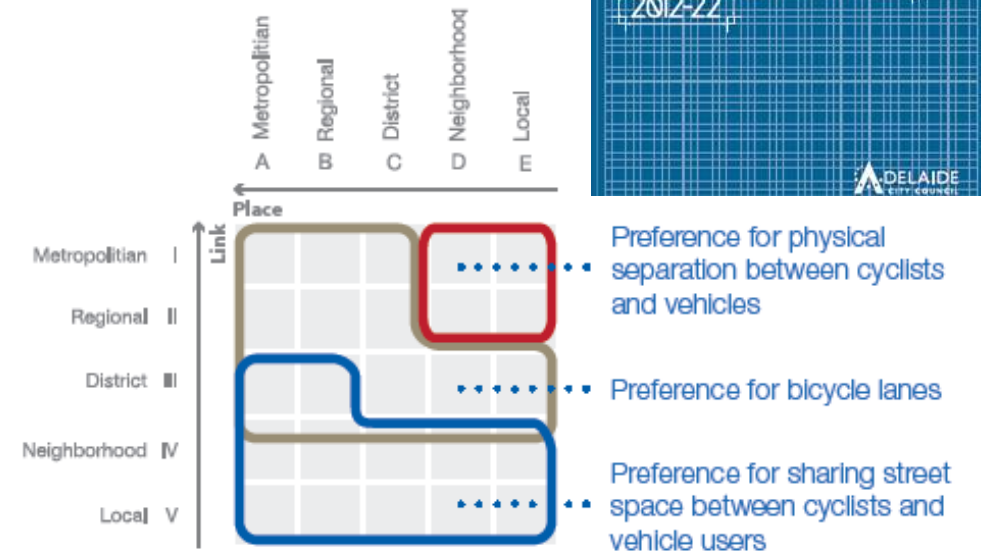
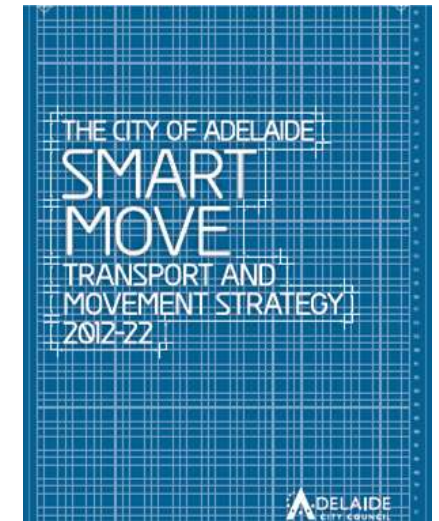
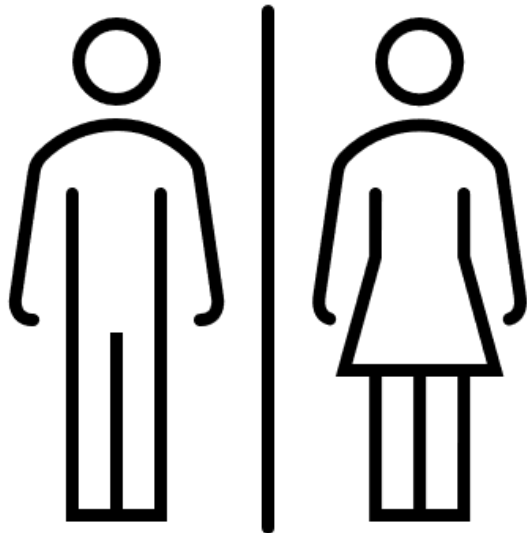


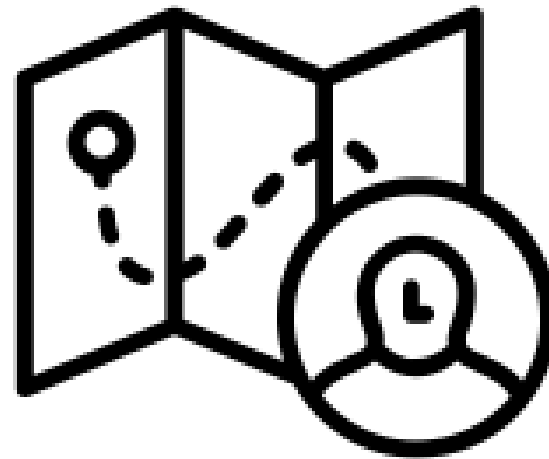
FIGURE 5: Accommodating cyclists on different street types

# People – Electric shared scooters

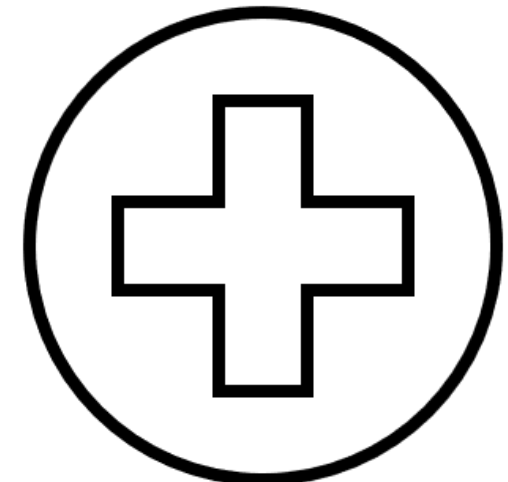
Who rides?



Why they ride?



How safe is riding?

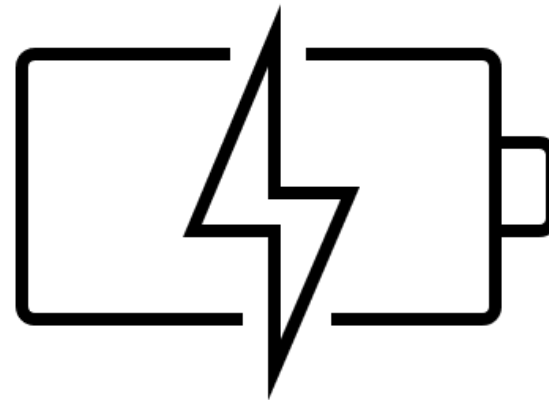


# Place – Electric shared scooters

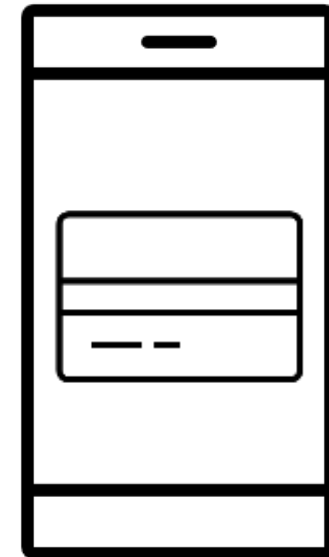
Where they park?



How they charge?



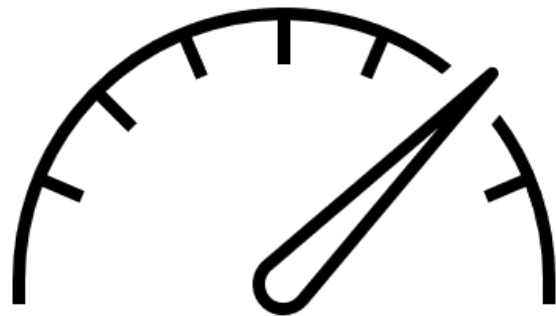
Information and payment



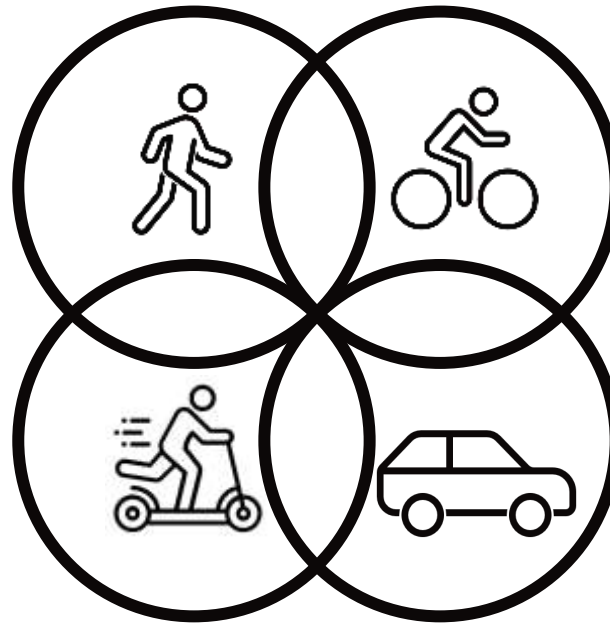


# Movement – Electric shared scooters

How fast?



Who they ride with?

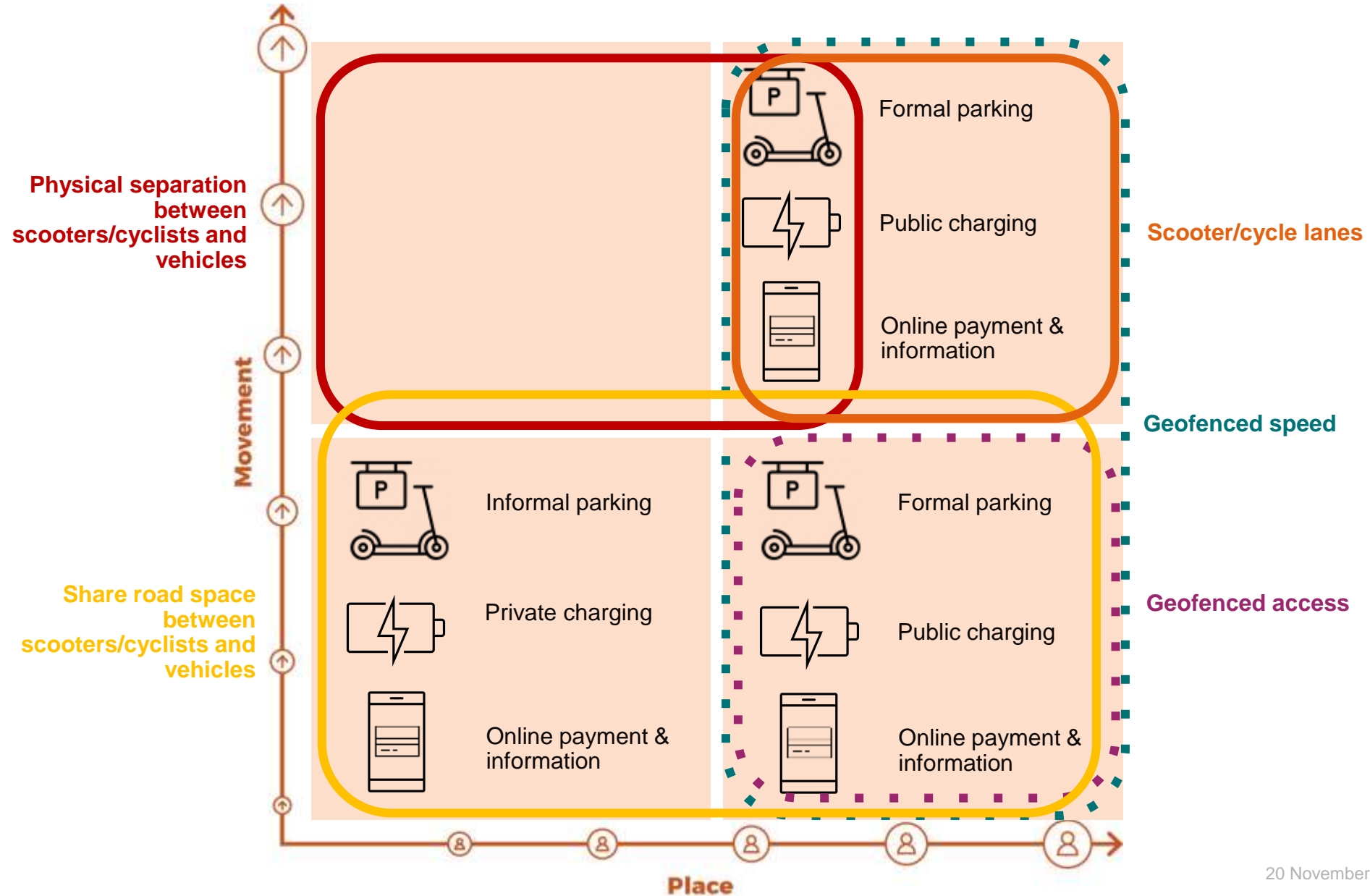


Ride data





# Movement and Place – Electric shared scooters





**Mary Haverland**

Senior Technical Director – Transport Planning

M. +61 (0) 450 276 360

E. mary.haverland@arcadis.com



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