

# Strandroth Inc.

Road Safety Advice, Research and Strategy

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# Introduction

- **Background**
  - Report where we developed a framework for increased safety for e-scooters and bicycles, in line with a safe systems approach
- **This session**
  - Micromobility in a safe system
  - Present framework for increased safety
  - Policy and planning

# Safe system approach



## The Safe System Approach:

- A vision of zero deaths and serious injuries on our roads
- Movement should not be produced at the expense of human trauma
- Recognises that people will always make mistakes and have crashes, but the road system should be forgiving, and crashes should not result in death or serious injury.
- In addition to road users, system designers have a responsibility to reduce the harm being done

*An example of the same system approach illustrated in Safer Roads, Safer Queensland – Queensland's Road Safety Strategy 2015–21, Department of Transport and Main Roads.*

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# A safer road transport system for bicyclists and e-scooter riders

## Safer speeds

### Motor vehicles:

- Max 20 km/h in intersections without traffic calming
- Max 30km/h on midblocks when mixed with bicyclists and e-scooters

### Bicycles and e-scooters:

- Max 15 km/h when mixed with motor vehicles
- Max 6-7km/h on non-seperated shared paths/mixed with pedestrians
- Max 15 km/h on line-seperated shared paths
- Max 20 km/h when seperated from both motor vehicles and pedestrians

## Safer vehicle

### Bicycles and e-scooters

- Well functioning brakes (ABS)
- Speed limiter
- Consider stability (e.g., can cross a kerb safely)

### For MV :

- AEB VRU
- Limiting ISA
- Crash worthiness

## Safer road

- In first hand seperate from MV at speeds >30km/h
- Seperation from pedestrians where possible
- High quality maintenance of road surface
- Speed calming for both motor vehicles and cyclists to achieve max 20km/h at intersections
- Infrastructure design (kerb stones, softer road surface, road side area)
- Appropriate road width

## Safer road user

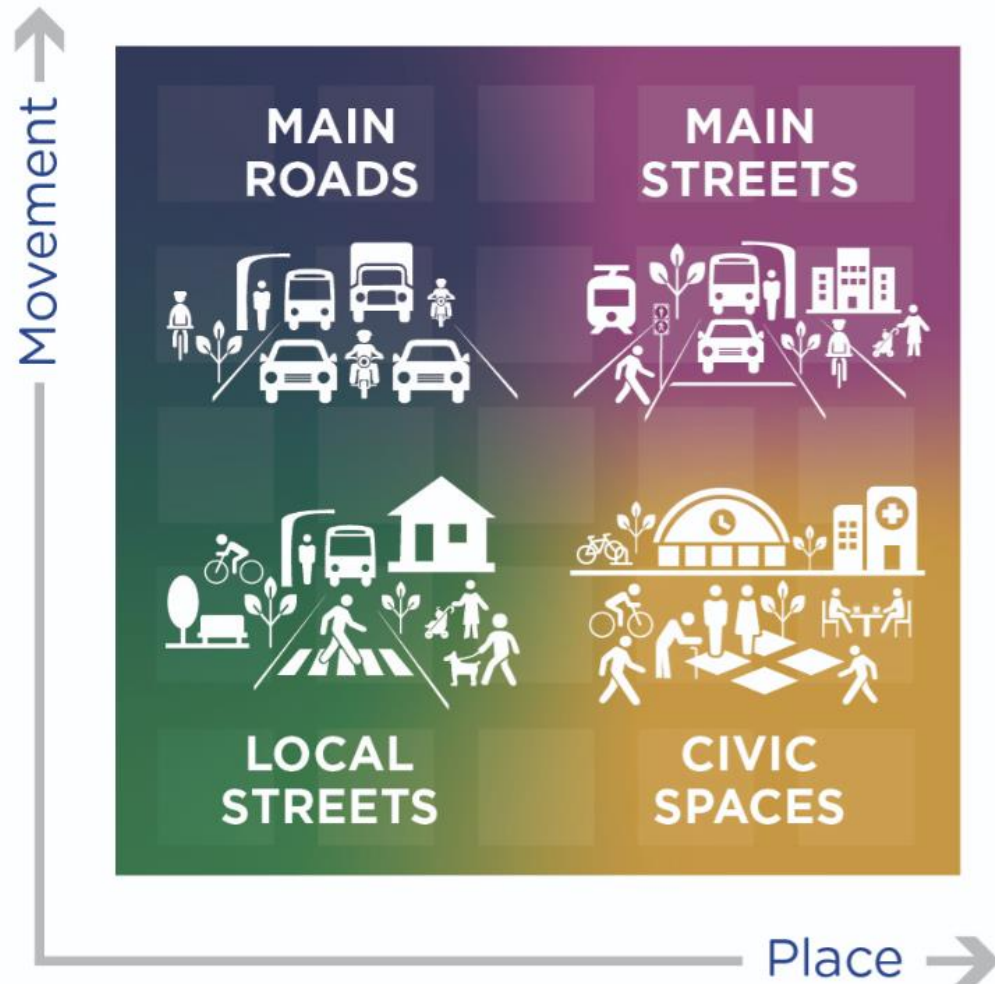
- Wears helmet
- Sober
- Follow speed limits
- Use designated infrastructure

Human tolerance to external force as well as mental and physical limitations

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# Policy and planning framework



Where is the place for E-mobility in the transport system?

Movement and place framework. NSW Government (2022). Retrieved from <https://www.movementandplace.nsw.gov.au/place-and-network/classifying-street-environments>.

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# Key messages

- Consider where in the transport system you should plan for e-bikes and e-scooters
- Use appropriate speed limits that align with safe system
- Separate from both motor vehicles and pedestrians where possible/necessary

# Thank you!

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