

wilsonselfstorage

**SAFE CYCLING**

**it's at the intersection of safety, law and design**

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**An interdisciplinary research approach combining injury prevention, legal and design to create, develop and evaluate solutions for safe cycling.**

# SAFE CYCLING

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**Dr Robbie Napper** - Deputy Director, Mobility Design Lab. Monash University.

**Dr Marilyn Johnson** - Senior Researcher, Institute of Transport Studies. Monash University.

**Dr Vanessa Johnston** - Senior Lecturer, Law. RMIT Graduate School of Business and Law.



**HUMANISING CYCLISTS**

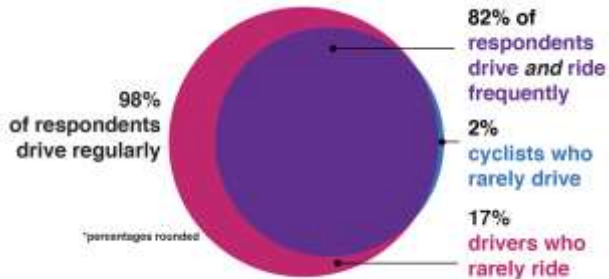
**LEFT TURNS**

**EFFECTIVE SAFETY**

## Alpine context

## What is road sharing?

## Finding common ground





**These are both vehicles.**

**They are both being driven by people who are aiming to enjoy vehicular tourism experiences.**

**Perhaps we can encourage them to communicate to each other?**





**LIVE  
DRIVE  
RIDE**

---

**like a local**

**HUMANISING CYCLISTS**

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**Main points:**

**What is  
turning?**

**From a safety,  
legal or design  
perspective?**

**Why is this so  
complex?**

**5D problem:**

**Space**

**Time**

**Law**



# 141(2)

**The rider of a bicycle must not ride past, or overtake, to the left of a vehicle that is turning left and is giving a left change of direction signal.**

## approach

A driver must indicate for long enough to give sufficient warning to other people on the road including other drivers, riders, cyclists and pedestrians RR 46

Some Road Rules suggest that indicating for at least 5 seconds provides sufficient warning about a change in direction RR 46(3)

# this is turning left

This infographic describes what happens when a driver wants to turn left and they are sharing the road with a cyclist who is travelling straight.

The Road Rules govern all road users, including people who drive vehicles on Victorian roads. Unless stated otherwise, 'drivers' include drivers, motor vehicles, riders, motorcycles, and cyclists/bicycles, RR 15, 17, 19

## cyclist

A person riding a bicycle

### straight

A person riding a bicycle

A person riding a bicycle must not cause a hazard or obstruct other vehicles RR 253

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## turning driver

A person causes their vehicle to turn

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# 2

## indicating (left)

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# 1

## giving way

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## prepare

A cyclist must

- ride as near as practical to the left side of the road RR 129
- ride in a bicycle lane (if provided) unless it is not practical to do so RR 247, 153(4), 247

A cyclist must not cause a hazard or obstruct other vehicles RR 253

## prepare

A driver must

- drive as near as practical to the left side of the road RR 129
- give way to other motor vehicles and bicycles when changing the direction of their motor vehicle, such as
  - changing between marked lanes RR 148
  - moving to the left within a marked lane RR 148A

A driver must not drive in a bicycle lane, unless permitted RR 153. For example, a driver is permitted to drive in a bicycle lane for up to 50 metres prior to turning left RR 158

- give way to other motor vehicles and bicycles when changing the direction of their motor vehicle, such as
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**HUMANISING CYCLISTS**

**LEFT TURNS**

**EFFECTIVE SAFETY**



**Road interactions are 5D**

**Spatial: x-y-z of 3D space**

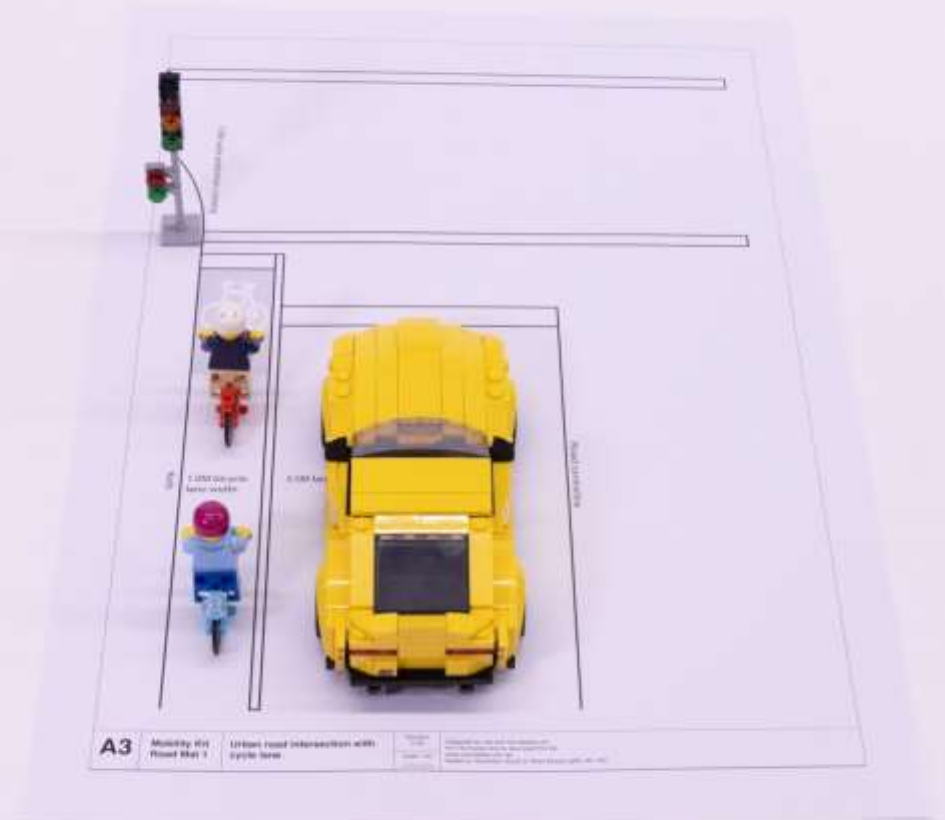




Road interactions are 5D

Spatial: x-y-z of 3D space

Temporal: time dimension



Road interactions are 5D

Spatial: x-y-z of 3D space

Temporal: time dimension

Road rules

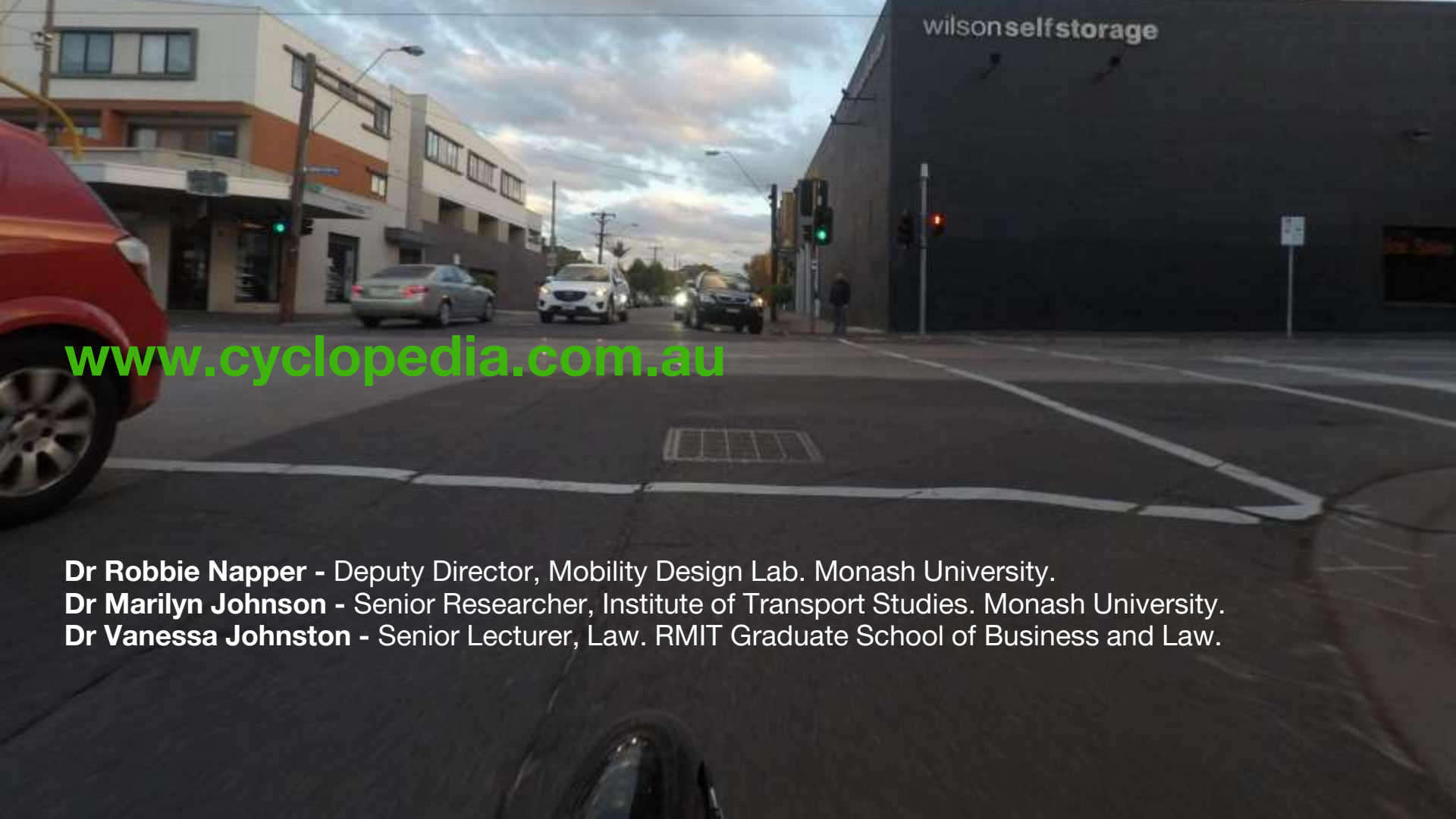




# TAKE HOME MESSAGES: Safety, Law, Design

Interdisciplinary approach is not a “nice to have” but essential for discovering the whole problem and doing something impactful about it.

Who are you going to call?  
Which Lawyer?  
Which Designer?  
Which Safety Scientist?



[www.cyclopedia.com.au](http://www.cyclopedia.com.au)

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**Call for participants:**

## **Active and Micromobility Graduate Research Industry Program.**

Monash University *Graduate Research Industry Programs (GRIPs)* are joint ventures between Monash and industry, co-funding the next generation of PhD research through scholarships into a single theme. We're actively seeking industry partners, key to the offer is that the scholarship costs are evenly split between industry and Monash.