

A Marriage of Convenience?

Rail-Supportive Transport Policies and Urban Consolidation in Station Precincts in Australia and Europe

Jan Scheurer

Annette Kroen

School of Social Science and Planning

RMIT University

Email: jan.scheurer@rmit.edu.au

Email: annette.kroen@rmit.edu.au

ABSTRACT

The interplay and the coordination of rail infrastructure investment and urban development has been a recurrent theme in urban planning ever since the late 19th century. Influenced by the New Urbanism movement and by the sustainability debate questioning the resource efficiency and socio-economic opportunities of car-based, low-density and functionally segregated settlement structures, the concept of rail-oriented development has gained much currency in Australian cities since the 1990s. Perth's Network City paradigm and the Melbourne 2030 metropolitan strategy reflect this policy shift. Meanwhile, rail-oriented development has also become an important directive for urban growth in Europe, where it is seen as an antidote to a trend of incremental, functionally disintegrated development at a regional scale.

This paper looks at the motivations, institutional frameworks, goals and preliminary results of Victoria's *Transit Cities* program – a key element of the Melbourne 2030 strategy – and the French-German project *Bahn.Ville* which examined several rail lines in Germany and France regarding their suitability to act as anchors for urban development, and the roles of key actors in the planning and implementation process. It compares these two programs against a background of recent literature on the potential for improved sustainability performance in urban and regional development where transport and land use are coordinated. It examines the extent and character of institutional synergy as well as disconnection between stakeholders and points at some successful examples of collaboration. It will critically assess the scope for change towards more public transport-oriented settlement and mobility patterns in both projects, argue for more integrated structures of governance for transit-oriented development, and highlight how both the Australian and European examples could benefit by learning from each other's strengths and weaknesses.

INTRODUCTION

Like any attempt at policy integration, the successful delivery of rail-oriented development hinges on interagency collaborations that may challenge both entrenched institutional cultures as well as established avenues of communication between stakeholders. Government departments with a tradition of specialisation in their subject area – in this case, land use planning, rail infrastructure planning and public transport service coordination – are required to synergise their expertise and overcome potentially conflicting agendas. The development industry, looking back on decades of optimising its investments around single-use products, finds itself similarly challenged by the

programmatic demands of rail-oriented developments, calling for integration and concentration of various land uses in one site. Finally, there is the not unsubstantial task of gaining the support of transport users, businesses and residents for rail-oriented development – both in the political arena, in the marketplace and in determining the daily interactions of the community.

This paper will examine two policy initiatives from Australia and Europe which aim at facilitating both the emergence of suitable physical forms for rail-oriented development, and the instigation of suitable partnerships of collaboration conducive to their successful delivery. By highlighting the degree of depth to which policy makers manage to address the complexity of the task in each project, we will show the barriers and opportunities of rail-oriented developments to move beyond haphazard ‘marriages of convenience’ between competing stakeholder interests, and towards new forms of collaboration that create synergies and achievements far beyond the scope of each party’s own discipline and authority.

The comparison of the Victorian Transit Cities program and the French-German *Bahn.Ville* project will also serve to exemplify and illustrate the extent to which the understanding and implementation of rail-oriented development differs between Europe and Australia, and how these differences translate into effectiveness of the schemes to meet their goals. Finally, we will point at successful elements of the strategies on either continent that may bear some inspiration to resolve conflicts and shortfalls apparent on the other.

RAIL-SUPPORTIVE TRANSPORT POLICIES AND TRANSIT-ORIENTED DEVELOPMENT

Focusing development around public transport stations has become an important policy element for efforts to curb sprawl and reduce traffic congestion. It is seen as a significant tool to improve accessibility, support community development and liveability objectives, and to increase the financial returns on public transport investment.

The orientation of development around public transport is a time-honoured concept. From the end of the 19th century, transit villages developed around urban and regional train and tram lines (Belzer and Autler 2002, Forster 2004). However, after the Second World War this practice disappeared in most cities, with the automobile becoming a mode of travel affordable for most people. Increasing mass motorisation led to an expansion of urban settlements into the hinterland and away from established public transport corridors, where cheap land could be made readily available for development (Kutter and Stein 1996). However, many car-oriented post-war suburbs failed to deliver the level of amenity often found in early 20th century transit villages, such as comfortable and enjoyable streetscapes, vibrant and interactive public spaces, and combinations of land uses that invite people to use them intensively.

The strategy of rail-oriented development regained new interest in the early 1990s in conjunction with the concept of sustainable development and the New Urbanism movement. In the United States transit-oriented development (TOD), as it is called there, is intricately linked with the concept of Smart Growth, an alternative template to uncontrolled suburban sprawl (Benfield, Raimi and Chen 1999). TOD is not simply defined in physical terms, it is also about community development and neighbourhood character and attempts to blend different land uses, densities and housing types into urban environments that encourage walking, cycling and the use of public transport at the expense of excessive car mobility (Dittmar and Ohland 2004, Cervero et al 2004, Renne 2005). Further sustainability benefits linked with development around public transport facilities include improved air quality, reduced rates of suburban land-take and preservation of open space, and the creation of built environments that encourage social and economic interaction. To lend shape to these visions, the New Urbanism movement aims to construct new suburbs in the form of traditional small towns with a pedestrian scale, and clearly defined centres with public spaces, public buildings, a transit stop and retail businesses. The ideal is to have commercial and community facilities clustered within walking distance from most residents, an interconnected street

network, and housing with a mix of density, dwelling types and affordability (Calthorpe 1993, Katz 1994, Duany 2003).

In many European cities, the concept of orientating development around urban rail never quite fell out of fashion to the extent it did in most of North America. Some cities, notably Copenhagen and Stockholm, pursued ambitious urban growth strategies with a prominent role for integrated rail and land use corridors even after 1945 (Cervero 1998). However, the co-consolidation of development and urban rail in inner and middle suburbs often went hand in hand with a decline of regional rail (and bus) services, and a surge in incremental, low-density development in the outer parts of metropolitan areas. Many European cities now have cores with strong public transport systems and relatively lean car use, but are surrounded by belts of scattered, car-dependent patchworks of settlement, unserved by adequate public transport and producing travel patterns not unlike their North American and Australian counterparts. This situation is further exacerbated by the increasing functional connectivity of metropolitan regions in a densely populated continent (CEC 1999, Musterd and Salet 2003), facilitated by fast road, rail and air links delivering a new centrality advantage to previously remote regions between, but not too distant from, metropolitan centres (Bertolini and Dijst 2003).

In the light of these challenges, the view on rail-oriented development in Europe is born more immediately out of the sustainability debate. Integrating transport and land use in both urban and ex-urban or regional areas is regarded as a tool to tackle the disjointed character of suburbanisation and to facilitate the return of viable high-quality public transport to places away from the densely built-up cores of large cities. Rail-supportive policies are intended to direct settlement growth around existing or revitalised rail lines, to provide people with the choice to use other modes than the car, and to develop nodes of activity in areas previously dominated by functionally segregated patterns of development (Wulfhorst 2002). Regional planning schemes therefore seek to prioritise development around public transport stations, and in some cases reactivate rail lines closed in the past (ILS 2003). *Bahn.Ville*, the study on rail-oriented development discussed in more detail below, looks at best-practice case studies of such strategies in France and Germany (Prêtsch et al 2005).

In Australia, renewed interest in the concept of rail-oriented development coincided with the popularity of New Urbanism-inspired growth and redevelopment patterns, as an extension of the intent of such schemes to facilitate less car-oriented activity patterns and lifestyles through greater walkability and functional diversity of neighbourhoods (Scheurer and Buxton 2004). In every large Australian capital city, there are now strategic plans for rail-oriented development (Newman 2005). In Sydney, transit villages exist at Bondi Junction or Parramatta, and there is an initiative for a new urban rail corridor linking outer urban growth areas with hubs of business activity in central locations (Downs 2005). In Melbourne, the Transit Cities program, discussed in more detail below, aims to increase built density, functional diversity and urban design quality around a selection of strategic rail hubs (DSE 2005). Perth has a Network City strategy attempting, among other things, to foster land use and transport integration and reduce car dependency, with the new 74-km South West Metropolitan Railway as a demonstration project (WAPC 2004). For Brisbane, the South East Queensland Regional Plan contains higher density centres with public transport. Adelaide's new regional plan also makes statements about integrated land use and transport.

TRANSIT CITIES

The Victorian Government's Transit Cities Program acts as an implementation mechanism for the overarching Melbourne 2030 Strategy, which has been developed to manage growth and change across metropolitan Melbourne (DOI 2002). Between 2001 and 2031, Melbourne's population is projected to increase by at least one million people and 634,500 households (DSE 2004).

Melbourne 2030 attempts to manage this growth by a twin strategy: An urban growth boundary places greater controls on outward expansion at the urban fringe, while an activity centre policy aims to capture more new residents and jobs in strategic locations within the established urbanised area. In this context, the Transit Cities program intends to consolidate, diversify and densify

existing nodes around major rail stations, to offer residents and businesses the possibility to locate near high-performing public transport and within a precinct with easy access to a range of shops, services and job opportunities. It also intends to encourage more housing choice by meeting increasing demand for housing suitable for one-and two-person households.



Transit Cities in Victoria
Source: DSE 2005

Nine metropolitan and four regional centres have been selected to adopt and implement the Transit Cities program and undergo a process of urban renewal. Ballarat, Bendigo, Geelong and Latrobe Valley are the regional centres, nominated in conjunction with the regional Fast Rail project, while the centres with metropolitan Melbourne are Box Hill, Broadmeadows, Dandenong, Epping, Footscray, Frankston, Ringwood, Sydenham and Werribee (see map). These centres range in character from long-established mixed-use town centres on a traditional street grid (particularly Frankston and Footscray) to large stand-alone commercial centres in the general vicinity of, but without developed functional connections to, rail stations (particularly Epping and Sydenham).

In the following, we will briefly compare some experiences from the Frankston and Epping case studies, to illustrate the opportunities and constraints faced by the Transit Cities program on the ground.

Frankston

The outer metropolitan sub-centre of Frankston is located at the eastern shore of Port Phillip Bay and the terminus of the suburban train line carrying its name. Frankston was already a significant township before suburbanisation filled the roughly 40 km distance to central Melbourne. At the heart of a municipality of about 110,000 inhabitants (ABS 2002), Frankston acts as a gateway between Melbourne and the popular recreational areas of the Mornington Peninsula to its south. However, recent decades had seen the town centre in decline, blighted by poorly designed and integrated commercial development unconnected to the nearby waterfront, insufficient residential uses, a lack of social and economic diversity, and sub-optimal public spaces that were widely perceived as unsafe.

In this situation, the Transit Cities program represented a critical opportunity, and effectively the first serious attempt, to undertake comprehensive precinct planning in central Frankston. It led to the exploration of redevelopment scenarios that would reconnect the town centre with the bay, attract new educational and entertainment facilities around much improved public spaces, and open up under-used land for new housing and businesses. Well-attended design workshops captured the imagination of the community and the local media and kick-started an investment boom that saw the \$2.7m spent by State Government on Transit Cities measures in Frankston leverage some \$140m from the private sector (DSE 2005). The critical role of the Transit Cities team in this process has been that of a facilitator and communicator, creating the vital linkages between other State Government agencies, Frankston City Council, developers and community groups to achieve far better outcomes than what each of these players could possibly have initiated on their own (Schuette 2005). As examples, the City Council and the Victorian Police jointly opened a Community Safety Centre opposite the train station to address safety concerns in the area, and the redesign of a critical east-west street as the main pedestrian link between station and waterfront

encouraged the plan for a large-scale entertainment complex, since built, to change its orientation towards a pedestrian plaza.

However, despite the potential for additional patronage from the urban consolidation of the station precinct, to date the Frankston train line has not been subject to service improvements of any kind compared to the status quo before the inception of the program, and while there have been physical improvements to the bus interchange at the station (as well as its accessibility to both pedestrians and park-and-ride customers), the same holds true for the connecting bus services. Thus the Transit Cities project in Frankston has been far more about the 'City' than it has been about 'Transit': A timely revitalisation strategy for an ailing suburban centre with innovative land use and urban design interventions, but only marginally concerned with practical improvements to public transport accessibility.

Epping

In Epping, such reluctance to match land use planning with public transport improvements could well become the undoing of the Transit Cities project there. Like Frankston, Epping is located at the terminus of an existing suburban train line, approximately 20 km north-east of central Melbourne, but unlike Frankston, it does not have the structure of a traditional township. Instead, a patchwork of large-scale, single-storey commercial uses, health and education facilities and some pockets of single-family residential neighbourhoods interlaced with heavily trafficked roads and vast parking lots make up a conglomerate of activities that is all but unnegotiable for pedestrians and almost consistently turns its backs to what could become the public realm holding it together. The City of Whittlesea, within whose jurisdiction Epping is located, is one of Melbourne's designated growth areas, set to accommodate 100,000 additional residents over the next 20 years in new Greenfield residential areas carefully arranged in corridors within the urban growth boundary. The council interprets Transit Cities as a redevelopment strategy for all its rail station precincts – Epping as well as the smaller centres of Lalor and Thomastown further south, and the new town centre at South Morang, already home to the council offices and the first stage of what is poised to become a mixed-use commercial district. Like pearls on a string, these four centres are intended to form the transit-oriented spine of a fast-growing residential corridor, with a longer-term plan to extend it further outward to another two rail-oriented future town centres in Aurora and Mernda (Shaw 2004, Cooke 2005).

The problem with this ambitious concept is that there is no train line at South Morang. Tentative election promises as well as a mention in the Melbourne 2030 document have hinted at a 3 km extension of the Epping line along an existing rail reserve, but as yet, no financial commitments or timetables for construction have been put forward by State Government as the likely sole funding source. Additionally, the capacity of the existing line is restricted by a long single-track section which would require duplication if substantial service improvements were to become part of the Transit Cities package. The City of Whittlesea is now in the unfortunate position of master-planning several transit-oriented town centres which may well end up lacking their most crucial ingredient – first-class, rail-based public transport – for years to come, if not permanently. Whittlesea's growth areas may find themselves provided with the *shell* of a transit-friendly urban form, but without the *substance* of infrastructure and services to support less car-dependent mobility patterns (see Newman 2005).

BAHN.VILLE

Bahn.Ville is a German-French project which looks at the integration of land use and transport planning, rail-oriented development and its implementation in both countries. The integration of land use and transport in Germany and France is influenced by different parameters on the national level as well as on the state or regional level. While in Germany the planning system is affected by the federal structure, a nationally organised planning system dominates in France. The planning system in France changed considerably with the introduction of a new law for sustainable urban

development at the end of 2000 (*Loi Relative à la Solidarité et au Renouvellement Urbains* or *Loi SRU*, Booth 2003).

Social and economic policy in both countries does not necessarily act in support of rail-oriented urban development. For example, some fiscal instruments in Germany (eg. home owner subsidy, tax-free commuter allowance) have been shown to encourage settlement dispersal and lead to a continuous growth in traffic volumes (Prêtsch et al. 2005). In France, there is also a continuing trend towards single-family detached housing away from established settlement structures. For many households, proximity to rail stations is not a dominant factor considered in residential location decisions, and the lack of public transport access is likely to be countered by multiple car ownership.

The project *Bahn.Ville* started in 2001, with the first project stage completed in 2004. Partners of *Bahn.Ville* are, among others, two German and two French research institutes, and the two national rail companies. The aim of the project is to work out the importance and the potential of integrated spatial and transport planning and to show suitable implementation procedures. For this purpose, best-practice experiences in German and French regions have been analysed and assessed. Upgraded regional rail lines have been examined in their spatial context with respect to:

- their impacts (eg. the importance of upgraded train stations for quality of the rail service and local traffic demand) and
- planning and implementation processes (such as regional cooperations, planning instruments, stakeholder constellations, funding programs).

This has been related to the aspects

- BAHN (train): revitalisation of the regional train supply (quantitatively and qualitatively),
- VILLE (town): urban development along the rail lines and urban revitalisation of the station precinct,
- “.” STATION: Revitalisation of the stations as places and nodes.

Out of a preliminary examination of 17 best-practice examples, four were selected for deeper investigation: The Bodensee-Oberschwaben-Bahn (BOB) in Baden-Württemberg (Germany), the Voreifelbahn (VB) in North Rhine-Westphalia (Germany), the rail network of the Strasbourg region in Alsace (France) and the rail line Nantes – Saint Nazaire – Le Croisic (MetrOcéane) in Pays de la Loire (France) at the mouth of the river Loire. The region Bodensee-Oberschwaben is located in the south of the state near the Austrian and Swiss borders. The settlement structure is polycentric with the three main centres and travel generators Friedrichshafen (population 57,000), Ravensburg (48,000) and Weingarten (26,000). The Voreifel-Bahn runs from Bonn (population 312,000), the former capital of Germany, to Euskirchen (54,000), the principal town of a county with a predominantly rural and small-town settlement structure, popular with exurban lifestyle and recreational day-trippers. Both Bonn and Euskirchen county record a dynamic population growth (by 9% and 16% respectively between 1989 and 2004). Strasbourg is the dominant centre for the Bas-Rhin (Lower Rhine) region with a metropolitan area population of nearly 500,000. The rail network links Strasbourg with the surrounding countryside, consisting of smaller centres with well-developed viticulture and tourism industries, and rural areas. In Pays de la Loire, the two centres of Nantes (population 550,000) and St. Nazaire (66,000) together make up for 92% of the conurbation's population and generate substantial commuting, business and recreational travel between them.

Sustainability and Modal Shifts

According to its proponents, rail-oriented development can contribute to more sustainable urban settlements. This contribution is manifest in the ability of such development to reduce car use and land consumption (Cervero et al 2004, Newman and Kenworthy 1999, Stead 2001). For example,

according to several studies on travel patterns connected with urban form, there is evidence that higher densities can lead to less car travel (Handy et al. 2005, Schwanen and Mokhtarian 2005, Krizek 2003). It is further argued that the offer of walkable neighbourhoods around public transport stations encourages people to use public transport more. Cervero (1994) found that TOD inhabitants in a US sample were five times more likely to use public transport than inhabitants of conventional suburbs. Even if this could be traced back to effects of self-selection, it is an enormous gain for public transport, and furthermore highlights that a genuine choice of travel mode exists for a substantial number of TOD inhabitants.

However, not all projects which are planned as TOD fulfil the potential and the elements of TOD. “Most often they have conventional single-use development patterns, with conventional parking requirements, so that the development is actually transit-adjacent rather than transit-oriented” (Leccese 2003, p86). The difference lies in the way that many neighbourhoods combine density with appropriate street patterns, access to transit, neighbourhood amenities, and an adequate mix of nearby retail. Locating a mix of uses within walking distance of transit does not necessarily create a place where everyday errands can take place on foot on the way home from the transit stop, or where there is an active street life even during off-peak hours. Shortfalls of transit-adjacent developments are, for example, parking codes which remain unchanged, site designs which place parking in the front, a lack of comfortable sidewalks and safe pedestrian crossings, and building frontages not responsive to a pedestrian scale.

The *Bahn.Ville* developments have nearly all seen increases of public transport patronage, and thus quite likely decreases in the usage of cars. These increases came about through new developments and additional train stations, but also through substantial improvements of service levels, and through the revitalisation and redesign of stations and station precincts.

Additional uptake of land for urban uses in the *Bahn.Ville* case studies has been concentrated around the public transport stations, and there has been a tangible impact on reducing regional settlement growth outside the rail catchments in all four case studies. Typical densities in the rail-oriented developments, however, are not nearly as high as in inner urban areas, reflecting the suburban character of the locations with low-rise, attached, garden-oriented housing. A more serious drawback of the *Bahn.Ville* projects is that few of the new developments are genuinely mixed-use. Despite the limited size of the developments and their general proximity to existing settlements with shops and services, this shortfall may encourage continued reliance on the car for longer-distance shopping trips. Furthermore, the French examples in particular often contain large park-and-ride facilities, which encourage the use of cars to access the station. They also encourage park-and-ride users to drive to larger stations where there is more frequent rail service (both all-stops and express trains), or where they can skip a fare zone and thus travel more cheaply, undermining the viability of the smaller stations (Prêtsch 2004). The study concludes that given the theoretical dominance of short station access trips (both in terms of time and distance), it is important to provide a roughly equal supply of park-and-ride spaces for all stations to discourage such effects (Prêtsch et al. 2005).

The *Bahn.Ville* projects also delivered the insight that the most important element of a revitalisation of a regional rail network is the level of service (frequency and period of operation) and that image and comfort influence to a great extent the acceptance and utilisation of the rail system (Prêtsch et al 2005). This means that the design of the stations is important for the acceptance of the train line, and that it is crucial to integrate the station into the surrounding precinct. For this reason, station plans are often used to facilitate the coordination of modes, traffic and retail functions, which is important because services at stations add value to the “location railway station” and its surroundings. In the design of the station area, it is essential to consider all transport modes and not only emphasise motorised transport. The improvement of pedestrian and bike accessibility to the station is at least as relevant for attracting new passengers as the provision of park-and-ride facilities. The German examples show that a greater focus on non-motorised station access can

reduce private vehicle traffic in the catchment area of the rail lines. These results confirm the findings of Cervero et al (2004) about rail-oriented development in a US context.

In summary, the *Bahn.Ville* projects suggest that essential parameters for rail-oriented development are:

- Spatial visions, concepts and plans on a regional or state level, to be elaborated in more detail at the local level,
- Support programs and pilot funding on a state or regional level as incentives for local government projects,
- Integrated planning at the regional level, and a reasonable distribution of planning authority and key persons.

Collaboration

The implementation of rail-oriented development requires strong collaborations, with respect to both transport planning and land use planning, and above all between the municipalities and the regional partners (Renne 2005). This is even more critical where multiple agencies govern different elements of land development and public transport service delivery. In the case of the *Bahn.Ville* projects, collaboration of stakeholders took shape in institutional relationships between public transport operators and municipalities, as well as within informal boards accompanying the planning and implementation process. The projects show that cooperation on the regional level is of particular importance in order to achieve a synchronicity of upgrades to the rail supply and improved transport and land use integration (Prêtsch et al. 2005).

Instruments to integrate capital investment previously segregated by government or industry sectors range from better coordination in (public) housing construction programs, with public transport accessibility as a criterion, to active land management. This requires an intensive internal collaboration within the administrations that moves clearly beyond the usual level of inter-agency communication. Exemplary and innovative ideas for collaboration can be found particularly in the cases of the Bodensee-Oberschwaben-Bahn (BOB), Strasbourg and the Voreifelbahn.

The BOB was established as a response to successive service cuts on the part of the German Federal Railways (DB) as the previous operator of the line. The concerned municipalities set up a working team with the goal to counter this trend. In 1991, BOB Ltd. was formed to complement the remaining DB regional express service and thus devolve the responsibility for the local rail service to a regional level. In the beginning, the BOB operated one train stopping all stations every 60 minutes, staggered to the DB service. The service was subsequently gradually expanded to 24 daily return trips (every 20 minutes during peak hours and hourly at other times), which is an increase of 70% compared with the supply under DB operation. Because of their financial interest in the performance of the line, the participating communes actively advocate urban development in the stations precincts to consolidate the passenger base (Prêtsch 2002).

In Strasbourg and the Alsace region, the formation of “rail activation committees” (*comités locaux d’animation de ligne*) to instigate and maintain a dialogue between the regional public transport association, operator and train users was critical. These committees were instrumental in researching and delivering on the expectations of the train customers, resulting in a comprehensive upgrade of the train supply. Integrated fares and special offers such as cheap weekend tickets and multirider cards have been introduced, and sleek new trainsets put into service. From 1997 to 2001, daily services on the regional rail network increased by 40%, leading to passenger growth in the order of 30% (Puccio 2003).

For the Voreifelbahn, an informal regional cooperation (*Regionaler Arbeitskreis Entwicklung, Planung und Verkehr Bonn/Rhein-Sieg/Ahrweiler, rak*) was established. *rak* was founded following the shift of the federal parliament and seat of government from Bonn to Berlin, and the expected effects on the regional housing market (Stein 1996). An important goal of *rak* is the decentralised

concentration of new development around rail stations, in the spirit of the dominant regional development paradigm in Germany, informed by sustainability objectives (Holz-Rau 1997). Concrete quality standards and voluntary commitments for regional agreements have been defined. The jointly developed goals, the implementation of pilot projects and the intercommunal dialogue contributed substantially to integrated land use and transport development in the region which would not have been accomplished if each municipality had acted for itself. For example, 80% of new urban developments in the region are now within 800 metres of a railway station or within 400 metres of a bus stop with regular service. The creation of dialogue and the intensive level of exchange of information between the municipalities played an important role in the successful collaboration. Especially smaller communities were able to benefit from this (Prètsch et al 2005).

The interplay of institutional and informal collaboration in the *Bahn.Ville* projects was shown to be successfully activated and supported by various “soft factors” like intensive exchange of information and a positive negotiation climate. Personal commitment as well as a long-term, confidence-building collaboration between stakeholders is of great importance for the implementation of rail-oriented development. Political leadership is also vital, and it is highly conducive to positive outcomes if key persons in critical roles are dedicated and drive the project. A division of tasks into manageable parts, and sufficient flexibility (open-ended planning processes) with regard to new developments are also of advantage.

The regional level seems to be the most effective level for the implementation of rail-oriented development. Coordination of regional development and a departure from sector-based thinking is important; for example intercommunal and interdisciplinary boards can be created to define joint visions and overcome parochial politics.

Local governments have an important, often underestimated role in the implementation of rail-oriented developments. The programs and projects that are initiated on a regional or state level require municipal commitment for their implementation. The initiative for revitalising the railway stations, their precincts and their connection with the settlement structure is simultaneously a challenge and an opportunity for local governments.

However, it was found that the basic parameters, such as specifications in planning documents codified to the requirements of rail-oriented developments, have to be formulated on the national and state level, and the necessary funding and political commitment for demonstration and ongoing projects must be reliable.

CONCLUSIONS

The experiences from the Transit Cities and *Bahn.Ville* programs point to two fundamental policy disconnections, which it is in the interest of successful outcomes in rail-oriented development to overcome. Fortunately, each program holds some clues in this regard that could provide an impetus for the other program to address its shortfalls.

The central disconnect in the Transit Cities program is the insufficient integration of land use planning in the project areas with the infrastructure and service priorities for public transport in metropolitan Melbourne. While effective partnerships exist between the Transit Cities team at the Department for Sustainability and Environment (DSE) and the relevant local councils in the area of land use planning, a range of institutional barriers prevent a targeted coordination between these bodies and those responsible for public transport in Melbourne.

On the one hand, this is due to a departmental split, taking effect only in 2003, that removed the State land use planning authority from the Department of Infrastructure (DOI), which continues to hold responsibility for public transport but has no clearly defined role in the Transit Cities project. This is contrary to the situation in Western Australia, where transport and land use planning were united in a uniform Department of Planning and Infrastructure (DPI) in 2001. In Perth, some large-scale rail-oriented development is being implemented successfully by public-private redevelopment

authorities (such as in Subiaco and Midland), and direct collaborations between local councils and the public transport regulator have led to essential infrastructure measures, for example through the relocation of a train station into the revamped town centre of suburban Gosnells (Newman 2005). In a move reminiscent of Western Australian practice, the State Government of Victoria recently announced that its land development agency, VicUrban, will take over planning authority in the Transit City of Dandenong (Millar 2005).

On the other hand, effective partnerships between land use authorities and public transport providers are also hampered by the consequences of the franchising of Melbourne's train and tram systems to private operators in 1999. State Government effectively relinquished the extent of regulation authority over public transport investment and service that is common not only in continental European cities, but also in Adelaide, Brisbane and Perth, where service planning is conducted by TransPerth, a public regulator within the DPI (Mees 2005). This situation does not per se preclude constructive partnerships between land use planning authorities and private-sector rail operators. It does, however, appear to add further complication to the effort and leaves State Government in the unfortunate position to be taken to task for the funding of Transit Cities-related service improvements, without possessing sufficient authority to specify and order them independently of the operators' commercial interests.

The *Bahn.Ville* projects point to a range of solutions to these dilemmas. In the case of the Bodensee-Oberschwaben-Bahn (BOB) the personal commitment of the transport planner of the regional association who maintained excellent contacts with all municipalities involved, proved instrumental. The case also shows that urban development around train stations can be boosted if the councils themselves have an interest in increasing patronage through co-ownership of the rail operation. The success of the BOB sparked a debate across the region about the value of public transport to local governments, strengthened regional cooperation and management, and informed further rail regionalisation projects throughout southern Baden-Württemberg.

The revaluation of the Voreifelbahn is a result of an informal regional cooperation which was formed to tackle structural change and to orientate regional growth along sustainability goals. The informal regional cooperation (*rak*), launched as a voluntary, consensus-based round table, conducted a housing market study to establish potential demand for the concentration of new urban development around train stations, which in turn was seen as a suitable tool for increasing rail patronage and thus curbing private vehicle travel. This experience highlights the importance of coordination at a regional level, even outside and complementary to established planning institutions, to organise and implement urban development in patterns that are reasonable and acceptable for the whole region.

The Strasbourg project demonstrates that the participation of passengers and the cooperation of stakeholders in public transport can lead to a better rail service as well as increased ridership. The commitment of the regional authority was instrumental to bring the stakeholders together and to initiate the first improvements. In the absence of a state government tier in France, this experience stresses the value of coordination and commitment at the regional level to initiate and coordinate projects of transport and land use integration.

The MétroOcéane project exemplifies a case where two traditionally rivalling local governments worked together for the first time. The reason for this was, on the one hand, the introduction of the *Loi SRU*, which demands intermunicipal cooperation, but on the other hand the common interest of the two cities in reducing motorised traffic, offering attractive alternatives, supporting the regional economy and developing tourism.

Thus transport and land use coordination in the German and French examples flourished through the establishment of formal and informal agencies for the purpose of sharing expertise and resources not available to each project partner in their own right. There is also a strong theme in the establishment of communities of interest, often with the help of institutional reform, such as new legislation mandating or encouraging regionalisation of public transport, or the devolution of

responsibilities for regional development to groups of local councils along the subsidiarity principle.

However, *Bahn.Ville* also made it clear that the urban form and functional diversity of the new settlements created around rail stations does not always meet the high standards of transit-oriented development elsewhere. This is partly due to urban design deficits, partly to the small scale of the new developments, and partly to a weak tradition in the regional development industry to deliver functionally integrated products. In this context, the precinct planning approach taken in the Transit City example of Frankston (and now in Dandenong), making use of enquiry-by-design workshops that are organised to engage the local community and encourage residents as well as professionals to think beyond conventional notions of redevelopment, appear to indicate a way forward. While it is true that the scale of housing growth in most of Germany and France is nowhere near as high as in metropolitan Melbourne, the consolidation even of slow-growing populations in public transport-friendly settlement patterns remains an important sustainability objective. It is further true that some regions in Europe, such as the Dutch Randstad, south-east England or the Western Mediterranean coastline do experience substantially higher growth rates than the *Bahn.Ville* examples and thus potentially display similar dynamism in the development industry as what is anticipated in Victoria's Transit Cities.

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