KiwiRAP The Next Evolution

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Evolution of Road Assessment Programmes



Now in 80 Countries



KiwiRAP Progress



Effectiveness: Collective Risk



National Collective Risk

Recognition and Awards



Where to Next: Deaths and Serious Injuries



Trends



Where to Next

Roads and Roadsides actions:

 Extend risk-targeting programmes and models to local urban roads, with a focus on <u>mixed use arterials and areas</u> <u>posing particular risks for active road</u> <u>users, such as pedestrians and cyclists</u>.

2) Target High Risk Intersections



Next Evolution



Urban KiwiRAP:

 Focus is on urban networks <u>but</u> includes local rural roads within those RCAs

Urban KiwiRAP

Two components of a risk assessment model:

- Intersection component
- Corridor component









Example Risk Maps: Auckland



Example Risk Maps: Auckland







Dunedin Examples







Pilot Results: Intersections

Region	Number (Proportion) of High-Risk Intersections	Proportion of Intersection Injury Crashes	
Auckland	217 (1.4%)	1,769 (17.4%)	
Tauranga	17 (1.0%)	114 (18.8%)	
Christchurch	81 (1.5%)	792 (24.9%)	
Dunedin	32 (1.1%)	246 (19.6%)	



Pilot Results: Corridors

Region	High-Risk Network by Length	Proportion of Deaths and Serious Injury Equivalents		
Auckland	9.0%	53.7%		
Tauranga	5.4%*	31.0%*		
Christchurch	6.7%	46.7%		
Dunedin	5.5%	46.6%		
AVERAGE	6.7%			

* The Tauranga results are proportion of injury crashes not DSI's



How are the risk maps being used?

- Safety improvement prioritisations
- Better business case development
- Land-use planning
- Resource consents
- Public enquiries
- Cycle network planning
- Contractor Health and Safety planning
- Passenger transport route issues
- Enforcement prioritisation
- Etc...



Next Step: Star Ratings Trial NZ Video Surveys underway (Sept-Oct 2014)



Starting Point: Crash Initialisation



Crash Types

			1	
	Vehicle occupant	Motorcyclists	Pedestrian	Bicyclist
Run-off driver-side	✓	✓	✓	
Run-off passenger-side	✓	\checkmark		
Head-on loss of control	✓	✓		
Head-on overtaking	✓	✓		
Intersection	✓	1		\checkmark
Property access	✓	1		
Along			✓	\checkmark
Crossing – inspected road			\checkmark	
Crossing – side road			✓	



Bicyclist SRS Equation



Example: Network Level Maps



Expanding Urban KiwiRAP to other Networks: Collective Risk; Total DSI's



Expanding to Other Urban Networks: DSI/km



ACC Cost



TLA Selection Criteria

- Potential gains
 - Total DSI
 - Crash rate
 - ACC benefits
- Commitment from TLA





To Find Out More:

