THE CAPACITY OF STATE AND LOCAL GOVERNMENTS TO DELIVER LAND USE TRANSPORT INTEGRATION: AN ANALYSIS OF LAND USE AND TRANSPORT POLICIES IN PERTH AND MELBOURNE

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ABSTRACT

Reducing the need to travel, particularly where there is reliance on the car as the primary mode of travel has multiple benefits to sustainability. Many cities, including Perth and Melbourne, have been designed with the car as the primary travel mode. Diversifying transport options can be enabled through the integration of land use and transport planning, both to deliver an integrated transport network and to structure land use and activity in cities to provide greater opportunities for walking cycling and public transport use. A policy framework through which this can be achieved is essential.

In the last decade Australian planners have renewed interest in planning strategies that integrate of land use and transport to achieve more sustainable travel outcomes. There is a National Charter on Integrated Land Use and Transport Planning and providing access to public transport through integration with land use activity is the key focus of metropolitan planning strategies for Australian cities. Some states have gone further, harnessing the efforts of local government, such as the 'Integrated Transport Planning Partnering Agreement' in Western Australia to improve collaboration. Given this impetus it is reasonable to expect policies at state and local government to reflect the principles of land use transport integration.

This paper reports on research findings from a content analysis of land use and transport policies of governments for two Australian metropolitan regions, Perth and Melbourne. Policies are assessed against a set of 'land use transport integration' principles. A comparison is made between the two cities as to the extent of capacity. The analysis also focuses on the vertical integration of policy between state and local government. These findings are part of a larger case study investigation of the capacity of State and Local Government to deliver sustainable and integrated transport. The overall purpose of the research is to understand barriers created by horizontal and vertical governmental relationships in coordinating policy and achieving land use and transport integration.

INTRODUCTION

Land use planning is an important to facilitating a shift to more sustainable transport systems (Banister 2005) and travel patterns. This necessarily entails that considerations relevant to both physical and institutional land use and transport planning be integrated. This approach has been identified as a means of achieving sustainable objectives such as the reduction in the need to travel (Greiving and Kemper 1999), a better balance of transport modes such as walking, cycling and public transport use (Curtis 1999) and reduced carbon pollution due to a decrease in the use of motorised transport (Banister 2005).

The principles of land use and transport integration (LUTI) have evolved from urban design and transport fields. By focussing on sustainable accessibility it is possible to reduce the need for travel by maximising the benefits from interactions between land uses and transport rather than solely focussing on maximising the performance of the transport network leading to enhanced mobility, usually by private car (Curtis and James, 2004). The means to achieve LUTI have been articulated over a considerable period (Goodwin et al 1991). They encompass a range of policies such as increasing development intensity in those locations with high accessibility; mixing complementary land uses in close proximity to each other and close to public transport; improving public transport services; facilitating travel mode shift by co-ordinating timetables; maintaining safe and comfortable transit stops; increasing the opportunities for non-motorised forms of travel such as walking and cycling; and providing safe and vibrant public realms.

Whereas the objectives of LUTI are well established, there is little knowledge about the means to their successful achievement. One key barrier to implementation is in the institutional and policy dimension (Banister 2005; Reitveld and Stough 2005). Achieving implementation in this respect requires an understanding of two components – the rules and rule structures that guide action (North 1990) and the organisations as agents of those rules with particular organisational dynamics that influence actions and implementation. By examining how organisations operate, via an analysis of their policy instruments, it is possible to evaluate, in part, the capacity for delivery of sustainable transport outcomes. In order to do this it is necessary to establish both the nature of the relevant organisations and the nature of their policy instruments.

Context for Planning in Perth and Melbourne

In Australia, the delivery of LUTI is the responsibility of two levels of government (state and local), which have differing powers and scales of interest. The Australian Federal Government delegates urban planning powers and responsibilities to each state and territory but takes a very limited role in providing a framework to guide beyond the National Charter on Integrated Land Use and Transport Planning (DoTARS 2003). Urban land use and transport planning in Western Australia (WA) and Victoria is delivered by way of a variety of statutory powers, guided by a range of policies, strategies and guidelines. Planning undertaken by the state governments at the regional level is an important means to co-ordinate development, deliver infrastructure and integrate transport networks. Australian

states use regional planning strategies to guide the development of the primary metropolitan areas, a central part of these strategies is the integration of land use and transport considerations in order to achieve sustainable urban growth (Bunker and Searle 2009).

Australian state governments devolve some of the responsibility for land use planning to local governments. State legislation requires local government to create planning schemes, which guide the use and development of land within their jurisdiction. In WA and Victoria these schemes and changes to them must be approved by the state, so local considerations can be influenced and if necessary overridden. Local planning schemes are also informed by local planning strategies and non-statutory policies that describe the sentiment in which planning schemes are to be applied; however the suite of relevant additional policies differs between Local Governments. In addition to policy, in WA local governments have committed to work cooperatively with the state in accordance with an 'Integrated Transport Planning Partnering Agreement' (DPI, 2001).

Local government, despite being delegated many of the powers to deliver objectives relating to land use and development, have little power in the delivery of major transport infrastructure, particularly main roads and public transport networks. Local government has greater opportunity to create good environments for non-motorised modes as they have responsibility for provision, maintenance and regulation of local roads, cycle networks and footpaths. However, even at this scale the state agencies hold power as they retain responsibility for line marking and signage and so retain control over provision of on-road cycling opportunities and traffic speeds with its consequent effect on pedestrian and cycling amenity. In addition to the State government responsibilities for building, maintaining and regulating main roads they also have responsibility for provision of public transport, although this capacity has been limited by national and state funding in favour of private transport and the privatisation of service delivery (Gleeson, Curtis & Low 2003). To integrate land use and transport planning in the context of these differing responsibilities at the state and local levels, consistency, cohesion and balance of objectives and actions are required.

Planning policy and land use and transport integration

An effective policy framework is an essential starting point for the delivery of LUTI within institutions that plan land use and transport systems yet there is little evidence on how this is best achieved (Curtis and James 2004). Policies exist as a clear statement of intent, yet they are also influenced by a range of institutional factors and governance systems which influence the nature and degree of their implementation. It is important to highlight that, whereas policy is often understood as a process involving formulation, implementation and feedback, this paper focuses on policy as expressed in specific published documents that provide an overall framework to guide discretionary powers and co-ordinate action towards stated objectives. This incorporates documents that are officially 'policies' and documents that also influence the range of land use and transport planning decision making including statutory documents such as planning schemes and other documents such as planning strategies.

Policies represent the 'front door' of the particular agency; they can indicate the extent to which there is any capacity for LUTI. Clearly policies are open to multiple interpretations, they are influenced by the content and interpretation of other policy texts and that interpretation and emphasis changes with the political climate in which policy is interpreted. Notwithstanding this issue it is important to understand the way in which policy texts are presented in published documents and this is the focus of this paper. A later stage of our research will analyse the organisational dynamics and interrelationships that influence policy development and implementation, and therefore capacity. This capacity then is determined by a large range of factors and agents and the effectiveness of policy to influence practice is determined by its relationship to a wider institutional context. A broad scope of analysis is required to better understand the full level of commitment to LUTI, one that incorporates practice and the large range of stakeholders that engage with the various levels of government. However, government is the primary enabler of LUTI and published government policy is the primary conceptual framework in which this capacity is demonstrated, particularly in a public arena.

The nature of the various policies and their role in planning, although elusive and influencing planning in many forms and capacities, are central. In the Victorian context Stein (2008, 103) writes that "(t)he *Victorian Planning Provisions* have paved the way for the direct inclusion of policy in a scheme and are perhaps an honest reflection of the fact that the planning system is governed to a great extent by policy statements." There is a wide range of documents considered as policy each with varied weight due to their relationship with statutes, their location in the planning format or their acceptability by certain institutions. There are also policies in the form of reports and drafts that are created by institutions and form part of their conceptual framework and modus operandi (Stein 2008, 87). Often the power of various planning policies is latent and only established when the statement of policy intent is challenged. The role of planning appeal bodies often tests the weight of policies and this aspect of the planning system has important implications, the primary one being the role of lawyers and the rule of law in planning considerations. Although it is not the purpose of this research to address the role of planning appeal bodies such as Administrative Tribunals, their role demonstrates the complexity of the context land use and transport policy operates in. Policies can therefore be seen both as passive statements of desired outcomes and also tools, utilised in planning practice to justify particular decisions and developments.

Planning policy and Land use and transport integration in Perth and Melbourne

Western Australia: Planning is governed by the *Planning and Development Act 2005* which sets out the requirement for subdivision of land and its development and the production of Town Planning Schemes by local government. The Western Australian Planning Commission (WAPC), an independent authority makes recommendations to the Minister for Planning, who has direct control over the state department on guidance and control for development. With an overarching role in guiding planning in WA, the WAPC has a key role in the integration of transport and land use planning. WA has a State Administrative Tribunal (SAT) that can review development decisions.

Through the SAT and Ministerial powers, the State government can exercise final control over planning decisions in most cases.

Local governments in WA are created through State Government legislation and have a significant role in planning, though this is determined within the boundaries of State government Policy and Statute (Murphy 2007). Local government produce and apply local planning schemes in their local jurisdiction. These schemes, which must conform to the state Metropolitan Region Scheme and other State Statutory documents, provide the statutory framework for planning in each local government. Among other things, they determine what type of development can occur where, and provide direction on densities and plot ratios. There are also a range of policies additional to the planning scheme which may be relevant to LUTI, though there is little coherence across different local governments. Since 1997, all local governments are required to develop a *Local Planning Strategy* to set out the long term land use and development aims and to inform the development of the local planning schemes. However, at the time our research was undertaken, only seven of thirty two local governments had produced one. A limited number of local governments also have *Local Transport Strategies,* and *Local Bike Plans*.

There are a broader range of policies at both state and local government levels that also inform planning. At the State level strategic direction for development is found in: the *State Planning Strategy* (1997) provides an overall direction for development in WA; *Network City* (2004) sets out metropolitan regional planning strategy to 2029; the *Perth Metropolitan Transport Strategy* (1995) seeks to guide the transition to more sustainable transport systems. Additionally a range of statutory documents, such as the planning development code, *Liveable Neighbourhoods Design Codes*, are used to assess development and are given power through the Planning and Development Act 2005.

Victoria: Land use planning powers are granted by the Planning and Environment Act 1987. The Act distinguishes between the planning authority, which draws up planning schemes, and the State Minister for Planning responsible for approving schemes. In practice both roles are normally assumed by the local government although the State retains considerable control, including through VCAT the equivalent to the WA SAT tribunal. The format and content of planning schemes is set out in the Victorian Planning Provisions (VPP), introduced in 1996 to standardise the format of planning schemes and ensure inclusion of consistent State content (the State Planning Policy Framework). The VPP includes a standard suite of zones and overlays and local governments may only choose from this suite in order to facilitate their own planning strategies. Zones usually determine the particular use of land while overlays govern the development. The VPP sought, among other things, to limit local variation and provide certainty in development although these objectives have not been entirely successfully (Buxton et al 2003), further this standardisation can limit the ability of the local government to deliver or guide decisions relating to their strategic direction (Shaw 2003). Each scheme also includes a Local Planning Policy Framework (LPPF) which states the local government's broad direction for land use and development together with various local planning policies to support. Local content may also been included in the later part of the scheme in the form of particular and

general provisions. The range of zones and overlays that are selected from the VPP by the local government for inclusion into the scheme are intended to be used to implement the objectives of the LPPF. Several local governments also have separate transport strategies which, although not statutory documents, provide guidance and direction in both land use and transport considerations.

Several non-statutory state documents also influence the planning of land use and transport systems in Melbourne. The metropolitan regional strategy, *Melbourne 2030: Planning for Sustainable Growth* (2002) and a series of accompanying implementation plans aimed to direct growth of the metropolitan area and provide strategic direction on development and infrastructure provision. Two further state documents, both relating to transport planning, are also important to consider: *Linking Melbourne: Metropolitan Transport Plan* (2004), a strategic transport plan collecting together various policies relating to public transport service, roads, freight, cycling and walking; and *Meeting Our Transport Challenges: Connecting Victorian Communities* (2006), a strategy which outlines a ten year expenditure program for new infrastructure projects and public transport services.

Policy Integration

Integration in an organisational context is a complex issue. Departments and organisations responsible for the delivery of physical land use and transport objectives have traditionally been divided. As Curtis and James note, there is a distinction between co-ordination and integration of activities in these institutions in that "(c)oordination occurs when a central organisation coordinates other agencies (or functions) with no linkages between the agencies, whereas integration occurs only when all the agencies are linked with each other' (2004, 281)

Colebatch (1998) distinguishes between two dimensions of policy integration, those being vertical and horizontal. One way to both frame the relationship between different levels of government and determine the capacity for levels of government to integrate policy across differing sectors is that of integration of policy messages across these two dimensions. Vertical integration occurs across differing levels of government and is "a dimension which stresses instrumental action, rational choice, and the force of legitimate authority" (1998, 38). As seen above, this is an important dimension given the range of powers at state and local government in the LUTI context. Horizontal integration on the other hand involves interactions both across sectors within the same level of government.

As a reflection of differing power structures, the nature of interaction along these two policy dimensions necessarily differs, with vertical interactions tending towards authority and conformance, while horizontal interactions utilise negotiation, co-ordination and bargaining. It is important to note that several definitions of vertical policy integration are used in public administration literature such as those that relate to rank and employment hierarchies within organisations (Matheson 2000). Hierarchical relationships and power differentials which influence the capacity within various government sectors and organisations to deliver LUTI outcomes no doubt exist and will be investigated in follow up research. This research focuses on vertical integration between different levels of government as expressed through policy. It must be noted however that this identification of

the two policy axes is simplified and vertical and horizontal dimensions do co-exist and influence each other. Matheson (2000) describes a tension between the two types of relationship, and that an over reliance on authority to force vertical integration of policy can lead to an erosion of consent-based policy of horizontal relationships.

An analysis of the relationship between organisations along these two dimensions can be undertaken by an investigation of the coordination and cohesion of policy messages in regards to their strength and clarity and the context of the power differentials in which they operate. Stein, while noting the unique and confusing role of policy in planning recognises its increasingly central role. He writes, "(a)s policy is essential to town planning, it is important that care is taken in the degree of specificity and the manner in which it is to be applied; to be useful, it must not be vague or confusing. If a policy is merely conceptual, proposing ideas for change, or hypothetical as to what might occur, it is not able to be understood or applied" (2005, 101). A normative concept of policy integration in this context would therefore involve a policy framework consisting of clear and precise direction towards a series of mutually supporting objectives across both levels of government and between differing sectors or areas of responsibility within those levels.

Methodology

To understand the policy capacity of the planning system to implement LUTI a content analysis of relevant policy documents at the state and local government level in Perth and Melbourne was undertaken. Content analysis is a systematic and quantitative methodology for textual analysis. A set of categories are developed and documents are coded according to their match with these categories (Stemler 2001, Neuendorf 2005). For this research, the content analysis framework consisted of a comprehensive list of physical and spatial principles for LUTI derived from previous research (see Curtis, 1998; 1999; 2005). The principles are divided into three sub-categories for analysis: access, land use and people places, and are listed in Table 1. Content analysis enables assessment of individual documents as well as comparison across documents. A comparative analysis of policy in each jurisdiction provides a measure of the horizontal and vertical integration between policies that exist in different departments, or different levels of government.

Table 1 Land Use Transport Integration – Physical Planning Principles

Access	
The Network	A1. High degree of interconnectedness to urban system (adjacent centres, residential catchments, transit interchanges)
	A2. Balance of access between through-travel and travel to the place; local and regional access requirements
	A3. Choice of transport options in close proximity to many homes and facilities - the possibility of substituting the right mode for the specific trip
Activity function	A4. Highly connected street network focussed on access to centres and transit stops, permeable for people A5 - well designed walkable catchments,
	A6. High quality pedestrian experience - safe, well lit, trees, shelter. Arterial roads have safe pedestrian facilities, on-road cycle lanes
Traffic Management	A7. Lower traffic speeds, moderate traffic volumes, narrower streets (but not at the expense of conditions for cyclists)
	A8. Moderate traffic volumes
	A9. Narrower streets
	A10. Effective traffic management
	A11. Pedestrian priority
Service	A12. Integrated transport - easily accessible by all modes and interchange between these modes to destinations reached on foot; seamless and safe connections, ease of movement
	A13. In operational terms – timetabling; easy to navigate system, high frequency, reliable, efficient public transport service to many destinations– no need for consulting timetables
	A14. In operational terms – easy to navigate system
	A15. In operational terms – high frequency
	A16. In operational terms – reliable
	A17. In operational terms – efficient public transport service to many destinations
	A18. Safe, secure, convenient and comfortable stations, stops and interchanges
	A19. Accessible by people with disabilities, seniors, children, mothers with prams etc.
	A12. Cycle friendly; secure cycle storage; connective networks of adequate capacity
	A21. Good business servicing opportunities
Land Use	
Land use configuration	LU1. Land use integrated with integrated transport
	LU2. A robust urban form – can adjust to changes in demand for transport and land use
	LU3. Greater diversity, vibrant mix of land uses within precincts
	LU4. Greater diversity, vibrant mix of land uses within buildings
	LU5. High pedestrian trip generating uses at ground floor, housing above in close proximity of transit stop
	LU6. Buildings oriented to station/streets/paths
	LU7. Active ground floor uses for surveillance
	LU8. Frontage development - human scale
Density/Intensity	LU9. Highest residential density in close proximity to activities (but ensure includes family housing types)
	LU10. Medium to high residential densities
Proximity	LU11. Compact cluster of related (compatible) activities (highly visited) in close proximity (walking distance), clustered around rail station/high frequency bus stop
	LU12. More intensive/ high-medium density office, retail and other commercial uses (measured by high worker densities) within walking distance of transport facilities
Parking	LU13. Car parking areas managed so pedestrian access, amenity and safety not compromised
	LU14. Parking provided in shared structures rather than on individual sites
	LU15. Car parking behind buildings not fronting street
	LU16. Street parking
	LU17. Short term parking but limited commuter parking
	LU18. Car-based retailing (drive-thru') and light industry located on periphery of town with good car access
'People Places'	
Scale and Design	PP1. Human scale – less demand for 70kph scale advertising, more public art opportunities, sense that cars are not the priority mode
	PP2. Integration of character and scale of development within precinct
	PP3. Respecting existing development (through retention or sympathetic re-development)
	PP4. Diversity of architectural styles
	PP5. Legible design - is easily understood for residents and visitors
Amenity	PP6. High amenity precincts – a place you want to go to – a destination in its own right
	PP7. Community/neighbourly feel – mixed ages – family friendly
	PP8. Good 'people places' – public open space, public seating, public art
	PP9. More social encounters due to more walking, cycling, use of public transport
	PP10. Busy places

(Source: Curtis, 2005)

There are vast array of policy documents present at state and local government levels, but only those policies most directly relevant to statutory or strategic planning for land use and transport integration in Perth and Melbourne were assessed. Table 2 shows the policy documents analysed for Perth and Melbourne. In WA some local planning schemes were influenced by an earlier State policy, MetroPlan (1990) which was replaced as Perth's strategic planning strategy in 2004 by Network City, therefore

both were analysed; this also enables policy change over time to be considered. No such comparison has been made for Melbourne. Between 1991 and 2001, all Melbourne local planning schemes were overhauled to reflect the introduction of the Victorian Planning Provisions and further amended following the release of Melbourne 2030 in 2002. Previous strategy is therefore no longer reflected in current Melbourne planning schemes (Buxton 2003).

Table 2 Policy analysed in Perth and Melbourne LUTI content analysis.

Policy type	Perth	Melbourne
State Government Strategic Documents	The State Planning Strategy (1997) The Perth Metropolitan Transport Strategy (1995-2029) Network City Community Planning Strategy (2004); Metroplan (1990, replaced by Network City in 2004);	Melbourne 2030: Planning For Sustainable Growth (2002) Melbourne 2030: Implementation Plans (2002): Growth Areas; Housing; Integrated Transport; Activity Centres; Linking Melbourne. Metropolitan Transport Strategy (2004) Meeting Our Transport Challenges: Connecting Victorian Communities (2006)
State Government Statutory documents	The Liveable Neighbourhoods Design Codes Edition 2 (2000); Statement of Planning Policy 3 Urban Growth Settlement (March 2006) Development Control Policy 1.5 Bicycle Planning (July 1998) Development Control Policy 1.6, Planning to Support Transit Use and Transit Oriented Development (January 2006) Development Control Policy 2.6 Residential Road Planning (June 1998)	The Victorian Planning Provisions (1996)
Local Government statutory Documents	Town planning schemes for each of 32 local governments in the Perth Metropolitan Region	Planning Schemes for each of the 31 Local Governments in the metropolitan area. The Local Planning Policy Framework was analysed in each scheme.
Local government Strategic Documents	Local Planning Strategies, present in 7 of 32 local governments Local Transport Strategies present in 5 of 32 local governments Local Bike Plans present in 4 of 32 local governments.	Local Transport Strategies present in 14 of the 31 Local Governments.

Individual statements within each policy text that captured LUTI principles were coded to a seven point scale where from +3 (strongly satisfies LUTI criterion) through -3 (strongly works against LUTI criterion) and 0 (ambiguous). The results were transposed into two data sets for analysis. The first data set records the highest score in each document for each individual LUTI criteria. The second provides a summative indication of whether or not the document: a) Has content that satisfies an individual LUTI criterion; b) has content that works against an individual LUTI criteria or c) has some content that supports, and some content that works against an individual criterion and is therefore ambiguous. Together these data sets provide an overall measure of the best case scenario in terms of support for LUTI criteria in policy as well as an indication of overall support, lack of support or ambiguity[1]. Results for the LUTI categories of Access, Land use and People Places are presented separately, although it is recognised that they are interrelated elements of LUTI.

Several challenges were noted through the process of the content analysis. In many cases, the documents analysed were lengthy and the process was therefore time consuming. The analysis period spanned some 18 months and was conducted by four researchers. This required that steps be

[1] See (Curtis, Armstrong 2009) for analysis of the pros and cons of this methodology

taken to ensure inter-reliability of results, which included rigorous training and review by the lead researcher. The relatively simple system of scoring provided complete reliability in relation to positive or negative scores, minor differences between assessors in the use of the range +1to+3/-1 to-3 has negligible impact on reliability due to the way in which findings are reported. There were also observed implications from breaking down a policy document into separate elements to score. Firstly, a qualitative assessment of the overall document is not achieved. Secondly, data may become de-contextualised. For example, a local planning scheme could score +3 for the criterion relating to medium to high residential densities because one precinct within the scheme strongly advocates for higher density, whereas the overall picture for the total scheme area works against higher densities. Where this was the case it is reflected in the score for ambiguity in this document. Finally, the sheer amount of data generated makes analysis complex.

A direct comparison of data between the results for the content analysis for Perth and Melbourne is challenged by the reality that the planning systems in these two jurisdictions are very different. However, at a meta level, overall policy support for LUTI, results that measure horizontal integration at the state government level, vertical integration between state and local government, and consistency across local government can be qualitatively compared. These results, which are presented below are instructive in terms of understanding the potential within policy in each jurisdiction to provide support to LUTI.

To analyse the results at the state government level, tables showing the highest rating for each state policy document are presented and discussed. A qualitative comparison is also made of the two state policy frameworks, bearing in mind that there are significant differences in the way that policy is constructed in the two jurisdictions, and therefore they are not directly comparable in a quantitative sense. An important distinction is that in Melbourne, the sole statutory document is the Victorian Planning Provisions (VPP) whilst in Perth; there are several relevant statutory documents (see Table 1). Whilst the analysis provides some indication of horizontal integration across state government documents, there are some policies, which take a broad sweep approach – such as the WA State Planning Strategy and others, such as the Liveable Neighbourhoods Design Codes are far more likely to contain more specific measures. A fundamental measure, therefore, is whether or not the state policy framework does or does not include support for a particular criterion.

The distinction between the two policy environments needs to be made at the local level as well. The formats of local planning schemes in the two states, although serving the same function, are written in different styles, varying in the level of prescription and the way in which they are guided by other policy documents at the local level. The differing type of language used creates another challenge for comparative analysis. However, this in itself is an important aspect of the comparison between the two states and the respective policy formats will inform a qualitative analysis of the extent of the vertical and horizontal integration of policy messages.

For the analysis of vertical integration between state and local government, the tables indicate whether a particular criterion is present at the state government level in any of the policy documents analysed. On this basis, given that local government draws it policy direction from state government, it is suggested that if State policy is supportive of a particular criteria, then local government should be moving towards its inclusion in of that criteria in the local policy framework.

For both Perth and Melbourne, local planning schemes/ provisions are the only local content that is consistent across all local governments. Whilst some local governments in Melbourne have local transport strategies, and in Perth, some have local planning strategies, bike plans or transport strategies, these are not consistent across local government. As a result only the local planning schemes (Perth) and local planning policy framework (Melbourne) are presented in the tables. Where a criterion is absent from a local planning scheme/ provisions there is no statutory policy framework for its integration in that particular local government area. However, relevant findings in relation to the broader suite of local governments are also discussed in the results (see Curtis, Armstrong 2009).

RESULTS

Access

Table 3 shows the highest rating for access criteria coded in state policy for Perth and Melbourne. The discussion on state policy that follows is drawn from this table. Table 4 compares the presence of support at the state government level with the strength and breath of support for access criteria across local planning schemes (Perth) and the Melbourne local planning provisions.

Table 3 Comparison of highest ratings achieved for ACCESS criteria in State policy documents in Perth and Melbourne.[2]

	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21
Perth - Strategic																					
State Planning Strategy			2																		
Metropolitan Transport Strategy	2	3	3	1	2	2	2	2		2	1	2	1	2	1	1	3	3	3	3	1
Network City	2	3	2	2	2	2				1	1	2		2	2		2		2	2	1
MetroPlan 1990	2		0			2				1		2							1	2	1
Perth - Statutory																					
Liveable Neighbourhoods	3	2	1	3	3	3	3	2		2	2	1					1	2	2	3	3
WAPC SPP 3 Urban Growth Settlement	1	2				2						2						2			
WAPC DC 1.5 Bicycle Planning						2	1					2								3	
WAPC DC 1.6 TOD				3	3	3						3						3		2	
WAPC DC 2.6 Residential Road Planning				3	2	1	2	2	1	1				2						1	
Melbourne - Strategic																					
Melbourne 2030	3	3	3	3	2	3				3	3	3		2		3	2	2	3	3	1
Activity Centres Implementation Plan	2	2	1	3	2	2	2	1	1	1		1	2					2	2	2	1
Integrated Transport Implementation Plan	2	2	1	1	1					2		2	2	2	2	2	2	2		2	
Growth Areas Implementation Plan			1	2	2	1												1			
Housing Implementation Plan					1																
Linking Melbourne	3	2		1	2	2	1			2	2	2	3	2		3	2	3	3	3	1
Meeting Our Transport Challenges	3	2	3	2		2		2		3		3	3	3	2	3	3	3	3	2	
Melbourne-Statutory																					
Victorian Planning Provisions	2	2	2	2	2	2	2	2		2	2	2			1	2		2	2	2	1
KEY																					
Highest Rating achieved						3		2		1			0		-1		-2		-3		

State Policy

Perth: The collection of policy documents creating the 'State Policy Framework' in Perth includes support for all the LUTI access criteria, which is a positive sign. However, there are some important nuances that can be identified in Table 3. Firstly, there is better overall coverage of Access criteria in State strategic documents than in statutory policy. The *Metropolitan Transport Strategy*, which has no statutory force, was the most consistent supporter of the Access criteria. *Network City* metropolitan planning strategy was also reasonably consistent in supporting the access criteria, and is also far more supportive than its predecessor, *MetroPlan*, a positive sign that policy is improving over time with regards to LUTI access criteria. The *Liveable Neighbourhood Design Codes* (WAPC 2000) , which has the force of a development control policy for structure plans, new subdivisions and green fields developments also supports many of the access criteria, through there remains is a notable gap in those criteria concerned with the operational terms aspects of a good public transport system[3]. The design codes are progressively replacing state development control policies, again showing LUTI progress is occurring (WAPC 2007).

[2]See Table 1 for full details on each criteria, and methodology section for discussion on ratings.
[3] Service - In operational terms: 13, timetabling: efficient public transport service to many destinations; 14 easy to navigate system; 15 high frequency; 16 reliable; 17, efficient public transport service to many destinations

Public Transport service criteria are notably absent from statutory policy in Perth, only reflected at the strategic level and by fewer documents. The *State Planning Strategy* only supports one access criteria – 'A3- choice of transport options in close proximity'. Another notable gap is in the area of Traffic management for the criterion 'A9- narrower streets', which was only supported weakly by *WAPC DC 2.6 Residential Road Planning* (1998). There is a similar gap in the Melbourne state policy. The most frequently supported access criteria were the more generic criteria, such as integrated transport, or those related to pedestrian and cycle friendly roads and services. This was also reflected in Melbourne.

Melbourne: There is comprehensive coverage of the LUTI criteria across the suite of state government documents. All of the criteria are addressed by at least one document and most are supported in more than half the state level documents. Most of the criteria were also addressed by statements that strongly reflected the LUTI criteria. It is necessary though to disaggregate the findings, by looking at each policy document, in order to reveal a clearer picture of how capacity to deliver LUTI is represented at the state level. The sole statutory document, the *Victorian Planning Provisions (VPP)*, contained no statements that strongly supported the LUTI Access criteria and four criteria were not addressed at all (relating traffic management-narrower streets and service operations). Given that the *VPP* is the most powerful state level instrument in integrating policy messages across the different levels of government, this is an important shortcoming.

The state strategic documents better address and support the access criteria. Overall *Melbourne 2030*[4] addresses all the criteria, only the 'A9 -Traffic Management- Narrower Streets' and 'A21 - Good business servicing opportunities' criterion were not strongly supported by statements within the document. However, the implementation plans released to facilitate *Melbourne 2030* contained statements that did not as strongly support the criteria as the broader *Melbourne 2030* document. The implementation plans suffered due to a tendency to defer policy objectives to future, proposed plans. This is interesting to note in the light of the necessity for policy statements to express clear directives. Both transport strategies showed good coverage and contained several statements that strongly supported the criteria, although neither contained statements supporting the narrowing of streets. There is an improvement, expressed in coverage and ratings, in the more recent transport plan*, Meeting Our Transport Challenge* when compared to *Linking Melbourne*. Criteria relating to broad LUTI characteristics were more comprehensively addressed and supported in the documents.

As an overall comparison, the policy frameworks at the state and local government level Perth and Melbourne showed similar strengths, strongly supporting the less specific access criteria, such as "A12 - integrated transport" and similar weaknesses in criteria that address specific details of traffic management and public transport service. However in Perth, these areas of weakness are much broader than for Melbourne, particularly in the area of public transport service.

[4] the original document and its accompanying implementation plans

Table 4 Vertical integration - Comparison of presence of support for ACCESS criteria in state policy to local planning schemes for Perth and Melbourne

LUTI CRITERION	**Perth State Planning Policy**	**Perth Local Planning Schemes**		**Melbourne State Planning Policy**	**Melbourne Local Planning schemes**	
ACCESS	YES	% pos	R	YES	% pos	R
1 The network - Interconnectedness to urban system	YES	9%	2	YES	45%	3
2 The network - Balance of access - through-travel and travel to	YES	6%	2	YES	74%	3
3 The network - Choice of transport options in close proximity	YES	53 %	3	YES	58%	3
4 Activity Function - Highly connected street network focussed on access to centres and transit stops	YES	13 %	2	YES	74%	3
5 Activity Function - Well designed walkable catchments	YES	16 %	3	YES	77%	3
6 Activity Function - High quality pedestrian experience, arterial roads have safe pedestrian facilities, on-road cycle lanes	YES	38 %	3	YES	71%	3
7 Traffic Management - Lower traffic speeds,	YES	0%	-1	YES	22%	3
8 Traffic Management - Moderate traffic volumes,	YES	6%	1	YES	35%	3
9 Traffic Management - Narrower streets	YES	0%	-1	YES	6%	3
10 Traffic Management - Effective traffic management	YES	81 %	3	YES	74%	3
11 Traffic Management - pedestrian priority	YES	13 %	2	YES	51%	3
12 Service - Integrated transport - easily accessible by all modes and interchange between these mode	YES	19 %	1	YES	77%	3
13 Service - In operational terms – timetabling, efficient public transport service to many destinations	YES	3%	1	YES	12%	2
14 Service - In operational terms – easy to navigate system,	YES	0%	-	YES	0%	-
15 Service – In operational terms – high frequency	YES	0%	-	YES	19 %	3
16 Service -In operational terms – reliable	YES	0%	-	YES	9%	2
17 Service - In operational terms – efficient public transport service to many destinations	YES	0%	-	YES	71%	3
18 Service - Safe, secure, convenient and comfortable stations, stops and interchanges	YES	3%	1	YES	38%	3
19 Service - Accessible by people with disabilities, seniors, children, mothers with prams etc	YES	44 %	3	YES	48%	3
20 Service - Cycle friendly; secure cycle storage; connective networks of adequate capacity	YES	41 %	3	YES	77%	3
21 Service - Good business servicing opportunities	YES	3%	2	YES	67%	3

Key							
% lga schemes with positive reference to LUTI criteria (% pos)	1-24 %		25-49 %		50-74%		75-100 %
Highest Rating achieved in any local planning scheme (R)	3	2	1	0	-1	-2	-3

Local Policy

Perth: When compared both to the outcomes of the content analysis for State government policy for the Perth Metropolitan region, Perth local planning schemes under-represent Access criteria. 'A10 - Effective traffic management' is the only access criterion that was consistently supported across many local planning schemes. Close to half of the local planning schemes were supportive of: 'A3 - choice of transport options in close proximity'; 'A19 -public transport accessible by people with disabilities, seniors, mothers etc', and 'A20 - cycle friendly'. Beyond these criteria support across local governments was patchy. Six access criteria: two in the area of traffic management, and 4 in the area of public transport service operation were not supported in any local planning schemes in Perth at all[5].

[5] A7, Lower traffic speeds; A9, Narrower streets; A14 easy to navigate system; A15 high frequency; A16 reliable; and A17 efficient public transport service to many destinations.

The best coverage of LUTI access criteria in any local planning scheme in Perth was 7 of the 21 access criteria, and the worst scheme provided no support to any of the access criteria at all. Importantly, the results show that whilst support within local government planning schemes was patchy, most of the criteria were covered in at least a few schemes. So there is precedent for local planning scheme support for most of the LUTI access criteria, even though for the most part they are not. Unlike Melbourne, where the best level of support achieved in any local government for many of the criteria was strongly supportive, there are far fewer access criteria in that were strongly supported by any local government planning scheme in Perth.

There were five Perth local governments that had local transport strategies and these provide much more consistent support to the LUTI Access criteria. This suggests an important role for local transport strategies in policy for LUTI in local government. Overall, however, there is little observable vertical integration between state and local government policy in Perth for the LUTI access criteria. Combined with the lack of policy support for the specific requirements of a good public transport system this factor warrants further investigation as a barrier to policy implementation.

Melbourne: There is one gap in the access criteria for Melbourne at the local level when compared to the State government policy suite that was analysed, where there were no complete gaps. Criteria relating to broader objectives and those focussing on activity function, cycling and walking were all supported by the majority of the local governments. However, criteria relating to more specific actions were under-represented. An example is 'A10 Effective Traffic Management', which is supported in 23 out of the 31 schemes. 3 of the four 4 remaining criteria relating to traffic management which would support the implementation of A10 are represented by well under half the local planning schemes. Despite this slight difference in aggregate coverage at the local level, several local governments showed significantly more commitment to access policies supporting LUTI, reflected in their strength of statements. Greater Dandenong is an example with 10 out of the 13 criteria it addressed strongly supported by policy statements.

Land Use

State Policy

Perth: State government policy analysed for the Perth metropolitan regions shows support for all but one of the LUTI land use criteria 'LU5 - high pedestrian trip generating uses at ground floor, housing above in close proximity of transit stop'(Table 5). Most consistent support across state government policy was identified for the more generic aspects of land use configuration[6]. Repeating the pattern observed in the access criteria, the more detailed criteria[7] do not receive as much policy support

[6] Land use integrated with integrated transport; A robust urban form; Greater diversity, vibrant mix of land uses within precincts
[7] Including the land use configuration criteria: Greater diversity, vibrant mix of land uses and within buildings; High pedestrian trip generating uses at ground floor, housing above in close proximity of transit stop; Buildings oriented to station/streets/paths; Active ground floor uses for surveillance; Frontage development – human scale

across the different documents. Support for the density and intensity criteria, and the proximity criteria was reasonably well spread across state government policy, however fewer state policy documents were coded as supportive of the parking criteria though unlike Melbourne, there were no complete gaps in support for any of the parking criteria. Interestingly, statutory policy, when taken as a whole provides broader support to the LUTI land use criteria than strategic policy, The *Liveable Neighborhoods Design Codes* supported 10 of 18 LU criteria; and *Development Control Policy 1.6, Planning to Support Transit Use and Transit Oriented Development* supported 12 of 18 LU criteria. In these documents, several of the criteria were strongly supported, particularly in the more generic aspects of land use configuration and for the two density/intensity criteria. The more recent strategic policy, Network city, supported 13 of 18 LU criteria compared to other strategic documents. Compared to Melbourne, where the State transport policy provided scant support for LUTI land use criteria, *the Metropolitan Transport Strategy* supported close to half of the Land Use criteria (Curtis, Armstrong 2009).

Melbourne: Land use criteria are not as comprehensively supported by state level documents as the access criteria area. The *Victoria Planning Provisions*, along with the *Melbourne 2030: Activity Centre implementation plan*, cover the most of land use criteria, both with 13 of the 18 criteria supported. Once again the *VPP* does not however contain any statements that strongly support the criteria. Strategic plans are patchy in their coverage and ratings. The main *Melbourne 2030* document contains the majority of its statements as strongly supporting the criteria although it suffers by only addressing half of the criteria. As in the case of the access criteria the implementation plans contain no statements that strongly support the criteria, again in contrast with the central Melbourne 2030 document. The two transport strategies, perhaps as expected, only address two criteria each, although this does demonstrate the absence of coverage of supporting policies that would indicate the existence of an integrated approach LUTI in general.

Criteria relating to parking were weakly represented at the state level. Two criteria, both relating to parking, were not represented by any of the state documents, those being ‘LU15 - Car parking behind buildings not fronting street’ and ‘LU17 - Short term parking but limited commuter parking’. Similarly, criteria relating to Land Use Configuration, particularly those relating to the mixing of uses within buildings and building orientation towards the street were under-represented, particularly by the state statutory document which is interesting to note considering that these criteria fit well within the document’s scope and influence.

Table 5 Perth and Melbourne State policy Documents Comparison – Land Use

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18
Perth - Strategic																		
State Planning Strategy	2		1								2							
Metropolitan Transport Strategy	3	1	3						2	2	3	3	1					
Network City	2	2	1	3			1		2	2	2	3		1			1	
MetroPlan 1990	1								2	2	2	1	1	-1				
Perth - Statutory																		
Liveable Neighbourhoods	2	2	2			3		3	3	1	1				3	2		
WAPC SPP 3 Urban Growth Settlement	2	1	1				2		1	2		2						
WAPC DC 1.5 Bicycle Planning																		
WAPC DC 1.6 TOD	3	3	3			3	3	3	3	2	3			2			1	2
WAPC DC 2.6 Residential Road Planning	1			1					1							1		
Melbourne - Strategic																		
Melbourne 2030	3	3	3				2		3	3	3	2						3
Activity Centres Implementation Plan	2		2	2	2	1	2		1	2	1	2	2	2				1
Integrated Transport Implementation Plan	2		2						2				1					
Growth Areas Implementation Plan	2		2						2	1	2							
Housing Implementation Plan	1								2									
Linking Melbourne	1															2		
Meeting Our Transport Challenges	3										2							
Melbourne State Policy Documents- Statutory																		
Victorian Planning Provisions	2	2	2				1	2	2	2	2	1	2	2		1		2
KEY																		
Highest Rating achieved						3		2		1		0		-1		-2		-3

Local Government Policy

Perth: In Perth, there is much more consistency between State and Local Government in their support for land use criteria than there was for access criteria showing greater vertical integration in this area (Table 6). Local government planning schemes also showed more consistent support for land use criteria than they did for the access criteria. Like the state government policy documents, local planning schemes were far more likely to be supportive of the more general land use planning criteria than the more specific details on the configuration of individual buildings and their relation to the street. Support for higher density in places where there was more activity was comparatively prevalent among local planning schemes, however general support for medium to high densities was far less, with many planning schemes having components that worked against this, or mixed positive and negative statements (Curtis, Armstrong 2009). Local planning schemes also showed higher support for particular parking criteria,[8] but parking was also an area were negative or ambiguous

[8] Car parking areas managed so pedestrian access, amenity and safety not compromised; Car-based retailing (drive-thru') and light industry located on periphery of town with good car access.

content within local planning schemes was prevalent.[9] It is significant that whilst all but one of the land use criteria received support at the state government level, no more than 2/3rds of all local planning schemes supported any one criteria, and several of the land use criteria had only few local governments providing support in their local planning schemes. The best coverage of Land use criteria in any planning scheme in Perth was 10 of 18 criteria, with 3 schemes achieving this level of coverage. The worst scheme was only supportive of one of the criterion (Curtis, Armstrong 2009). For the few local governments that had them, local transport strategies provided fair support for the land use criteria, covering 5 or 6 of the 18, albeit frequently as weakly supportive (Curtis, Armstrong 2009).

Table 6 Vertical integration - Comparison of presence of support for LAND USE criteria in state policy to local planning schemes for Perth and Melbourne

LUTI CRITERION	**Perth State Planning Policy**	**Perth Local Planning Schemes**		**Melbourne State Planning Policy**	**Melbourne Local planning content**	
LAND USE	Support present	% pos	R	Support present	% pos	R
1. Land use configuration – Land use integrated with integrated transport	YES	69 %	2	YES	83%	3
2. Land use configuration – A robust urban form – Can adjust to changes in demand for transport and land use.	YES	3%	2	YES	48%	3
3. Land use configuration – Greater diversity, vibrant mix of land uses within precincts	YES	53 %	3	YES	80%	3
4. Land use configuration – Greater diversity, vibrant mix of land uses and within buildings	YES	28 %	3	YES	29%	3
5. Land use configuration – High pedestrian trip generating uses at ground floor, housing above in close proximity of transit stop;	NO	22 %	2	YES	64%	3
6. Land use configuration – Buildings oriented to station/streets/paths;	YES	9%	2	YES	41%	3
7. Land use configuration – Active ground floor uses for surveillance;	YES	3%	1	YES	32%	3
8. Land use configuration – Frontage development – human scale.	YES	3%	1	YES	48%	3
9.Density/Intensity – Highest residential density in close proximity to activities (but ensure includes family housing types);	YES	53 %	3	YES	74%	3
10. Density/Intensity – Medium to high residential densities;	YES	25 %	3	YES	67%	3
11. Proximity – Compact cluster of related (compatible) activities (highly visited) in close proximity (walking distance), clustered around rail station/high frequency bus stop;	YES	25 %	2	YES	70%	3
12. Proximity – More intensive/ high-medium density office, retail and other commercial uses (measured by high worker densities) within walking distance of transport facilities.	YES	22 %	1	YES	61%	3
13. Parking – Car parking areas managed so pedestrian access, amenity and safety not compromised;	YES	63 %	3	YES	51%	3
14. Parking - Parking provided in shared structures rather than on individual sites;	YES	41 %	3	YES	22%	3
15. Parking - Car parking behind buildings not fronting street	YES	9%	3	NO	61%	3
16. Parking - Street parking	YES	22 %	3	YES	19%	2
17. Parking -Short-term parking but limited commuter parking;	YES	13 %	2	NO	16%	3

[9] In particular, for Parking provided in shared structures rather than on individual sites and Car parking behind buildings not fronting street.

18. Parking - Car-based retailing (drive-thru') and light industry located on periphery of town with good car access.	YES	50 %	3	YES	32%	3
Key						
% schemes with positive reference to LUTI criteria (% pos)	1-24 %	25-49 %	50-74%	75-100 %		
Highest Rating achieved in any local planning scheme (R)	3	2	1	0	-1	-2	-3

Vertical integration between state and local government is best reflected in the sub-category of land-use configuration for the criteria: "LU1 -Land use integrated with integrated transport' and "LU3 - Greater diversity, vibrant mix of land uses within precincts', with broad support across state government policy, and a larger proportion of local government planning schemes all supporting these criteria. There is also good vertical integration for the density and intensity criteria: "LU9 -Highest residential density in close proximity to activities'.

Melbourne: There are no complete gaps in coverage across Melbourne local planning provisions as a whole. There is a broad range of performance though, with Greater Dandenong supporting 14 out of the 18 criteria, while Cardinia only supporting one criterion. Even though all land use criteria are supported in at least a few local governments, no local government is supportive of all of them.

There are several criteria that received either mixed positive and negative, or solely negative policy support in particular planning schemes. Criterion 'LU10 - high or medium densities' received the most mixed or negative comments. Criteria 'LU3 -Greater Diversity, vibrant mix of land uses within precincts' and 'LU17 - Parking- Short term parking but limited commuter parking' both had two local governments possessing comments that worked against the criteria. Both these criteria relate to land use configuration and parking, two areas that, as with state level documents, were underrepresented by policy statements in the schemes.

The local transport strategies, although not reported in the tables, contain significant gaps in coverage of land use criteria. Again there is variation between local governments with City of Melbourne's local transport strategy being the most comprehensive strategy in coverage despite addressing only 7 of the 18 criteria, while Knox's transport strategy did not address any of the criteria. Criterion 'LU1 - Land use integrated with integrated transport' received the most overall coverage by far, but was not supported by comprehensive coverage of other land use criteria in any of the strategies.

People Places

State

Perth: Two of the ten people places criteria were not supported in any State government policy document: 'PP4 - Diversity of architectural styles' and PP9 - More social encounters due to more walking, cycling, use of public transport' (Table 7). Overall, both in terms of breadth of coverage and strength of support, State policy is weaker for people places criteria than it is for access or land use criteria. Unlike Melbourne, where at least one document, *Melbourne 2030*, provides broad coverage of people places criteria, no state document in Perth supports more than six of ten criteria.

Table 7 Perth and Melbourne State policy Documents Comparison – People Places

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Perth - Strategic										
State Planning Strategy						2	1			
Metropolitan Transport Strategy		1								
Network City		1	3		1	2		3		1
MetroPlan 1990		2	3		1	2		2		
Perth - Statutory										
Liveable Neighbourhoods	2	2			3	3	2			
WAPC SPP 3 Urban Growth Settlement			1			1	1			
WAPC DC 1.5 Bicycle Planning										
WAPC DC 1.6 TOD	1	3			3	2				1
WAPC DC 2.6 Residential Road Planning	3				1					
Melbourne - Strategic										
Melbourne 2030	3	2	2		2	3	1	3	2	2
Activity Centres Implementation Plan		2	2			2	2	2	1	
Integrated Transport Implementation Plan										
Growth Areas Implementation Plan			1			1				
Housing Implementation Plan						1				
Linking Melbourne										
Meeting Our Transport Challenges						2				
Melbourne - Statutory										
Victorian Planning Provisions		2	2			1	1			
KEY										
Highest Rating achieved	3	2	1	0	-1	-2	-3			

Melbourne: People Places criteria is poorly supported at the state level with only two criteria being supported by more than half of the state documents (Table 7). *Melbourne 2030* is the prominent document, addressing 9 of the 10 People Places criteria, though this level of coverage is not repeated in the associated implementation plans. The *VPP* only addresses 4 out of 10 of the criteria and two of those only weakly support the criteria. The transport strategies are very poor in regards to their attention to people places criteria which could support some of the associated policy objectives identified in the areas of access and land use. *Meeting Our Transport Challenges* only addresses 'PP6- High amenity places', while *Linking Melbourne* does not address any of the criteria.

Local

Perth: There is much more consistent support for People Places criteria across local planning schemes in Perth than there was for the Access and Land Use criteria: half of the people places criteria are supported by more than 85% of local government planning schemes (Table 8). Compared to Melbourne, there is more consistent support for these criteria in Perth. Both of the criteria that are not supported at the state government level: 'A4 - Diversity of architectural styles' and 'A9 - More social encounters' are also minimally supported among schemes. A notable gap in Perth local government planning scheme was in the area of legible design. This gap is not present across

Melbourne local planning schemes. A notable finding among Perth local planning schemes was that while all schemes support PP3 – respecting existing development.

Table 8 Vertical integration - Comparison of presence of support for PEOPLE PLACES criteria in state policy to local planning schemes for Perth and Melbourne

LUTI CRITERION	Perth State Planning Policy	Perth Local Planning Schemes		Melbourne State Planning Policy	Melbourne Local planning content	
PEOPLE PLACES	% pos	% pos	R	% pos	% pos	r
1. Scale and Design - Human scale – less demand for 70kph scale advertising, more sense that cars are not the priority mode;	YES	50%	3	YES	45%	3
2. Scale and Design - Integration of character and scale of development within precinct;.	YES	94%	3	YES	83%	3
3. Scale and Design - Respecting existing development (through retention or sympathetic redevelopment);	YES	100 %	3	YES	74%	3
4. Scale and Design - Diversity of architectural styles;	NO	16%	3	NO	41%	3
5. Scale and Design - Legible design – is easily understood for residents and visitors.	YES	0%	-	YES	48%	3
6. Amenity - High amenity precincts – a place you want to go to – a destination in its own right	YES	91%	3	YES	77%	3
7. Amenity - Community/neighbourly feel – mixed ages – family friendly.	YES	88%	3	YES	38%	3
8. Amenity - Good 'people places' – public open space, public seating, public art.	YES	91%	3	YES	71%	3
9. Amenity - More social encounters due to more walking, cycling, use of public transport.	NO	9%	3	YES	22%	3
10. Amenity - Busy places	YES	16%	1	YES	54%	2
Key						
% schemes with positive reference to LUTI criteria (% pos)	1-24 %	25-49 %		50-74%	75-100 %	
Highest Rating achieved in any local planning scheme (R)	3	2	1	0	-1	-2	-3

Melbourne: In contrast, people places criteria receive more consistent support from the local government level. Only 7 out of the 31 local governments covered less than half of the criteria. Criterion PP2 Integration of character and scale of development within the precinct was most comprehensively addressed with 26 of the 31 local governments having statements that positively addressed it. Although some criteria did not standout due to the coverage they received, they did contain a high percentage of supporting statements strongly reflecting the criteria. These were related to diversity of architectural styles and legible design and it is interesting to compare this to the state level coverage and rating which was much poorer. The local transport strategies showed very little policy support for People Places criteria, with only 2 out of the 10 criteria represented.

Discussion and Conclusions

The capacity of governments to implement policy and invest in integrated land use and transport decisions has emerged as an important urban policy across the world. In Australia there is a National Charter on Integrated Land Use and Transport Planning and at the state level, in Western Australia, the metropolitan local governments have an 'Integrated Transport Planning Partnering Agreement' with the objective of working cooperatively with the state. However, bringing together the policy tools to achieve optimal planning outcomes in such a way to aid delivery is an ongoing challenge.

The overarching question in this paper is whether or not there is capacity to deliver LUTI as evidenced by the planning and transport policies of two Australian cities. A comprehensive suite of land use transport integration principles were developed to frame policy content analysis and are grouped into three key components: 'access', 'land use', and 'people places'. Policy statements were assessed, recording whether these made both a positive or negative (productive or counter-productive) contribution towards LUTI and a how well (or poorly) the policy statement performed in relation to satisfaction of LUTI criteria.

The results of the content analysis show that there is a commitment to many of the principles that enable the integration of land use and transport. At the state level in both cities 46 of the 49 LUTI criteria were reflected somewhere in the policy documents; access was fully covered; in land use – for Perth the only criterion not covered was vertical mixed use (A5) and in Melbourne the gaps related to two parking criteria; for people places, neither city had state policies addressing the diversity of architectural style and Perth did not include policy on the design of space to improve opportunities for social encounters. The capacity at the state level was stronger in strategic policies than in statutory. Statutory policy at the state government level, compared to the statutory local planning schemes, shows a broader coverage of the LUTI principles. In local planning schemes, the representation of LUTI criteria is particularly patchy in Perth compared to Melbourne. In Perth gaps can be seen in relation to the public transport service criteria, and while they were covered in Melbourne, far fewer schemes covered some of these items. It is only at the local government level where some planning schemes can be seen to work against some access criteria.

For both cities a significant proportion of local governments did not include all criteria and, therefore, can be seen to reflect varied capacity to implement LUTI across local government, and often, a limited capacity to support LUTI. Of particular note, however, is that whilst coverage of criteria was patchy at this level, most of the criteria were covered in at least a few local planning schemes. This suggests that local government can be supportive of many of the criteria; so there is potential for improvement.

On the whole, while there is capacity for LUTI, the strength of that capacity remains an important question. This can be considered in relation to the rating score as well as the status of a particular policy document. Coverage of land use criteria is slightly stronger in the suite of state government documents than in the local planning schemes, but where these criteria are included in Melbourne they score highly and more so than Perth where local planning schemes are most likely to be only weakly supportive of them. In Perth access criteria score poorly in contrast to Melbourne where they score high and coverage across local government in Melbourne is also much higher than Perth. For people places criteria, almost all criteria were scored high for local governments in both cities.

The degree of vertical integration between the state and the local government level is clearly evident not only by following the consistency of policy messages between the two, but also by examining the

gaps in LUTI policy. State and local government policy in Melbourne show far better vertical integration than they do in Perth. Vertical integration, however, is evident only at a basic level and there is not a level of sophistication that would indicate a successful model of policy integration along this dimension. In Melbourne the format requirements of the Victorian Planning Provisions guarantees the inclusion of state policy directives into local government level. However, this also suggests that the strength of the policy commitment at state level has a significant influence on the strength at the local level. Stronger policy support of LUTI objectives in the state statutory document would certainly facilitate stronger policy statements in local planning schemes but this is not comprehensively evident. There is a broader trend in the translation of state policy to the local level, where the highest degree of vertical integration is associated with the LUTI criteria that contain less specific detail for planning, such as a commitment to integrated transport being integrated with land use and that development takes place in areas well serviced by public transport. In relation to particular LUTI categories, 'access' considerations are less integrated than 'land use' or 'people places'. Less well vertically integrated are those criteria that necessitate a degree of negotiation and co-ordination with outside stakeholders, such as building orientation and parking provision, which mainly would involve interaction with private developers.

The access criteria gaps at both levels of government clearly exist in some criteria relating to traffic management and operational aspects of public transport service provision. Despite the evidence of some commitment and innovation towards addressing these criteria at the local level through partnering agreements, the clear absence of strong policy support at the state level is further reflected in the absence of policy in the majority of local planning schemes. State government has wider scope to influence outcomes in both traffic management and public transport service provision so it is natural to expect stronger policy support at this level. However, while public transport service provision is supported, the ratings are weaker. In Melbourne this may be a result of the privatised public transport service, where government is less empowered to implement, although the weak scores for Perth (where the public transport service remains in state control) would not concur with this. The difference between Melbourne and Perth in terms of local government support for access criteria is more pronounced than at the State government Level. The overall view is that Melbourne is both more supportive at the State government level, and this policy direction is more likely to be reflected in local content of the Melbourne local government Planning Schemes.

From this first stage of research there would appear to be benefits in introducing a number of measures aimed at improving the capacity of state and local government to deliver LUTI. There needs to be an improvement to the mechanisms to ensure state policy is articulated into local government policy. The standardised format of the Melbourne Planning Scheme may go some way to resolve this. However this is only part of the way forward, without strong commitment to clear LUTI policy at the state level, articulation of policy may occur but with little overall value. Capacity building could further be achieved by introducing new forms of policy instrument. In this respect the few Local Transport Strategies that were in use in a limited way showed great promise and a statutory

requirement for all local governments to produce one, similar to Local Transport Plans prepared in the UK may prove beneficial not least in requiring governments to bridge the gap between access and land use considerations. Finally, the fact that some governments demonstrated good capacity would suggest that the need for wider dissemination of practice, the 'showcasing' of policy exemplars in professional workshops may also offer value.

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