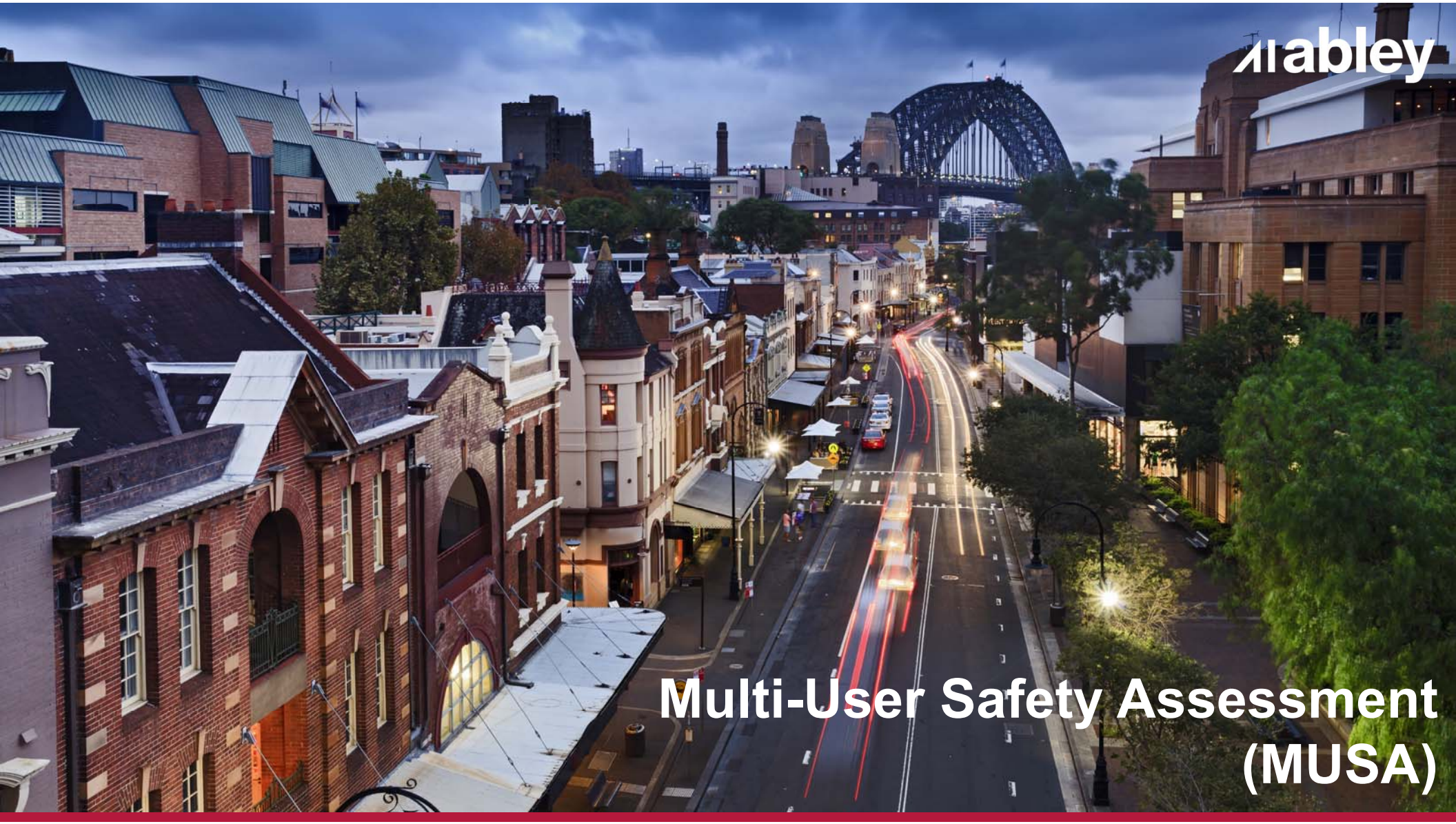
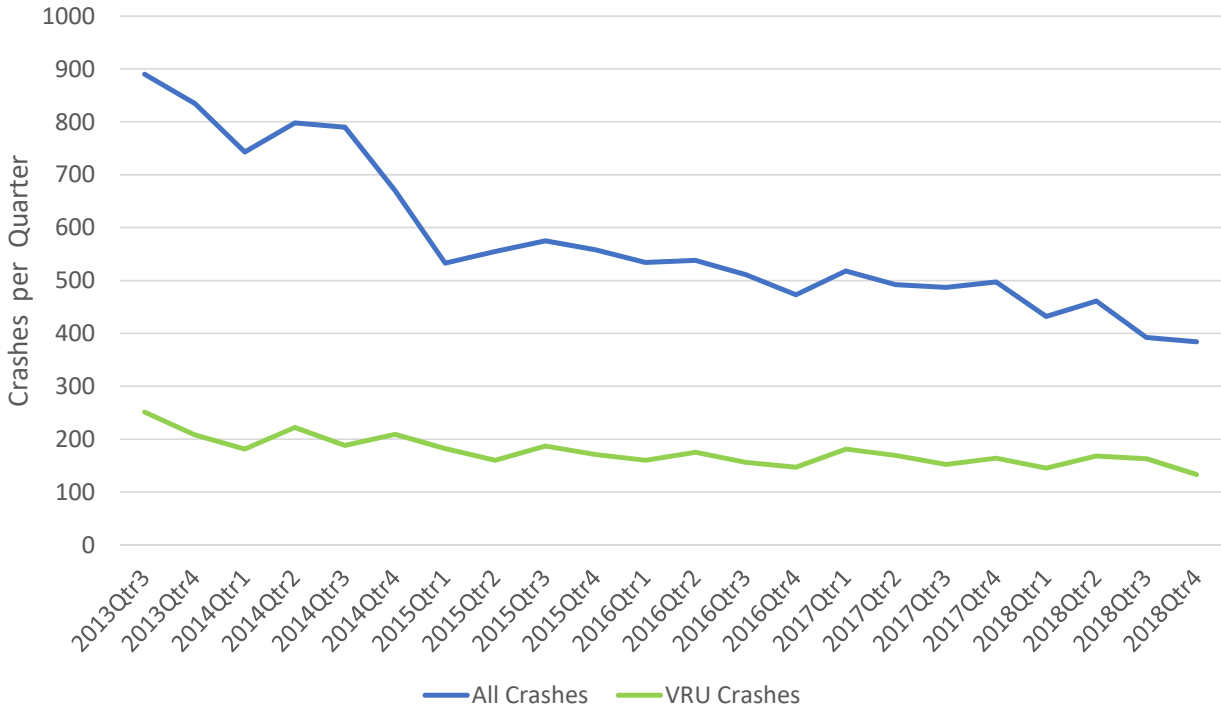

ableyMulti-User Safety Assessment
(MUSA)

Acknowledgements

Joseph Le and the Centre for Road Safety team at Transport for New South Wales

Sydney crash data

- All crashes reduced by 57% from 2013 3rd quarter to end of 4th quarter 2018
- VRU crashes reduced by 47% for the same period
- By the end of 2018 35% of all crashes were VRU crashes



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Crashes resulting in death and serious injuries

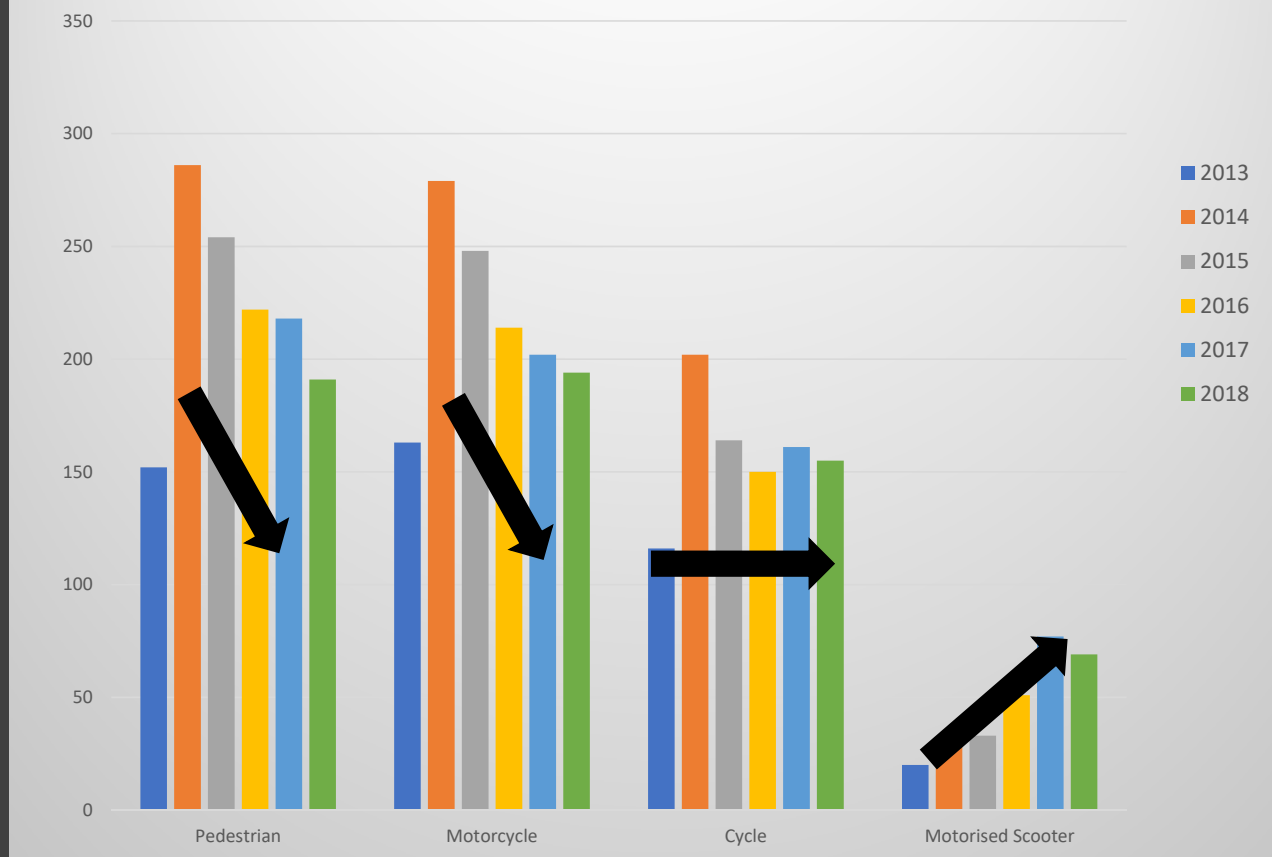
40%

vs.

9%

VRU crash trends

- Pedestrian and motorcycle crashes are reducing
- Pedal cycle crashes are constant
- Motorized scooter crashes are increasing



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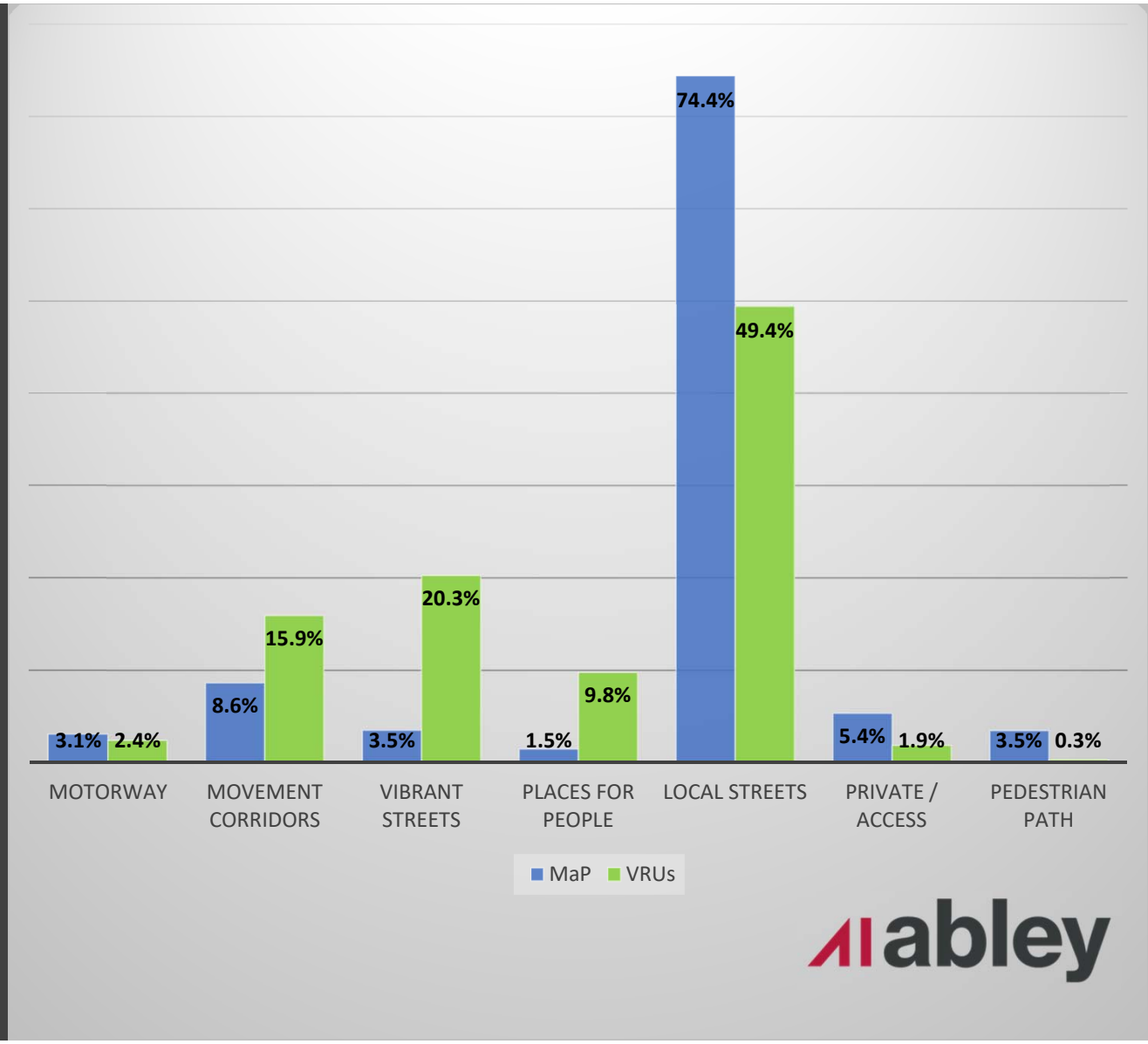
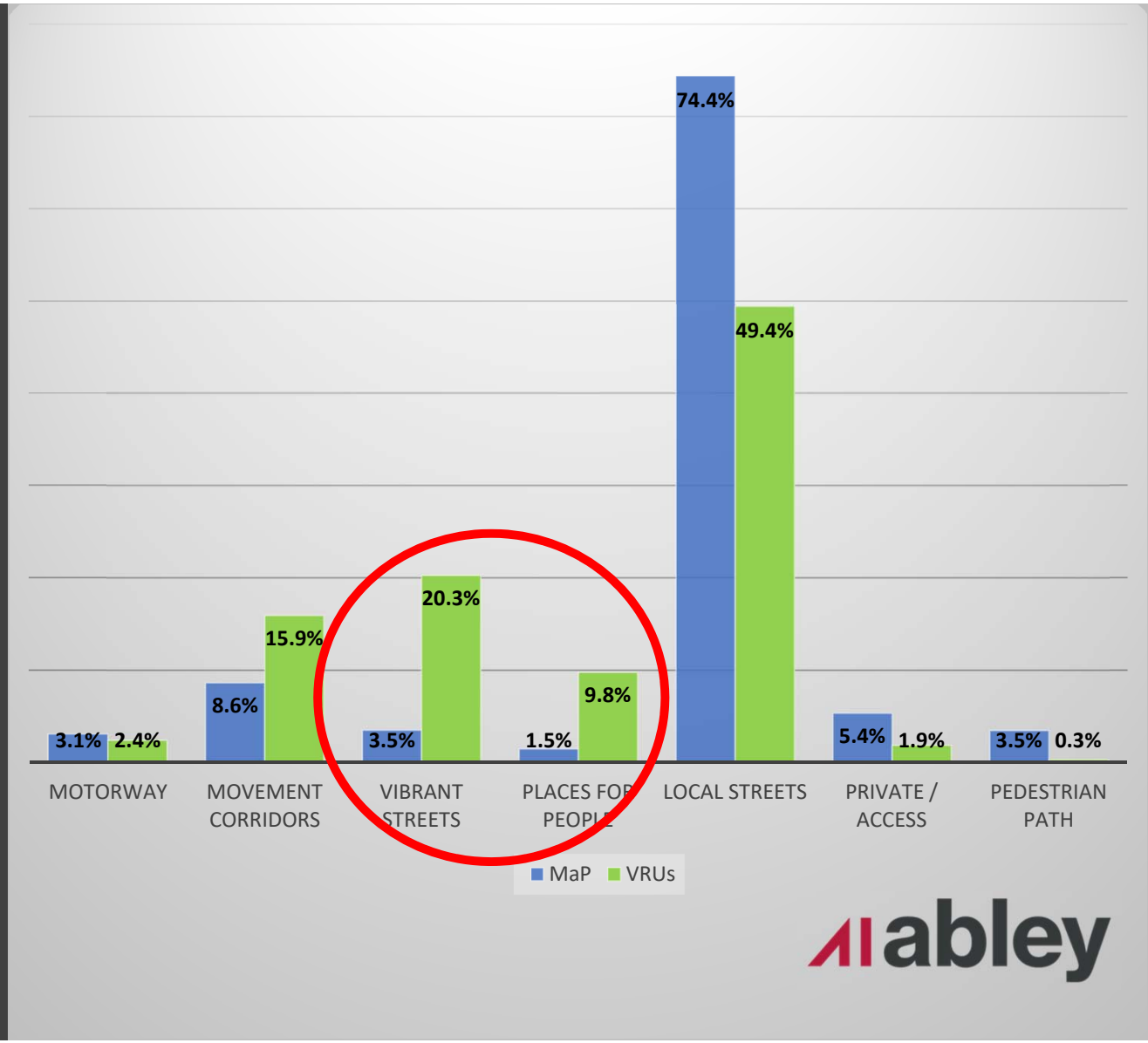
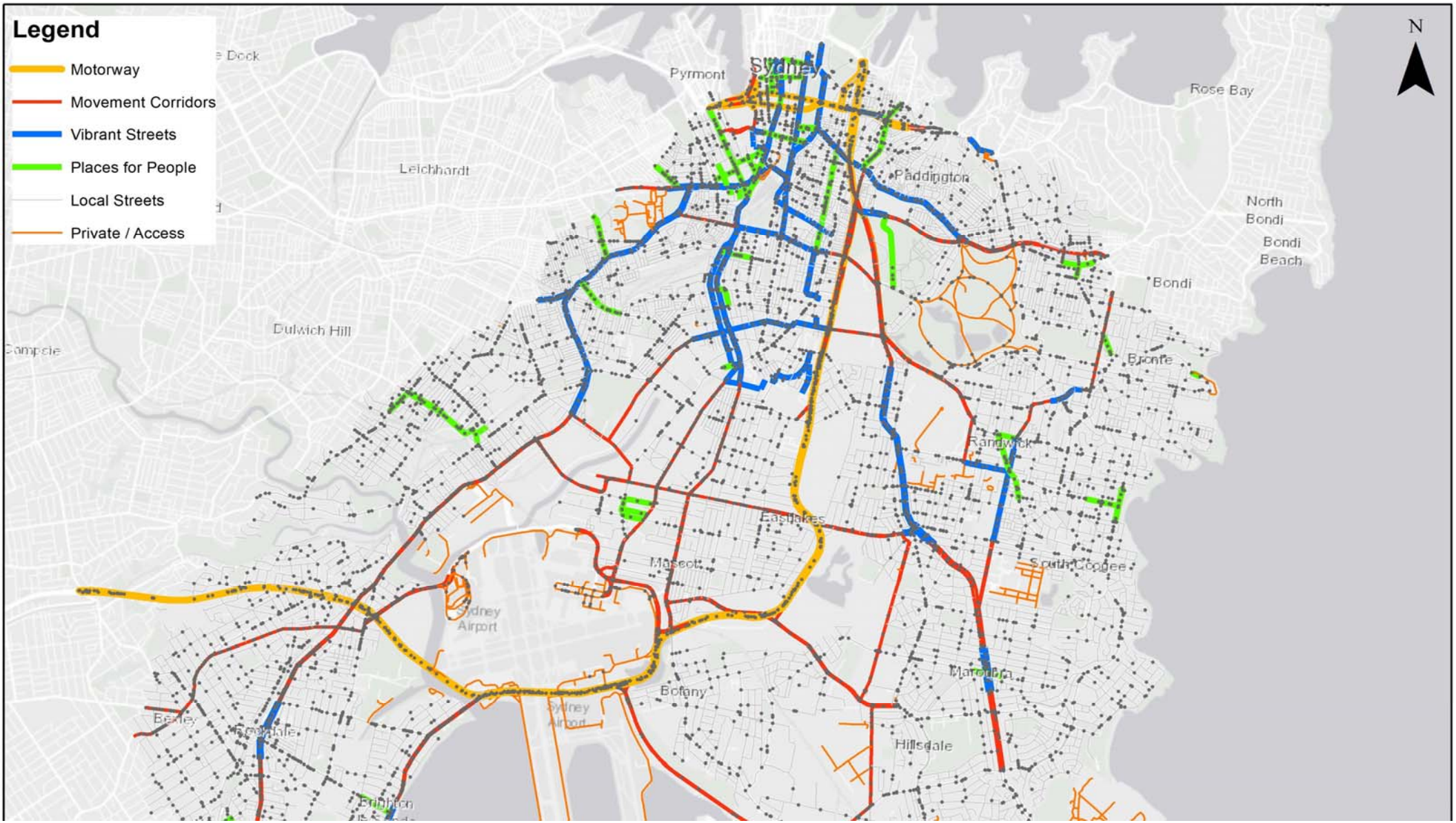
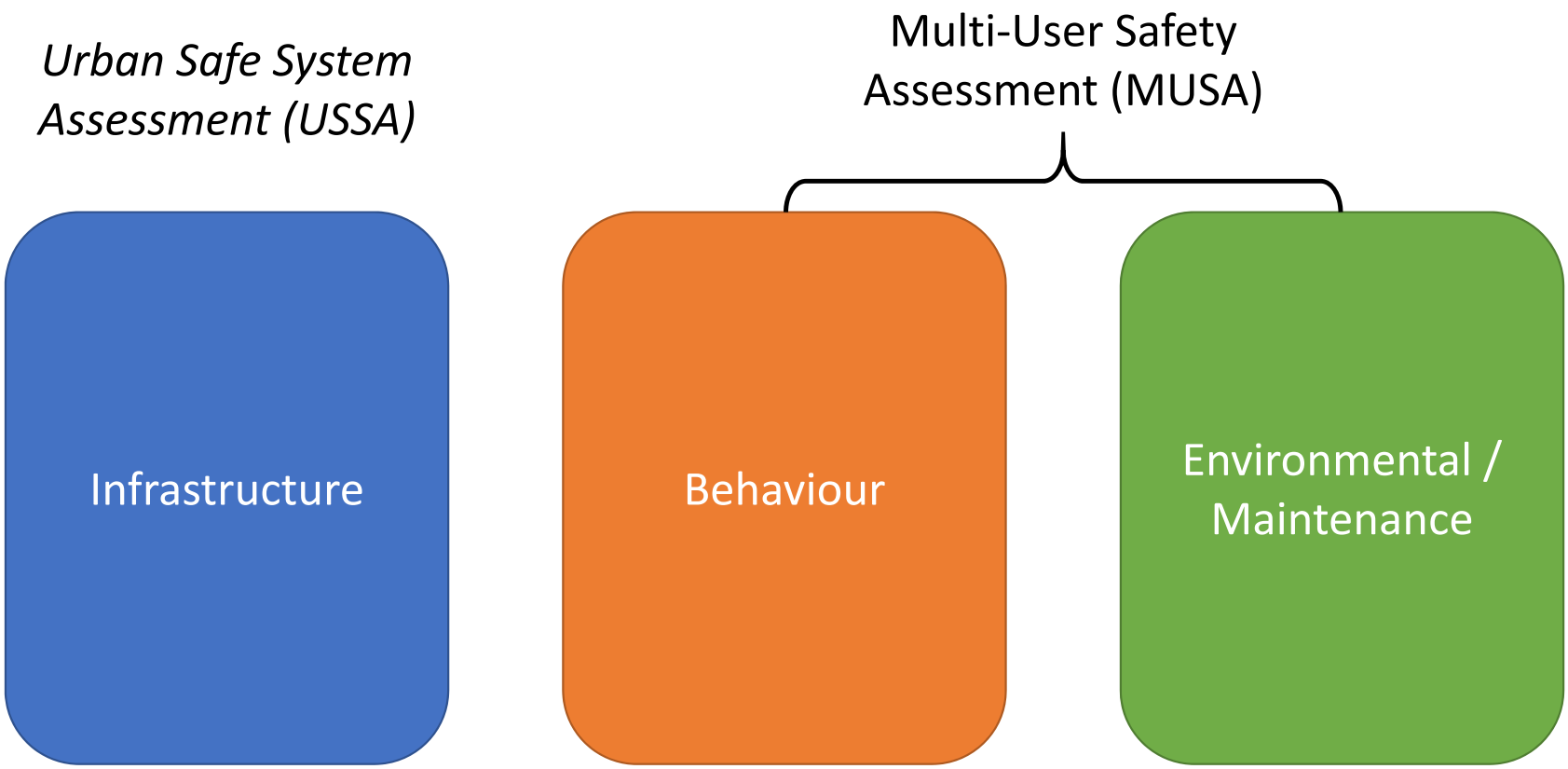
Where are crashes happening?

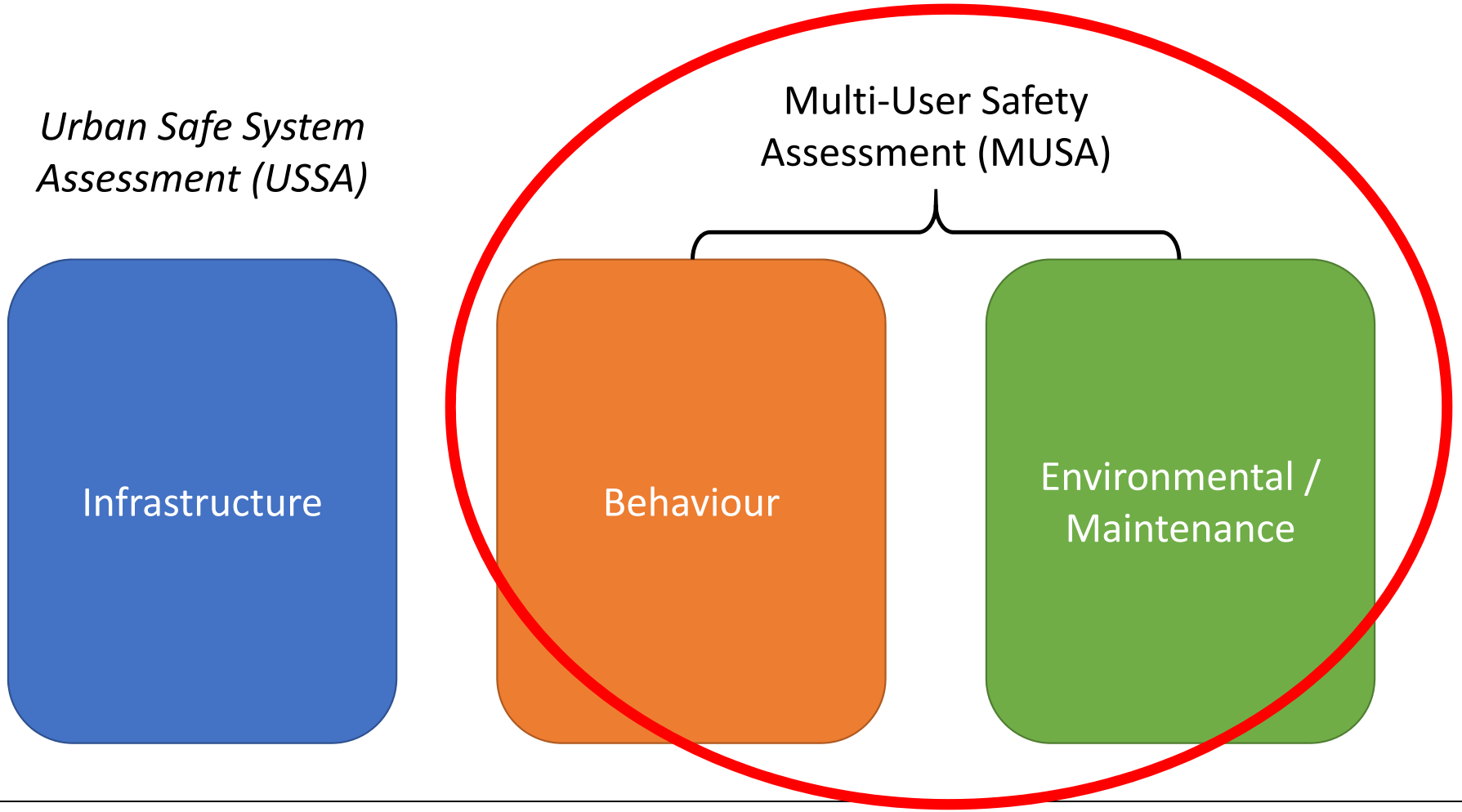


Where are crashes happening?




Legend
Motorway
Movement Corridors
Vibrant Streets
Places for People
Local Streets
Private / Access
N
Pyrmont
Sydney
Rose Bay
Lelchhardt
Paddington
North Bondi
Bondi Beach
Bondi
Dulwich Hill
Bronte
Randwick
Eastlakes
Mascot
South Coogee
Sydney Airport
Botany
Maroubra
Hillsdale
Brighton


Urban Safe System Assessment (USSA)
Multi-User Safety Assessment (MUSA)
Infrastructure
Behaviour
Environmental / Maintenance


Urban Safe System Assessment (USSA)
Multi-User Safety Assessment (MUSA)
Infrastructure
Behaviour
Environmental / Maintenance

Multi-User Safety Assessment (MUSA)

MUSA

- Builds off safety auditing practices
- Structured approach, to ensure assessments can be compared
- But flexibility to ensure issues aren't missed
- Requires auditors to go on site, generally more than once

Minimum assessment considerations

- Desire lines not aligned with supporting infrastructure
- Sight lines
- Trip hazards
- Markings / signage
- Impact of parking/bus stops/loading activities
- Tactile paving
- Pavement condition

Assessment

Risk

- **Extreme**
- **High**
- **Medium High**
- **Medium**
- **Low-Medium**
- **Low**

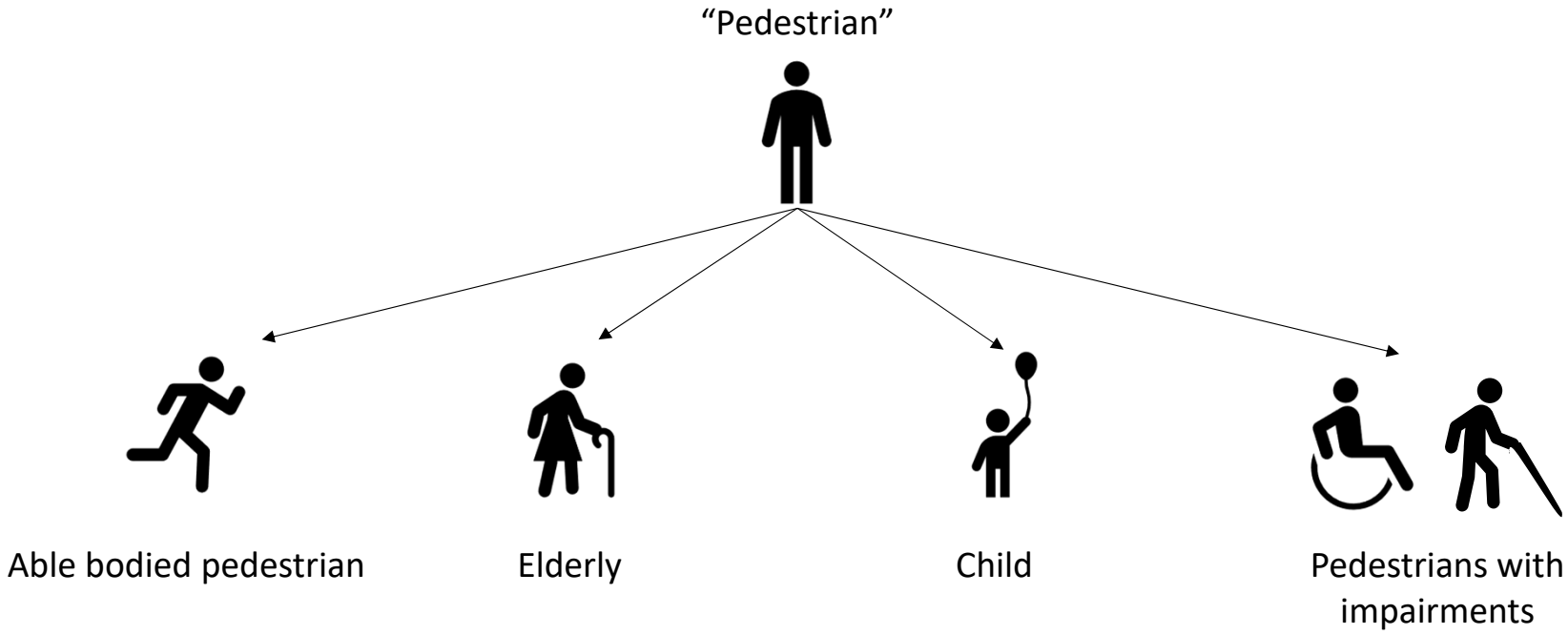
Observation Type

- Maintenance
- Behavioural

Multi-User

"Pedestrian"

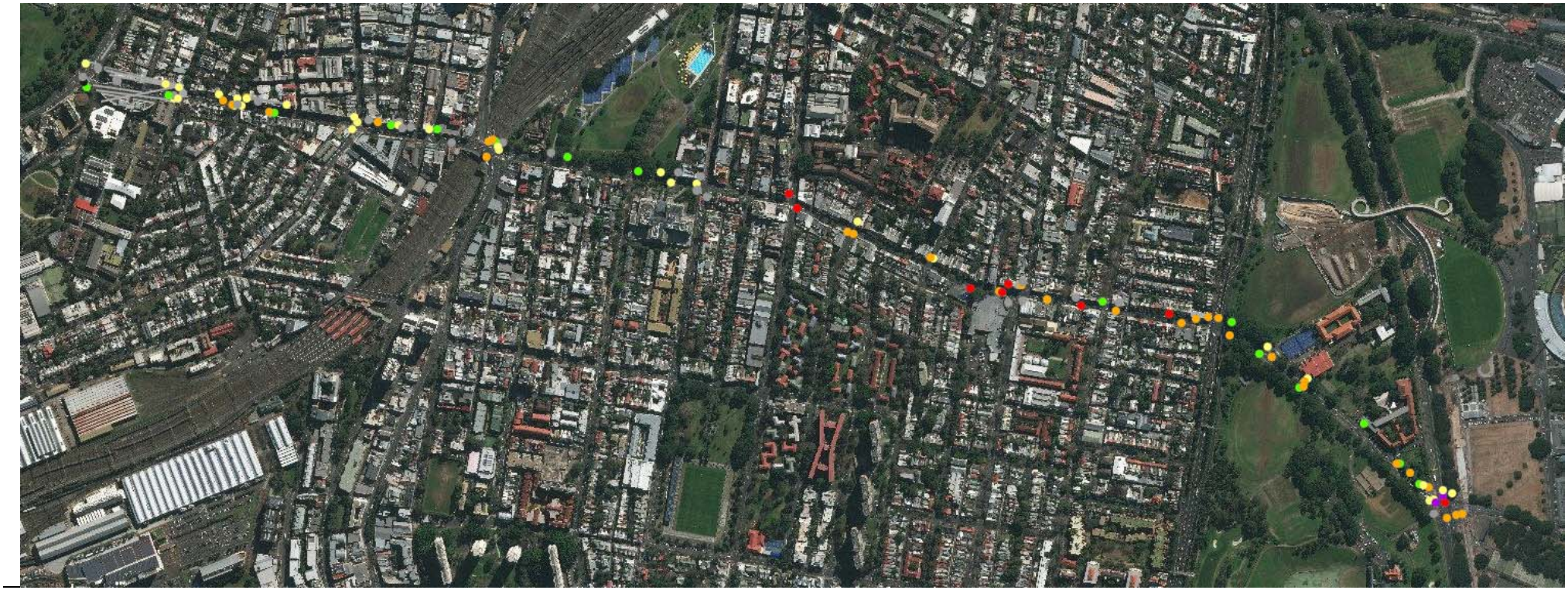
Multi-User


"Pedestrian"
Able bodied pedestrian
Elderly
Child
Pedestrians with impairments

User's selected for case study

- Able bodied pedestrian
- School children
- Impaired pedestrian
- Cyclists
- Micro-mobility
- Motor vehicles

End result



Outcomes

- Able to prioritise corridors which have higher number of **medium high**, **high** or **extreme** ratings
- Can build mass action programmes to address issues affecting a particular user type or issue
- Tool enables other, “non-safety” projects to quickly identify minor safety improvements that could be incorporated
- Can inform maintenance programme

Lessons learnt

- No matter how much data is available, it is so important to get out on site and physically observe


SCHOOL ZONE
8 - 9 30 AM
2 30 - 4 PM
SCHOOL DAYS
40
ENTRY
Cleveland St


SCHOOL ZONE
8 - 9 30 AM
2 30 - 4 PM
SCHOOL DAYS
40
ENTRY
Cleveland St


SCHOOL ZONE
8 - 9 30 AM
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SCHOOL DAYS
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SCHOOL ZONE
8 - 9 30 AM
2 30 - 4 PM
SCHOOL DAYS
40
ENTRY
Cleveland St


INVINCIBLE
SCHOOL ZONE
8 - 9 30 AM
2 30 - 4 PM
SCHOOL DAYS
40
ENTRY
Cleveland St

Lessons learnt #2

- Observations at different times of day are often very important for these vibrant street & places for people

*Dominos alone is targeting more than **2million** e-bike deliveries a year in NSW*

Source: https://www.smh.com.au/national/nsw/inside-the-helter-skelter-world-of-food-delivery-bike-riders-20190812-p52g5z.html

Opportunities

- Can adjust the minimum assessment considerations as desired e.g. widen to include infrastructure
- Can adjust the users types assessed e.g. break down the types of cyclists

Thank you!

Contact

Bridget Carden
Senior Transportation Engineer
www.abley.com

bridget.carden@abley.com
027 285 3325

abley