



# ASIA

**Movement and Place:  
The ANZ experience**

**Mary Haverland**  
*IPENZ Conference | March 2018*

# What is Movement and Place?



What is Movement and Place?

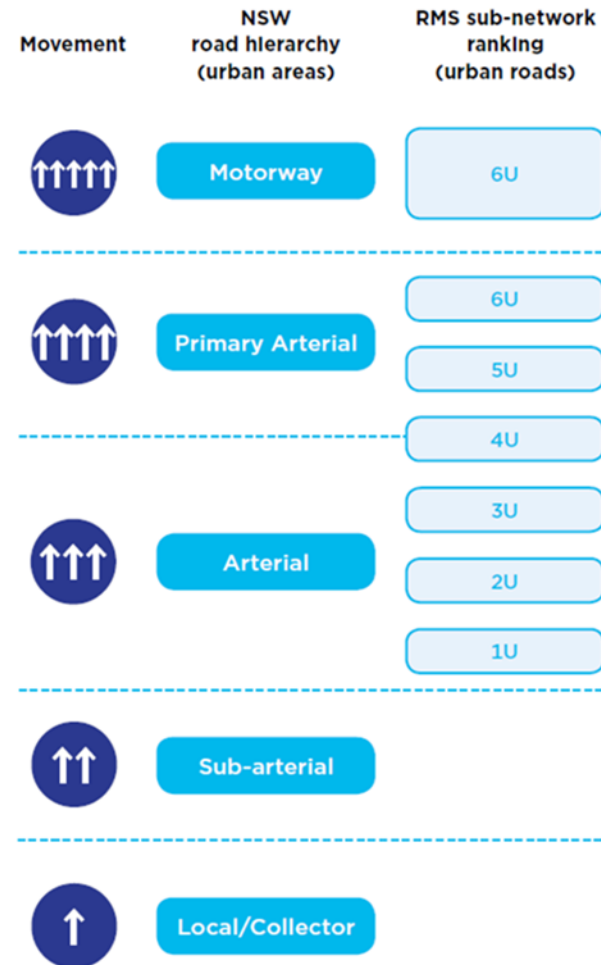




# Separate movement/land use and classify/zone



# Movement and access

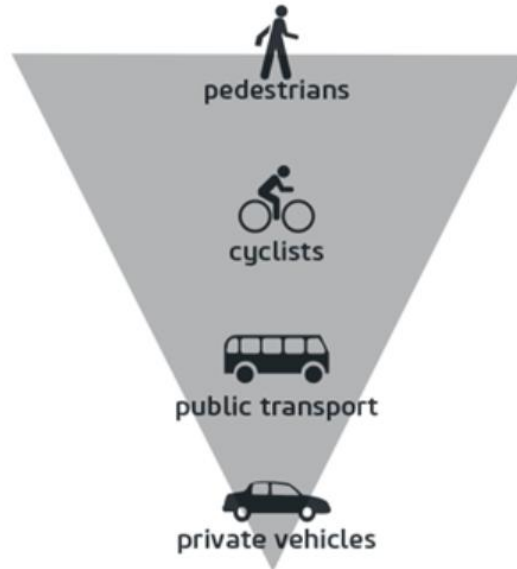




# Designing streets for people








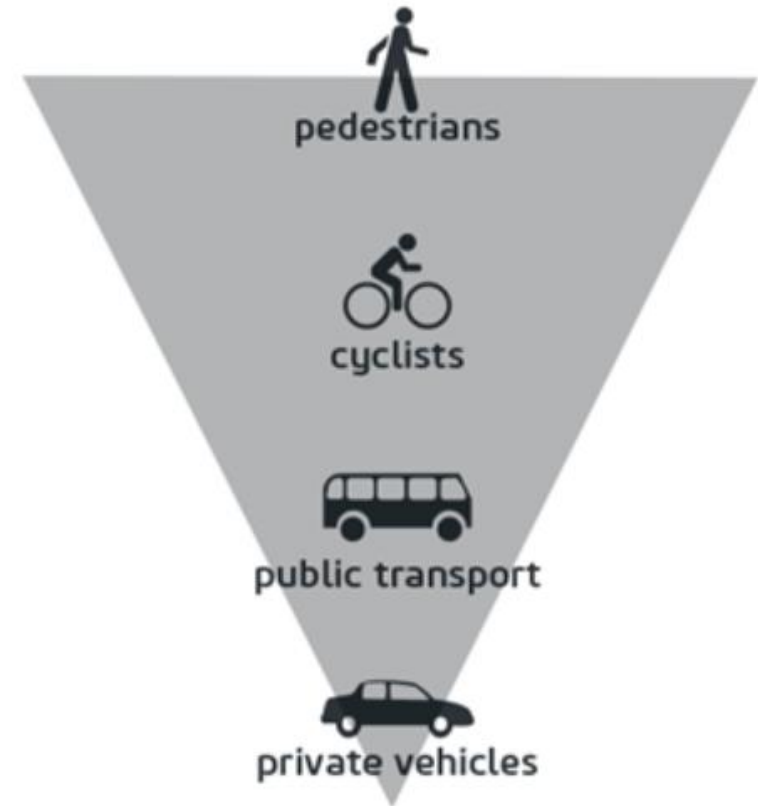
Home zones (UK) /  
Woonerf (Netherlands)



Complete streets  
(USA/Australia)

# Two systems

Movement	NSW road hierarchy (urban areas)	RMS sub-network ranking (urban roads)
	Motorway	6U
	Primary Arterial	6U
		5U
		4U
	Arterial	3U
		2U
		1U
	Sub-arterial	
	Local/Collector	



# Balancing design objectives for all road customers

**Movement** = decrease travel time



**Place** = increase dwell time

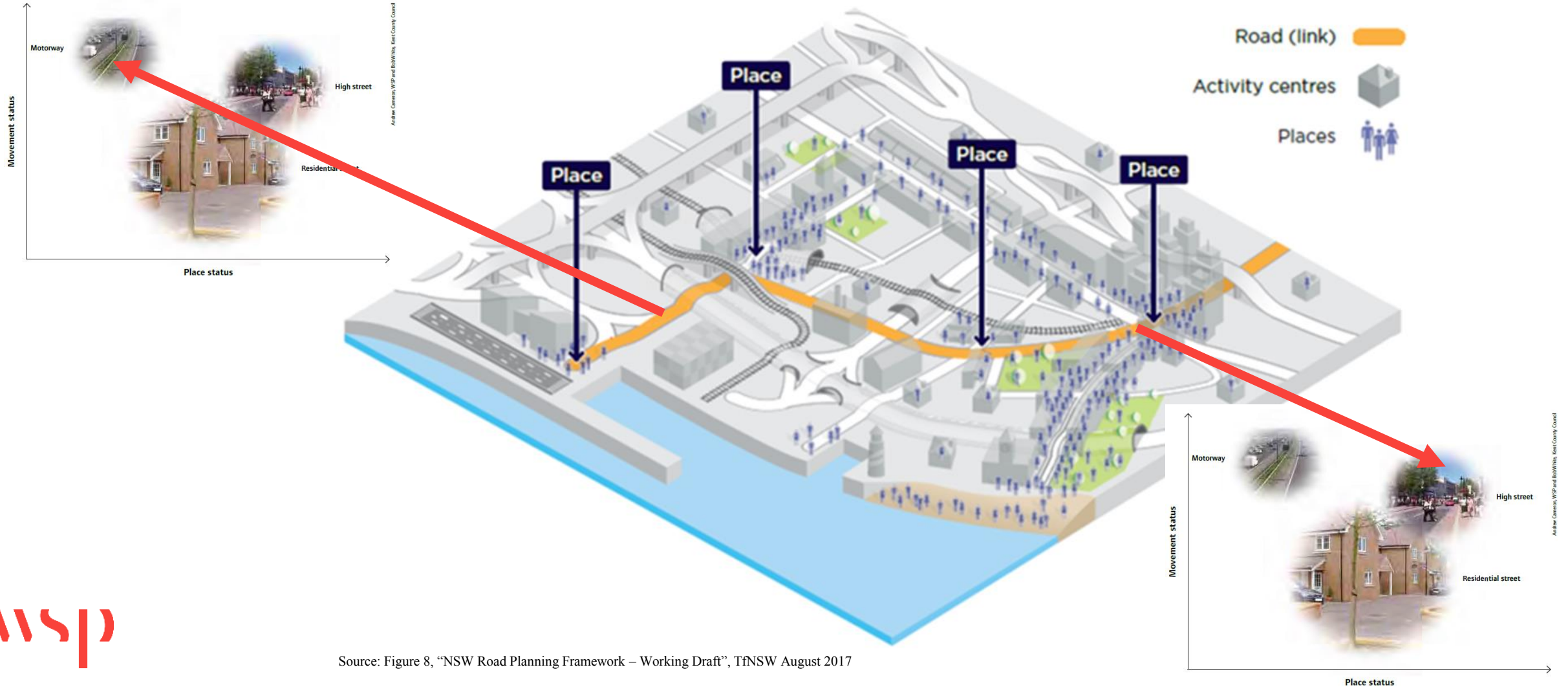




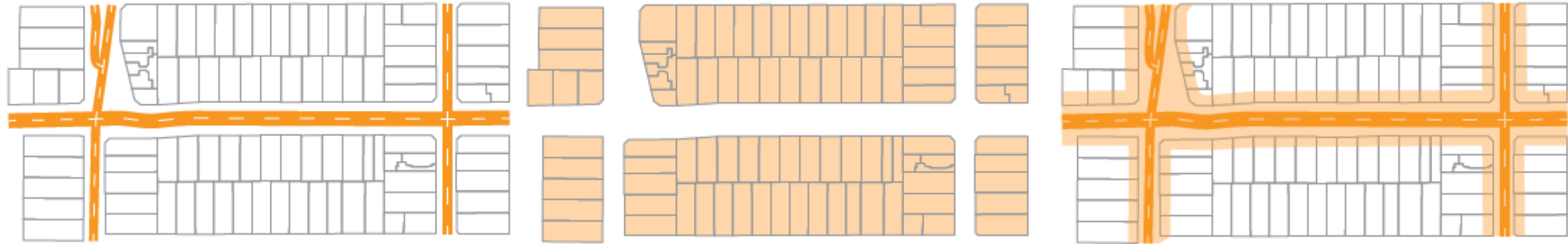
# Streets have a movement and place function



# The street environment can change along a road corridor...and by time of day/week/year....



# Recognising that streets are places too!



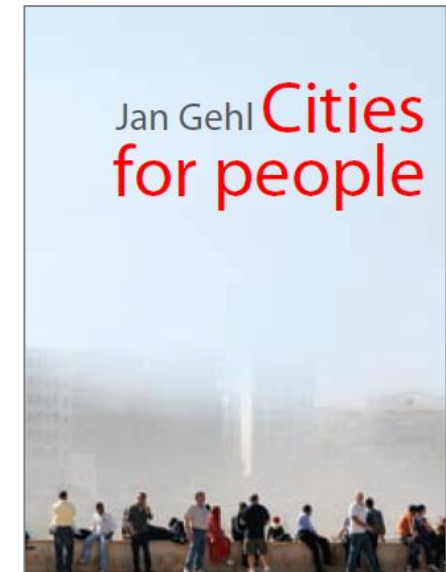
Traditional transport plan

Land use plan

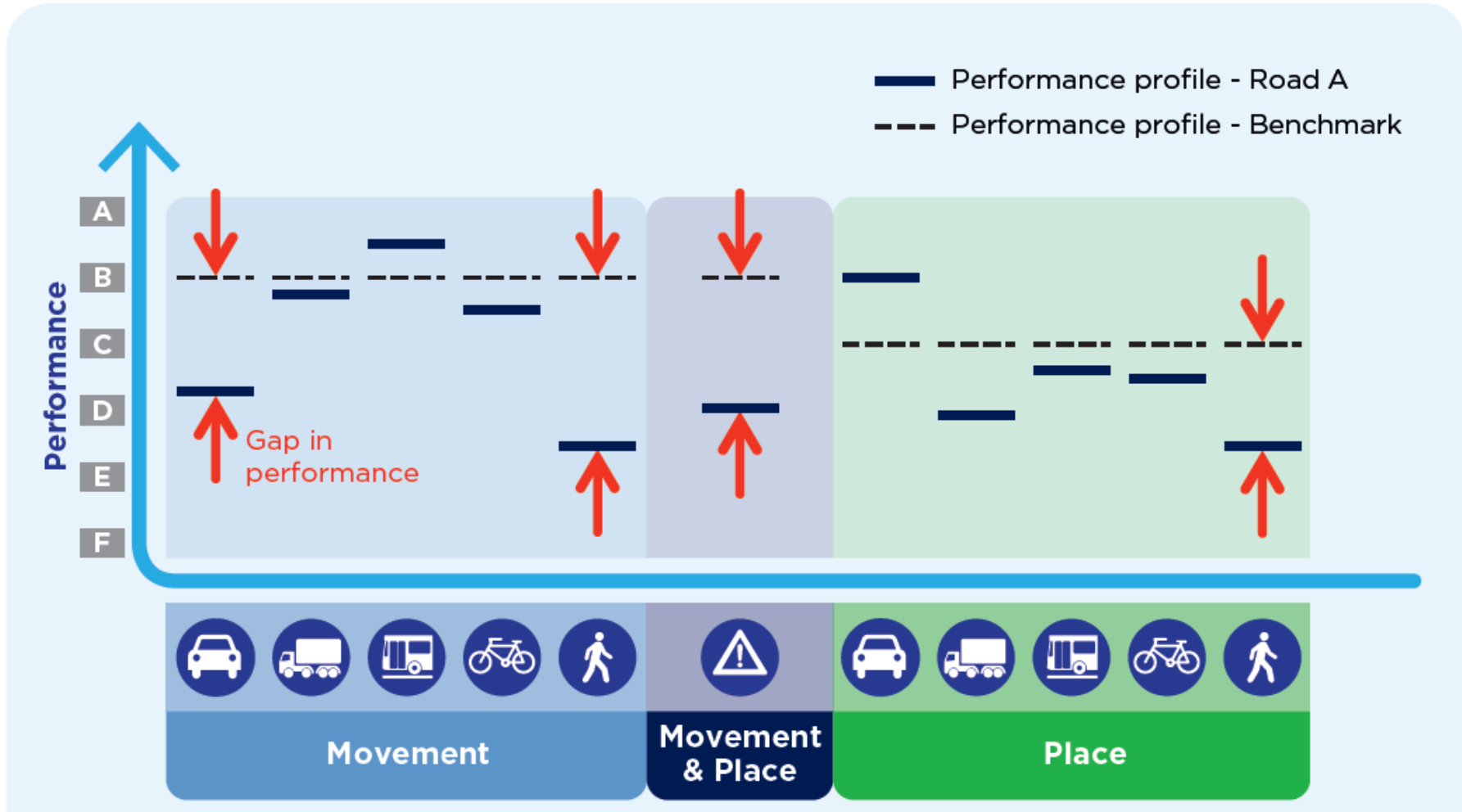
Movement and Place plan



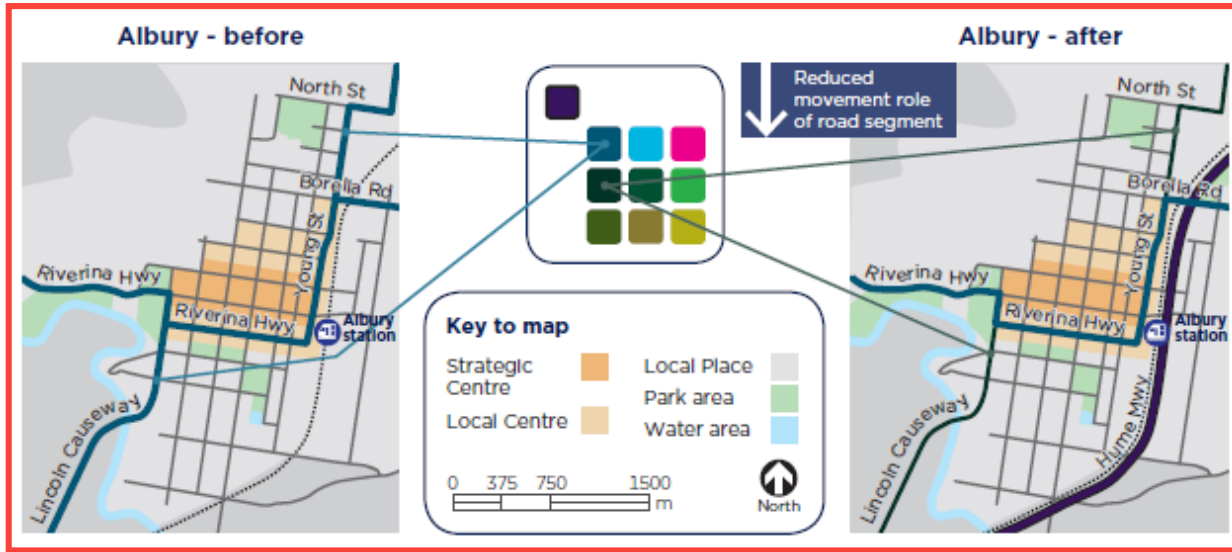
# All customers have a 'movement' and 'place' need



# Framework is evidence based



# Framework enables us to speak the same language

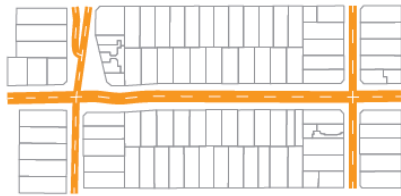


	Segment 1	Segment 2
Road Typology	T1	T1
<b>General traffic - Movement</b>		
LoS Weekday AM Peak	D	D
Weekday Interpeak	E	D
Weekday PM Peak	F	E
Weekday Off Peak	E	E
Weekend Peak	F	D
Weekend Off Peak	D	D
AADT	30500	20,500
TDM Commitment	None	None
Road Classification	5U	5U
Performance assessment	Significantly below	Below

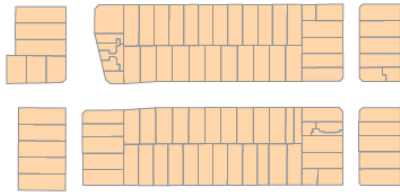


# Movement and Place principles

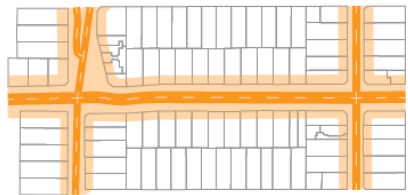
## 1. Streets are places too!



Traditional transport plan



Land use plan

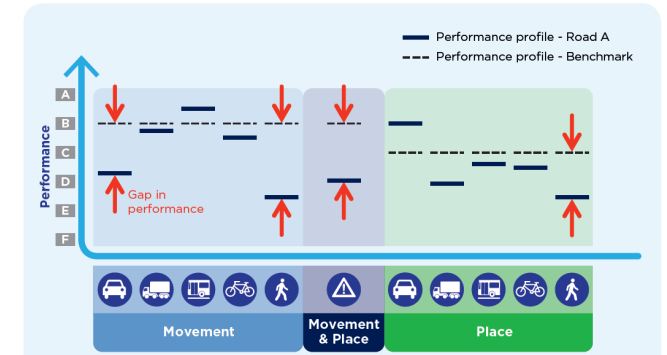


Movement and Place plan

## 2. Consider the needs of all customers



## 3. Frameworks are evidence based



How is Movement and Place  
being used in ANZ?

How is Movement and Place being used in ANZ?

# Movement and Place in Australia and New Zealand

The image features a large red map of Australia and New Zealand. Overlaid on the map are several transport planning documents:

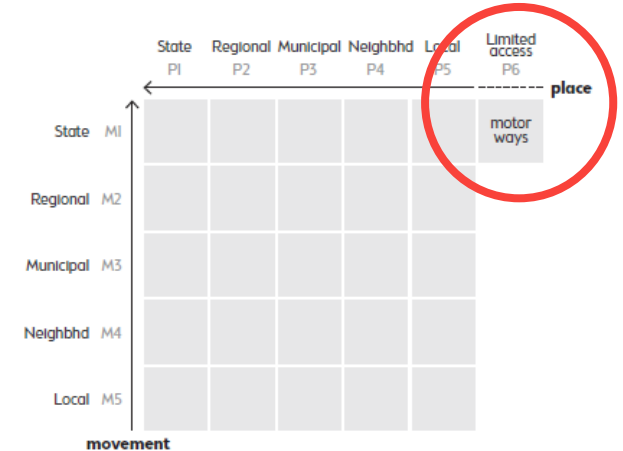
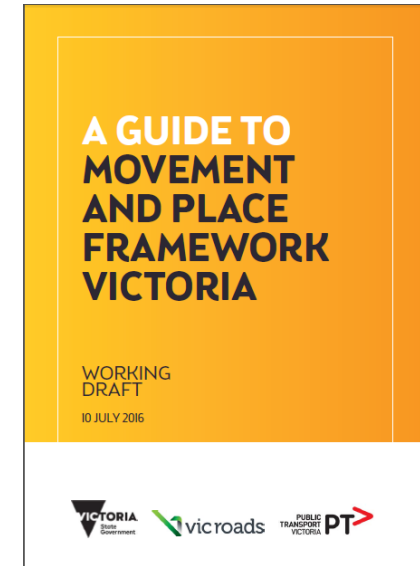
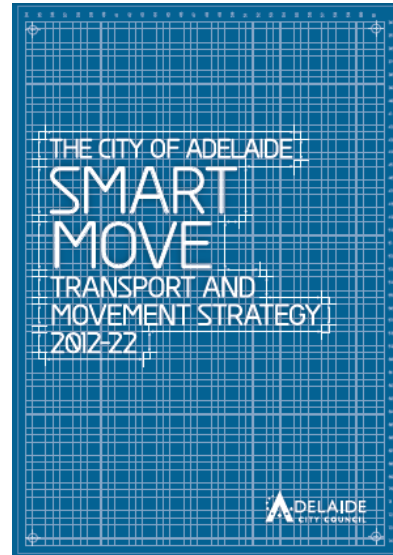
- Perth 2017:** "MOVEMENT AND PLACE ASSESSMENT" prepared for the City of Perth, dated 11 July 2017. It features logos for Intermethod and KPMG.
- Adelaide:** "THE CITY OF ADELAIDE SMART MOVE TRANSPORT AND MOVEMENT STRATEGY 2012-22" with the Adelaide logo.
- Victoria:** "A GUIDE TO MOVEMENT AND PLACE FRAMEWORK VICTORIA" - WORKING DRAFT, dated 10 JULY 2016. It includes logos for Victoria, Vicroads, and PT.
- NSW:** "NSW ROAD PLANNING FRAMEWORK" - FINAL DRAFT FOR DISCUSSION, dated April 2016. It features the NSW logo and an image of a bridge.
- Canberra - ACT:** "Transport for Canberra - ACT Movement and Place Framework" - Draft strategy, dated May 2017. It includes the WSP logo and an aerial view of a city.
- Auckland:** "Draft Roads & Streets Framework" from Auckland Transport, dated 2017. It features the AT logo.

A question mark is positioned on the eastern coast of Australia, and a star is located on the southern coast of Australia.



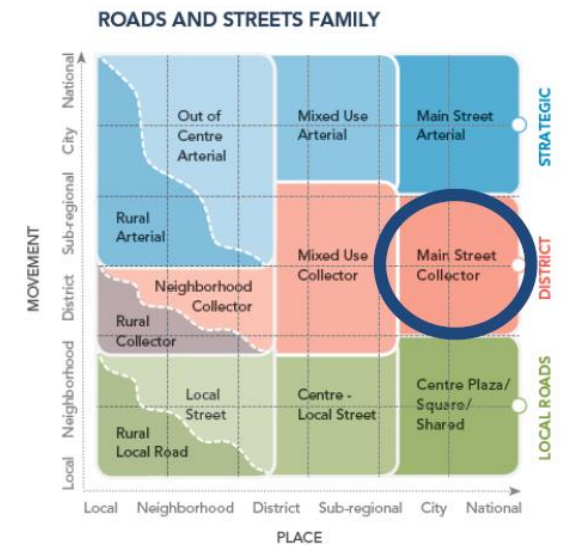
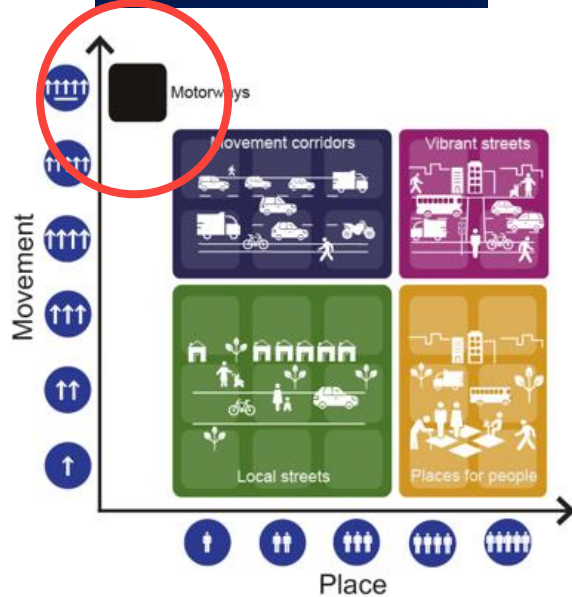
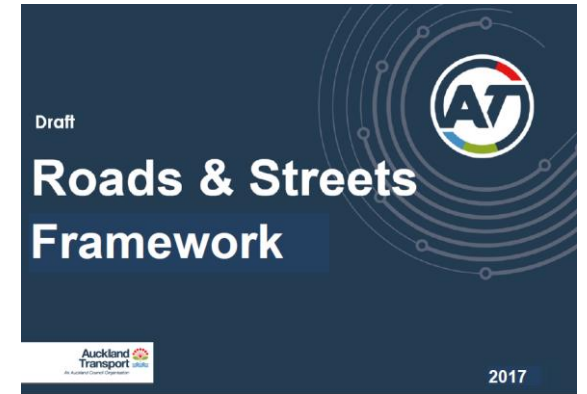
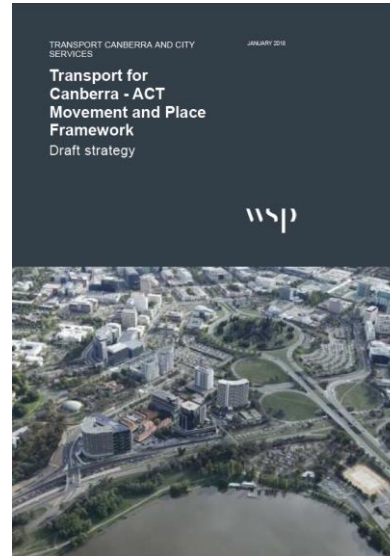
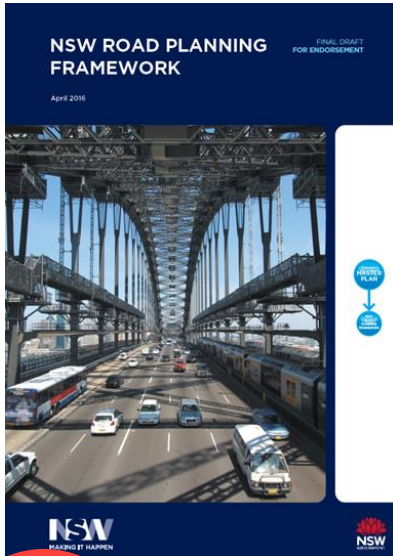
How is Movement and Place being used in ANZ?

# Movement and Place in Australia and New Zealand



How is Movement and Place being used in ANZ?

# Movement and Place in Australia and New Zealand



# Adelaide: Integrated design process

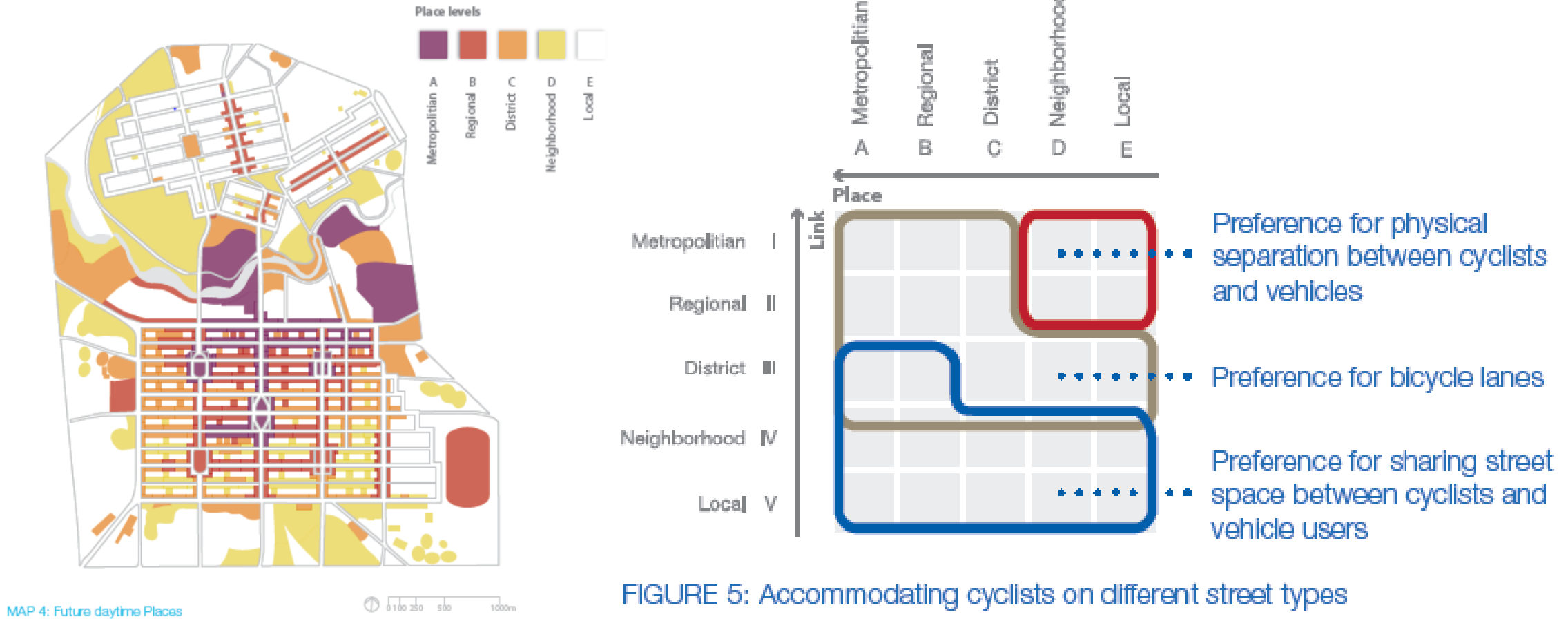
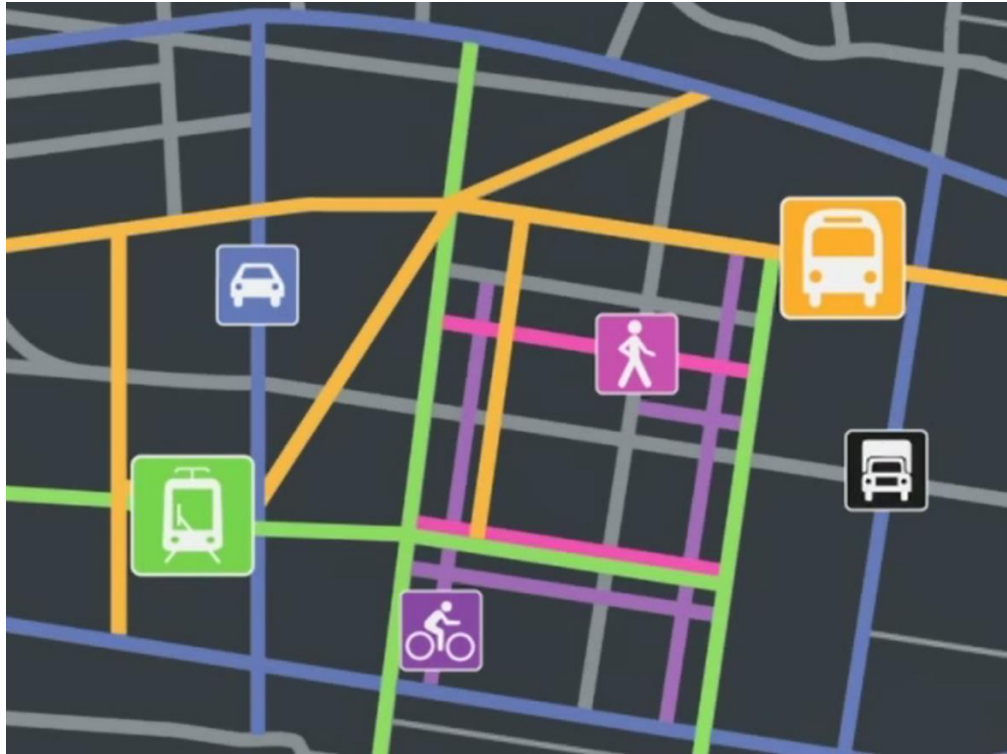








FIGURE 5: Accommodating cyclists on different street types

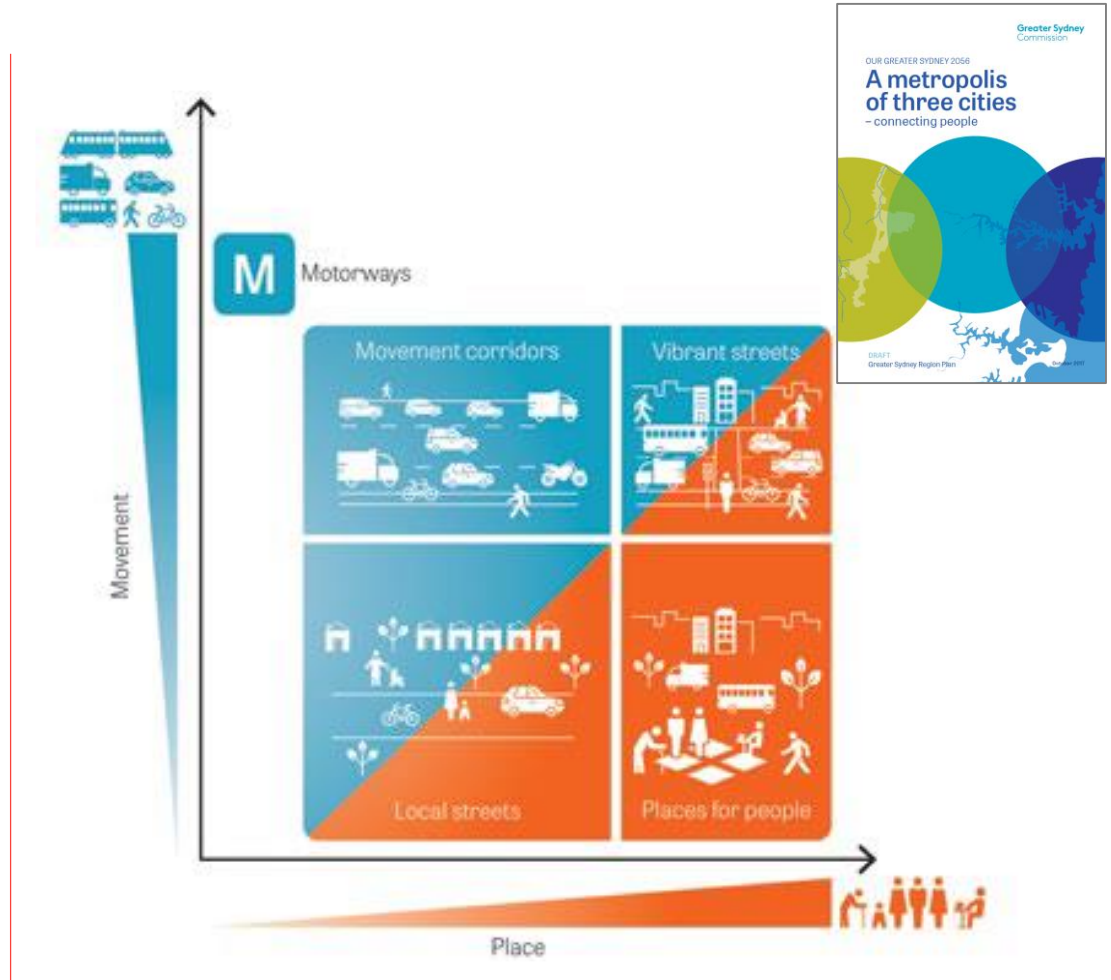
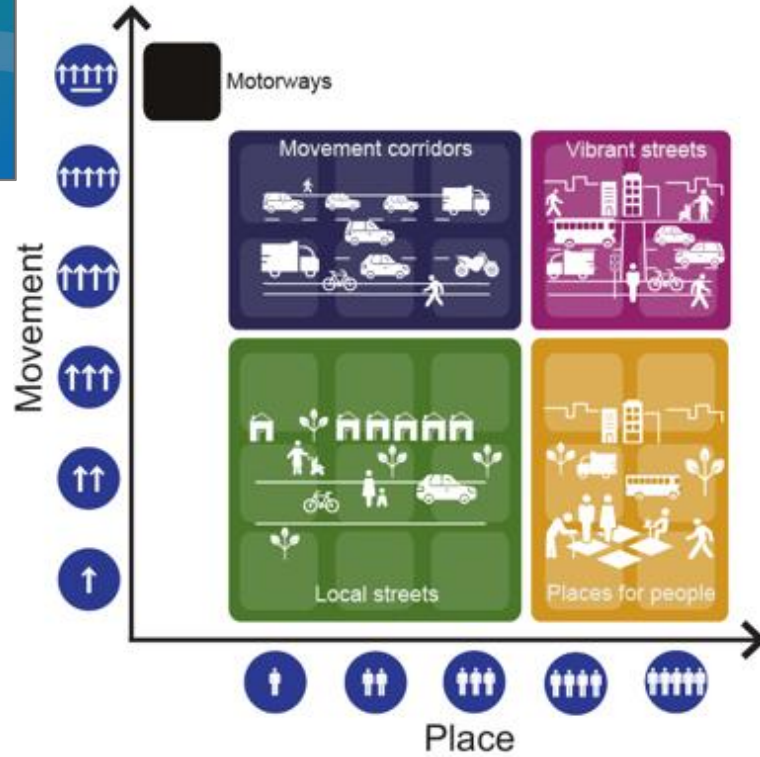


# Victoria: Enhancing SmartRoads Framework

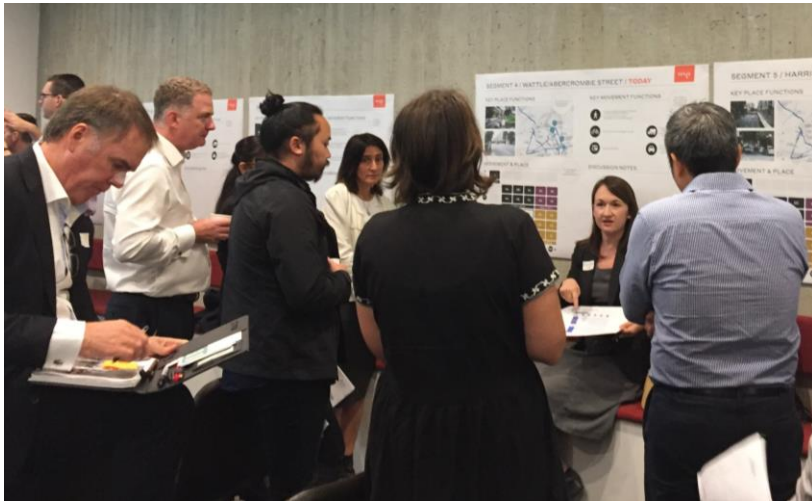


Level of Service	 					
	<b>A</b>	No route delay. Always runs to timetable.	Opportunities to cross within 25m. Minimal crossing delay.	High degree of separation.	No delay. No variability.	No delay. No variability.
<b>B</b>	Minimal route delay and slight manoeuvring restrictions.	Opportunities to cross within 50m. Average crossing delay is 30 sec.	Well separated at midblock with some conflict at intersections.	Minimal intersection delay.	Minimal intersection delay.	
<b>C</b>	Stop at every set of signals. Within 5 min of timetable.	Crossing within 100m. Average crossing delay is 45 sec.	On-road bicycle lane.	Stop at every set of signals.	Stop at every set of signals.	
<b>D</b>	Takes 2 signal cycles to clear intersection.	Crossing within 200m. Average crossing delay is 60 sec.	On-road bicycle lane but no lane approaching major intersections.	Takes 2 signal cycles to clear intersection.	Takes 2 signal cycles to clear intersection.	
<b>E</b>	Takes at least 3 signal cycles to clear intersection.	Crossing within 400m. Average crossing delay is 90 sec.	Bicycles share traffic lanes.	Takes at least 3 signal cycles to clear intersection.	Takes at least 3 signal cycles to clear intersection.	
<b>F</b>	Very low speeds, backups from downstream traffic impacts flow of trams & buses.	Crossing more than 400m. Average crossing delay is more than 90 sec.	No special bicycle facility.	Very low speeds, backups from downstream significantly impacts freight.	Very low speeds, backups from downstream significantly impacts traffic.	

# NSW: Integrating transport and land use at a policy level



# NSW: Benchmarking corridor performance



Objective	Local Street	Place for People	Vibrant Street	Movement Corridor
Improve the environment for	🚶 🚲	🚶 🚲		
Improve facilities for	🚶 🚲	🚶 🚲 🚏	🚶 🚲 🚏	
Improve loading/parking facilities for		🚗 🚚	🚗 🚚	
Improve connectivity and flow for	🚶 🚲	🚶 🚲	🚶	
Improve travel time for		🚏	🚏	🚏 🚗 🚚
Network segments	1 – Johnston 2 – The Crescent 3 – Pyrmont Bridge 4 – Wattle	5 – Harris	6 – Regent/Lee 7 – Broadway	8/9 – Parramatta 10 – Victoria



# Auckland: Complete approach applied to projects

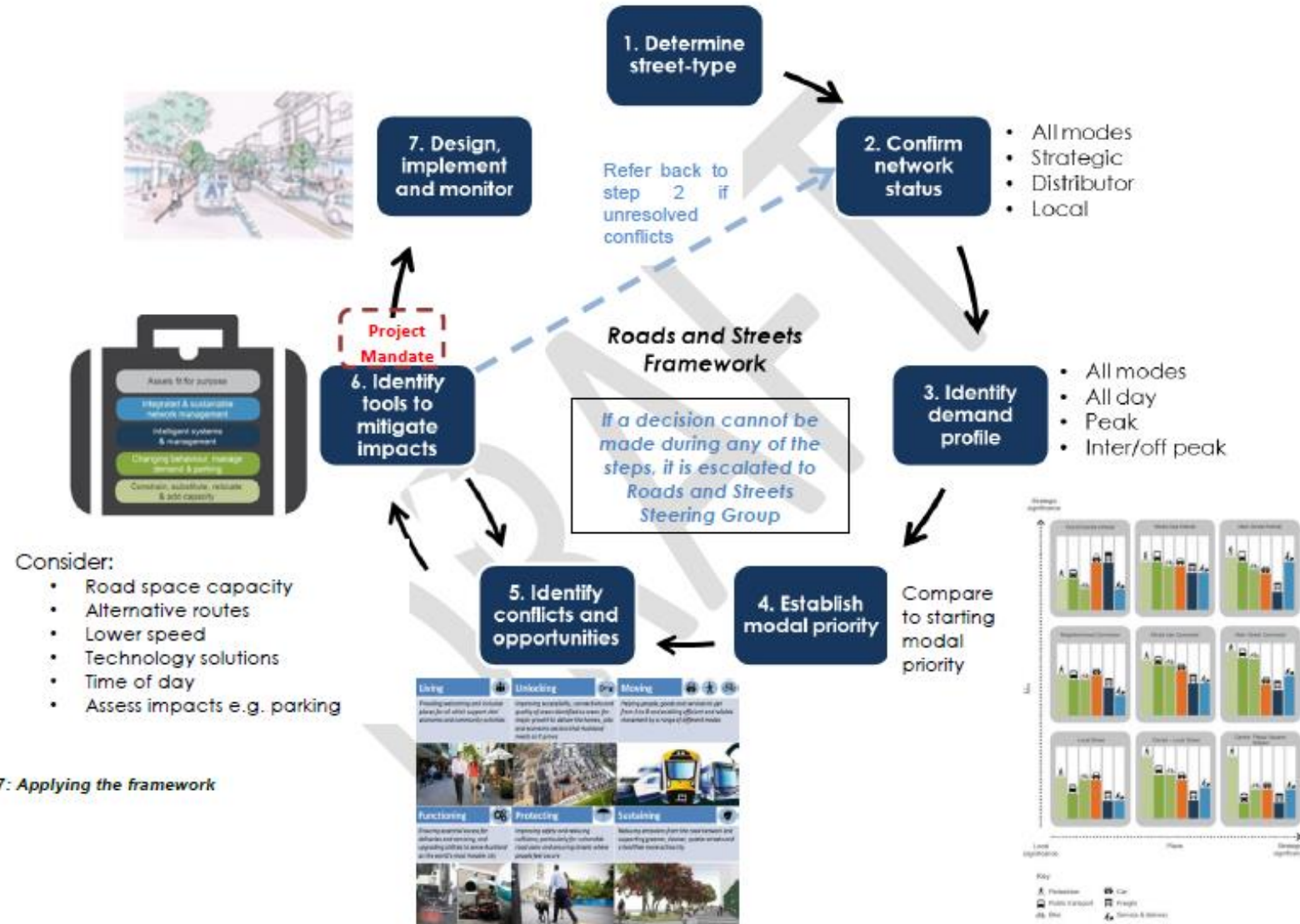
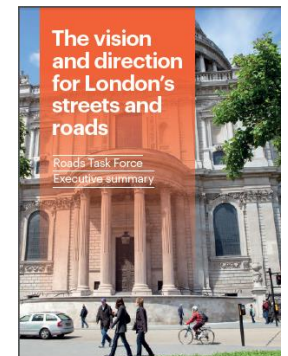
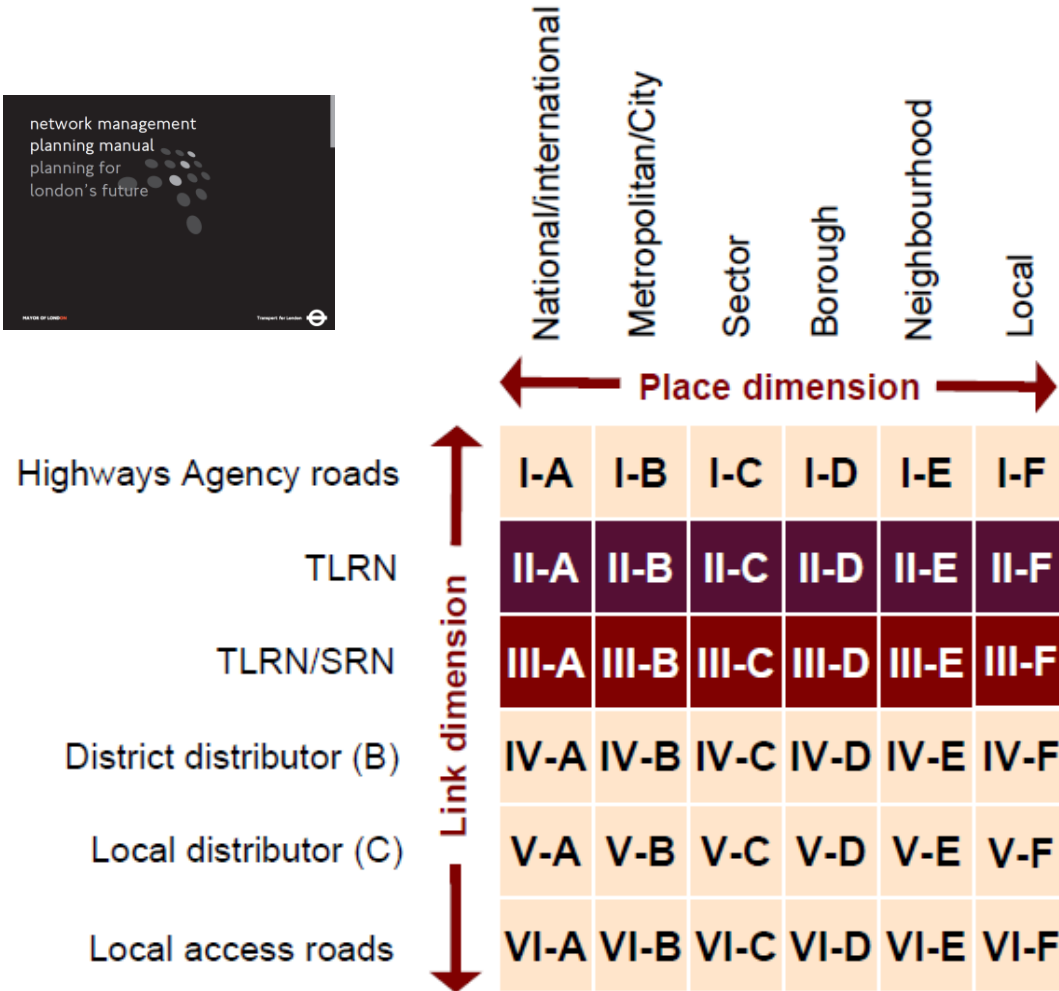
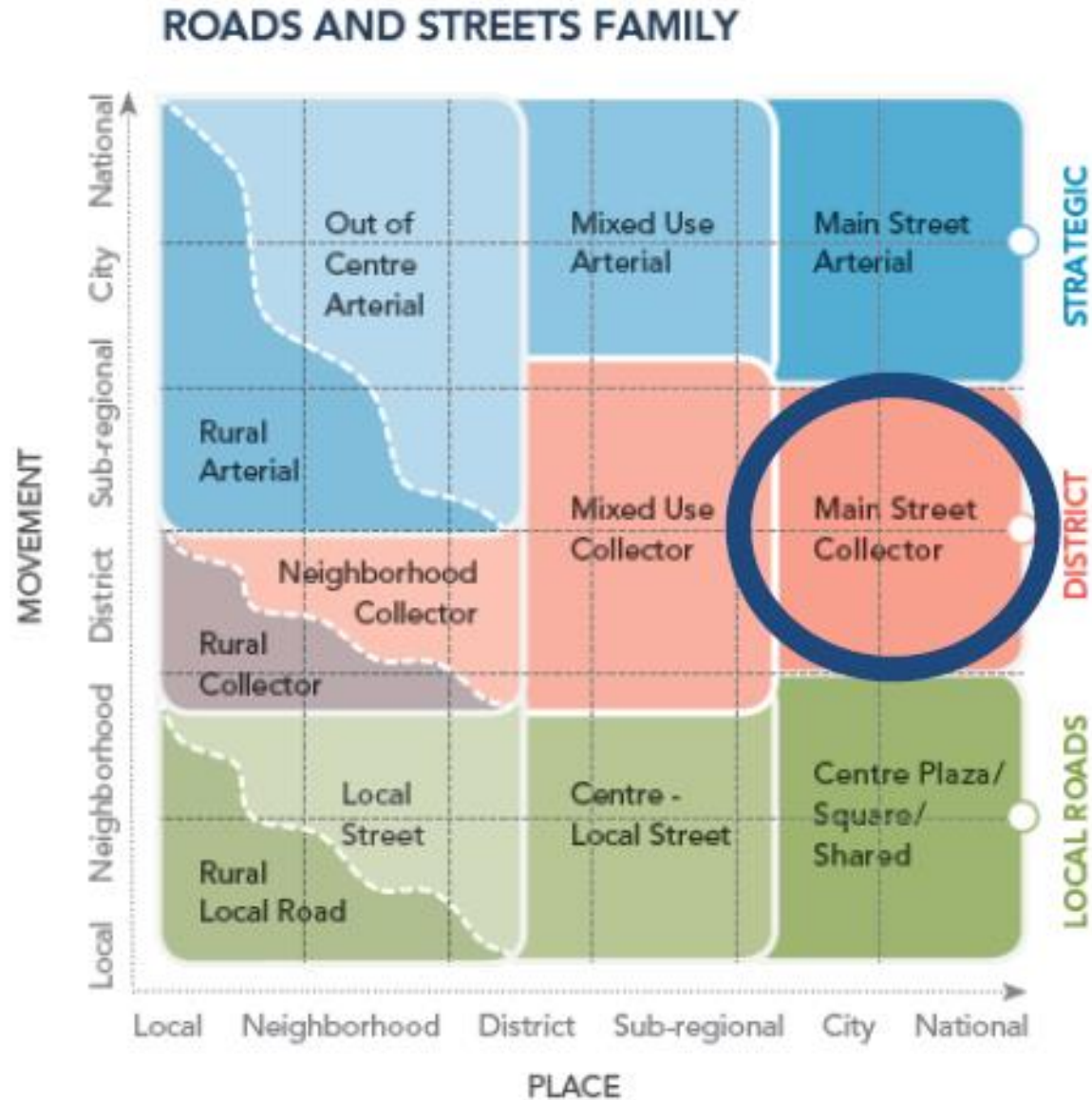


Figure 7: Applying the framework

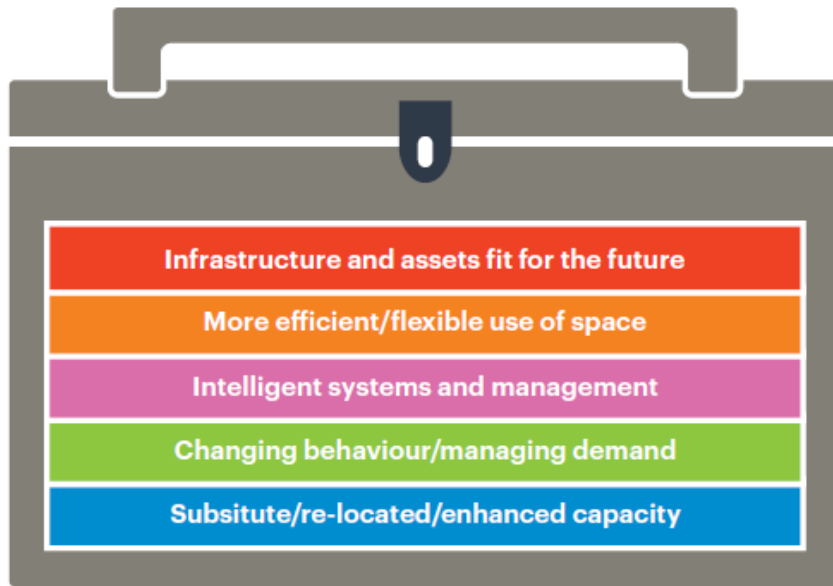
# London: Local descriptions of street environments



# Auckland: Local descriptions of street environments



# Auckland: Design interventions based on street type and customer performance gaps



Transport for London  
'Toolkit'

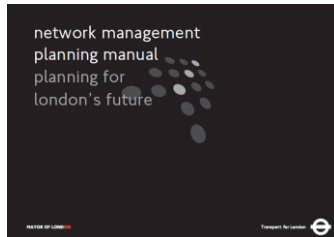
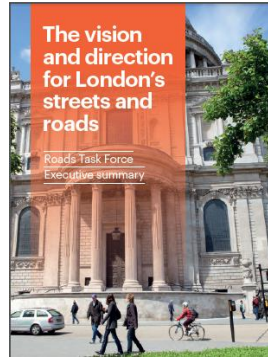


Auckland Transport  
'Toolkit'

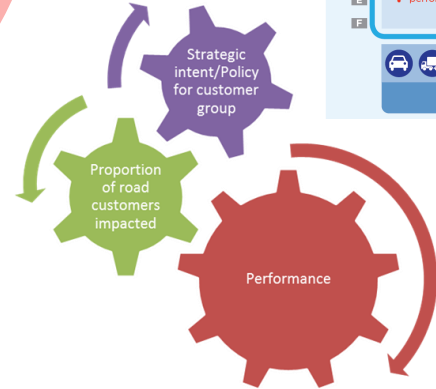
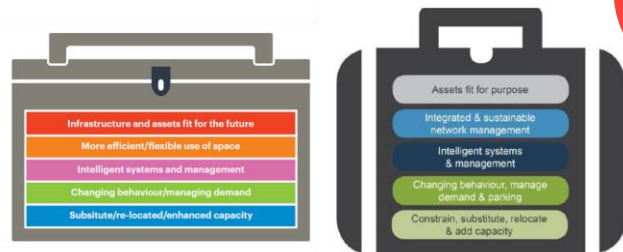
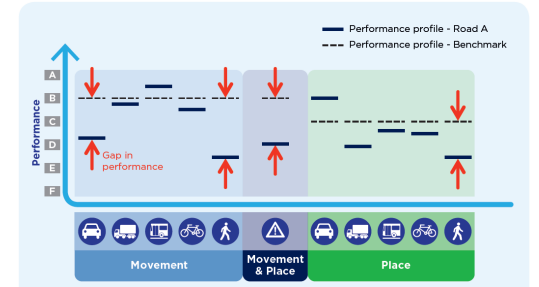
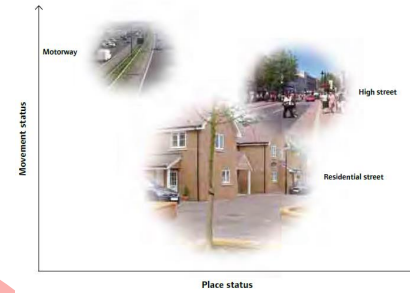


How is Movement and Place being used in ANZ?

# Common 'Movement and Place' program



	National/International					
	Metropolitan/City					
	Sector					
	Borough					
	Neighbourhood					
	Local					
	Place dimension					
Highways Agency roads	I-A	I-B	I-C	I-D	I-E	I-F
TLRN	II-A	II-B	II-C	II-D	II-E	II-F
TLRN/SRN	III-A	III-B	III-C	III-D	III-E	III-F
District distributor (B)	IV-A	IV-B	IV-C	IV-D	IV-E	IV-F
Local distributor (C)	V-A	V-B	V-C	V-D	V-E	V-F
Local access roads	VI-A	VI-B	VI-C	VI-D	VI-E	VI-F



# Movement and Place Frameworks in ANZ



CITY / STATE	NEED FOR FRAMEWORK IDENTIFIED	FRAMEWORK DEVELOPED	APPLYING FRAMEWORK TO PROJECTS	DESIGN GUIDE
NSW	Yes	Yes	Yes	Not yet...
Victoria	Yes	Yes	Yes	No
Adelaide	Yes	Yes	Yes	Yes
Perth	Yes	Draft	Pilot	No
Canberra	Yes	Draft	Not yet...	No
Brisbane	Not yet...	No	No	No
Hobart	Yes	No	No	No
Auckland	Yes	Draft	Pilot	Yes

# Debate and issues

# There is industry debate

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### Movement and Place: the increasing gap between urbanism and road design

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**Hugh Gardner, Arup | 1 March 2018**

Transport agencies the length of the eastern seaboard have welcomed what is being called the "movement and place" approach into urban policy. It forms a big part, for example, of Transport for NSW's recent [Future Transport report](#). The premise of the approach is that there are two categories of street: one primarily for movement and one primarily for place. The result is a spectrum of possible street definitions with motorways at one end and pedestrian malls at the other.



**IATSS Research**  
Volume 32, Issue 1, 2008, Pages 14-25  
[open access](#)

AIMING FOR A BETTER ROAD TRAFFIC ENVIRONMENT  
**CREATING MORE PEOPLE-FRIENDLY URBAN STREETS THROUGH 'LINK AND PLACE' STREET PLANNING AND DESIGN**  
Peter JONES (Professor), Stephen MARSHALL (Senior Lecturer), Natalya BOUJENKO  
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You are here: Home > Research > HUK and several other given priority to the needs of the street, which is often unattractive for people on foot. This is a destination for economic or

**AITPM**  
Leadership in Traffic and Transport

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### Looking under the bonnet of 'Link and Place'

Primary Author : Murray West  
Co-authors : Murray West  
Organisation : MRCagney

**This paper examines contemporary 'link and place' design rationales and analyses how they may impact the routine delivery of quality streets for people (rather than simply cars) in the future. The paper seeks to identify any issues or shortcomings, and propose a revised approach that may help deliver better outcomes for local communities.**

'Link and Place' (alternatively 'Movement and Place') is a design rationale borne of the recent recognition that streets are not only conduits for moving people and things, but are public places in their own right that contribute deeply to healthy, social and prosperous communities.



# Defining 'place'

Large suburban Rail Station = low place status



A large suburban rail station is anticipated to have a small number of people walking to the station (most will drive or get a bus). Hence the road corridors adjacent to the station have a low place function

Smaller urban Rail Station = higher place status

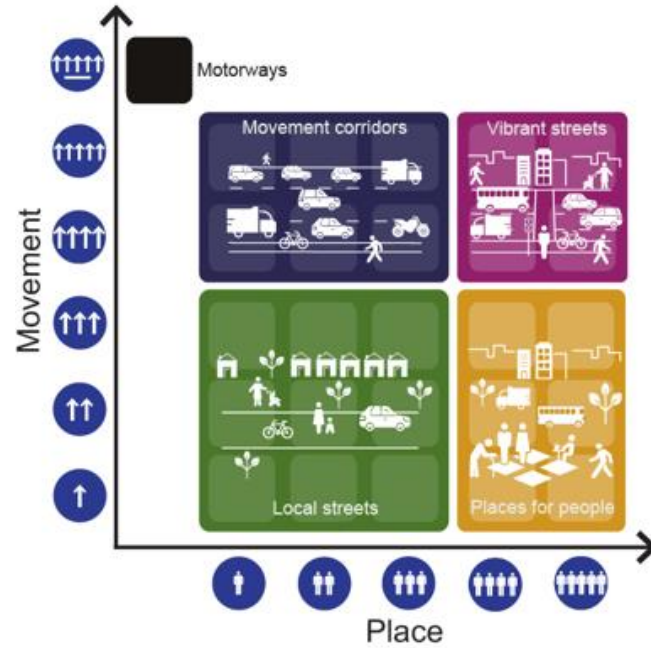


A smaller rail station in a built up urban area may have a large number of people walking/cycling to the station. Hence the road corridors adjacent to the station are considered to have a higher place function

# Prescriptive or bespoke?

	Place dimension					
	National/international	Metropolitan/City	Sector	Borough	Neighbourhood	Local
Highways Agency roads	I-A	I-B	I-C	I-D	I-E	I-F
TLRN	II-A	II-B	II-C	II-D	II-E	II-F
TLRN/SRN	III-A	III-B	III-C	III-D	III-E	III-F
District distributor (B)	IV-A	IV-B	IV-C	IV-D	IV-E	IV-F
Local distributor (C)	V-A	V-B	V-C	V-D	V-E	V-F
Local access roads	VI-A	VI-B	VI-C	VI-D	VI-E	VI-F

Link dimension (vertical axis)



Andrew Cameron, WSP and Bob Whyte, Kent County Council

# Which performance indicators to use?



An initial set of Key Performance Indicators (KPIs) have been developed to monitor progress across the six function areas:

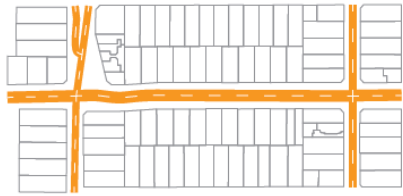
Functions	KPIs
<p>Living</p>	<ol style="list-style-type: none"> <li>1. Pedestrian counts/active edge</li> <li>2. Services &amp; facilities available within 10 minute walking trip</li> <li>3. Crime rates/trends from NZ Police statistics</li> </ol>
<p>Unlocking</p>	<ol style="list-style-type: none"> <li>1. Jobs accessible within 30– 45 minute trip</li> <li>2. Portion of household income spent on transport</li> <li>3. Walk score (international ranking of how well connected each place is) applied to selected locations</li> </ol>
<p>Moving</p>	<ol style="list-style-type: none"> <li>1. Screenline survey of people movement per mode in peak/off-peak in selected locations</li> <li>2. Journey time reliability on key routes</li> <li>3. People throughput of different modes</li> </ol>
<p>Functioning</p>	<ol style="list-style-type: none"> <li>1. Parking occupancy for town centres (compared to 85% occupancy threshold)</li> <li>2. Heavy vehicle volumes/portion of traffic on selected routes</li> </ol>
<p>Protecting</p>	<ol style="list-style-type: none"> <li>1. Death and serious injury on local roads</li> <li>2. Collective / personal risk = social cost per km of road</li> <li>3. Crime statistics for selected catchments on local roads</li> </ol>
<p>Sustaining</p>	<ol style="list-style-type: none"> <li>1. Per capita greenhouse emissions and air pollution (NOx, PMx)</li> <li>2. Portion of residents who regularly use active modes and public transport per week</li> </ol>

Way forward

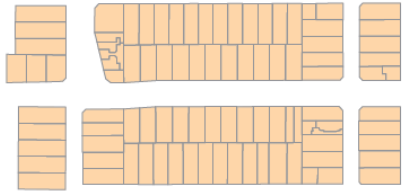


# Movement and Place principles

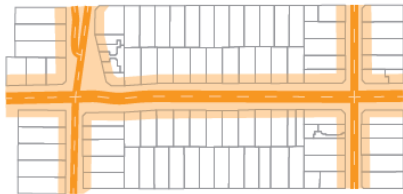
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Traditional transport plan



Land use plan

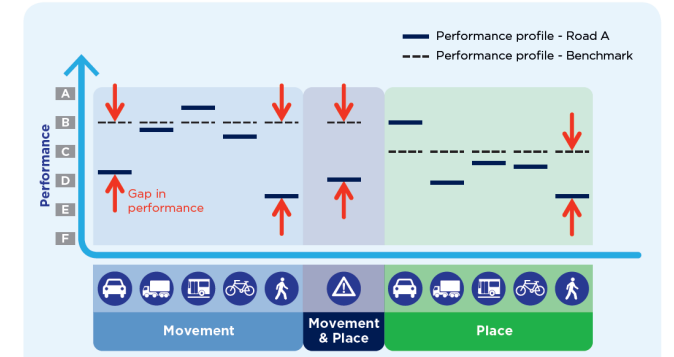


Movement and Place plan

## 2. Consider the needs of all customers



## 3. Frameworks are evidence based



# Does your city need a Movement and Place Framework?

