



## Land use/transport integration: Starting at the right place



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### ABSTRACT

Urban transport problems are increasingly being tackled as part of integrated land use/transport strategies. Thredbo 12 discussed high level goals against which urban public transport systems and services should be assessed and highlighted the importance of taking an integrated approach to land use/transport planning. It did not elaborate on how to achieve integration. The Melbourne Metropolitan Planning Strategy, in preparation, has provided an opportunity to explore this question. This study has underlined the importance of understanding structural economic changes that are influencing a city's economic geography, extending the idea of what should be part of an 'integrated approach'. This structural economic approach has highlighted the importance of land use/transport solutions that differ from what might normally feature in a narrower transport prioritisation process. The Melbourne study has taken both top down and bottom up approaches to strategy integration, which has also widened the emerging strategic transport priorities from those that meet trunk service needs to also include local or neighbourhood level services. These can play important roles in promoting social inclusion and improved wellbeing. The paper reviews the strengths and weaknesses of the Melbourne study and suggests ways in which it can contribute to better practice in integrated land use/transport strategic planning.

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### 1. Introduction

Workshop 3A at the Thredbo 12 Conference explored the high level social goals against which public transport services should ultimately be judged, building on deliberations in preceding Thredbo Conferences (Stanley & Smith, 2013). Workshop participants highlighted the significance of land use/transport integration, in particular, for successful transport outcomes, with long term land use strategies (e.g. 25–40 years) leading long term transport strategies and being linked to shorter term implementation plans (e.g. 5–10 years). The workshop did not elaborate on how to best achieve such an integrated approach or what difference it might make to transport priorities.

This paper builds on the integration findings from Thredbo 12. It uses a case study approach to discuss the development of an integrated land use/transport strategy for a major city and the types of (public) transport priorities that might emerge there from, contrasting these priorities to those that might result from a narrower transport planning framework. The case study is for Melbourne, Australia, where the author has been deeply involved in

developing a new integrated land use/transport strategy for the city over the past year, as a member of the small independent Ministerial Advisory Committee established to assist the Victorian State Ministers for Planning and Transport prepare the new strategy.

Section 2 provides some background on emerging good practice in land use/transport strategies, as a basis to consider the Melbourne study. Section 3 summarises key challenges facing Melbourne's long term land use/transport planning, focussing particularly on the importance placed on understanding the major structural economic changes that are affecting the city's economic geography and outlook. It also outlines the vision and goals of the strategy. Section 3.4 discusses the major land use directions that have been identified as likely to support high level goal achievement. Section 3.5 sets out the major transport directions that should assist achievement of the intended land use outcomes. Section 4 highlights the main strengths and weaknesses of the Melbourne study and suggests several key lessons that have emerged, which may help to improve practice elsewhere.

### 2. Emerging good practice in integrated land use/transport strategic planning

A text book could be written under this heading but, instead, the focus will be kept to a small number of important contextual

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matters that have been highlighted in some recent literature relevant to integrated land use/transport planning.

Transport policy has now largely moved beyond the 'predict and provide' days, in which supply responds to demand (one goal). The pursuit of triple bottom line sustainability goals is now usual, with demand management one policy focus to assist achievement. Integrated long term land use/transport strategies now almost universally list variants of the triple bottom line (economic, social and environmental) sustainability goals as their strategic goals, with particular priorities between goals reflecting local circumstances.

More broadly, Chapin (2012) has argued that Sustainable Growth is emerging as the fourth era of urban planning over the past sixty years. The three preceding paradigms are described as Era of Growth Controls (~1950–75 in the US), Era of Comprehensive Planning (~1975–2000), Era of Smart Growth (~1990 – present day). Key defining issues of the Smart Growth Era are listed by Chapin as environmental degradation, infrastructure provision, place making, urban economic development and those for the Sustainable Growth Era are economic development, environmental degradation, climate change, energy demand and supply. In the Smart Growth Era, growth is seen as an opportunity for strengthening urban communities; in the Sustainable Growth Era it is seen as inevitable and essential but needing to be balanced against the long term sustainability goal (from Chapin 2012, Table 1).

The pursuit of multiple objectives underlines the importance of **policy packaging** (Givoni, Macmillan, Bannister, & Feitelson, 2013). Access to jobs, education, services, friends, recreational and cultural opportunities and the like are common reasons why people need to move around cities, reflecting the derived demand for most travel. Accessibility ties land use and transport together. Policy packaging for transport in cities over the long term is fundamentally about integrating land use and transport to enhance accessibility and reduce external costs.

Givoni et al. (2013) suggest that both the value from, and complexity of, policy packaging will increase with the spatial scale of the problems being considered. Highlighting both the systemic and political dimensions of policy packaging, they propose a three stage **heuristic framework** for such packaging, comprising: (1) objectives and targets; (2) causal theory and measure inventory; and (3) dynamic ex ante appraisal and packaging. This framework provides a useful way of thinking about how to undertake an integrated land use/transport plan for a major city and, more specifically, about how to analyze what has been done in a particular study, such as the Melbourne case study.

Transport policy responses to the multiple, pressing and near universal city problems of traffic congestion, air pollution, greenhouse gas emissions, a high road toll, energy insecurity, social exclusion and increasing obesity from a lack of exercise are increasingly looking to long term, land use based, solutions, as part of an integrated policy approach. The long term response typically focuses on achieving **more compact urban settlement patterns** (higher densities), which are widely thought to help manage/reduce most of the transport problems listed. This focus is reflected in such movements as Smart Growth, New Urbanism and Transit Oriented Development (see, for example, Haas 2008). Hall (2008, p. 48) describes new urbanism as follows:

Every planner and every plan repeats the same mantra: compact urban places, designed for walking and cycling and public transport; densities to support that objective; mixed uses, especially in and around town centres; a return to traditional urban designs with sidewalks and street blocks ...

The critical needs are densities to ensure shops within walking distance and good access to transit.

Links between **regional** and **neighbourhood** level built form variables (e.g. density, distance from the CBD, diversity of land uses, street network connectivity, distance from transit) and travel, particularly kilometres of motor vehicle travel, tend to be small in relation to individual policy measures but can be significant when policy packaged (Ewing & Cervero, 2010). Levine, Grengs, Shen and Shen (2012) have shown that accessibility levels can be improved with more compact urban development patterns, even if congestion levels increase.

The focus on achieving more compact cities has primarily concentrated on increasing densities through high rise development in central/inner areas, where accessibility levels are usually highest. However, there is growing interest in increasing densities through medium rise development in established inner/middle ring suburbs, with a focus on creating complete communities. This is reflected, for example, in the Prince's Foundation's (2014) argument for accelerated mid-rise development in London and the US Urban Land Institute proposals that US compact development put greater emphasis on increasing densities at medium rise levels along commercial corridors, suburban arterials and other transit-supportive locations (ULI, 2012). Achievement of policy and program alignment across multiple governmental entities, such as neighbouring local councils and various agencies of the state or provincial government, is usually an important element in successful delivery of such inner/middle ring infill.

The Cambie Corridor in Vancouver is a good example of this increasing interest in lifting densities through medium rise development. The new 19 km Canada Line runs underneath Cambie Street for much of its length in Vancouver. The improved accessibility created in the corridor by the Canada Line provides an opportunity for higher density development along the corridor, which will emphasise mid-rise building forms with higher densities at some of the most accessible locations. The principles guiding corridor development reflect integrated land use/transport planning but go further, reflecting the pursuit of triple bottom line outcomes (City of Vancouver, 2011):

1. Provide land use that optimizes the investment in transit
2. Provide a complete community
3. Create a walkable and cycleable corridor of neighbourhoods seamlessly linked to public transit
4. Focus intensity and community activity at stations and other areas with strategic opportunities for sustainability, renewable energy and public amenity
5. Provide a range of housing choices and affordability
6. Balance city-wide and regional goals with the community and its context
7. Ensure job space and diversity.

The focus on providing complete communities and affordable housing opportunities is important, since many examples of transit oriented development fail in these areas (Robert Cervero, pers. comm.). Land use transport integration can thus be seen as a necessary but not sufficient requirement for achieving cities that meet triple bottom line goals.

### 3. Melbourne Metropolitan Planning Strategy (MPS) 2012–13

#### 3.1. Context

The concentration of people in cities increases productivity and liveability, through what economists call 'agglomeration effects' in production and consumption (Graham & Melo, 2011; Melo, Graham, & Noland, 2009; Rosenthal & Strange, 2003). Relative

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