Transforming spatial governance

High-speed rail planning and the regional integration of Hume

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Doctor of Philosophy
April 2024

Faculty of Architecture, Building and Planning
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Thesis submitted in total fulfillment of the requirements for
the degree of Doctor of Philosophy.

For Lucas

Abstract

Australian governments and private consortiums have been planning high-speed rail since the 1980s by studying different corridor options and railway technologies to connect major cities along the eastern seaboard. Despite the introduction of government policies to promote land use and transport integration, recent proposals for intercity high-speed rail have obtained weak connectivity between station infrastructure and regional settlement systems. In Australia, justification for weak connectivity is typically based on a combination of transport planning and urban design considerations that are said to hinder integration between regional stations and established urban areas. However, recent studies of high-speed rail development overseas suggest that the problem instead has its origins in national systems of multilevel governance.

This research takes the Hume Region in northeast Victoria as an illuminative case study to understand the influence of high-speed rail planning on regional governance in Australia between 2008 and 2017. A spatial governance perspective is used to explore the in-between spaces of state planning that embed infrastructure projects into regions to promote their economic and political integration. The conceptual framework draws on Raco's (2005) understanding of regional integration as a political process that reconfigures power relations and gives rise to hybrid institutional forms. A mix of research methods, including geographic analyses of three high-speed rail proposals and qualitative analyses of interviews with national and regional actors (n=64), government policies and media reports, showed that high-speed rail planning is connected to processes of regional integration by its potential to restructure settlement systems and embed new institutional and political structures into non-metropolitan regions.

The research found that regional institutions in Hume coevolved with the institutional structures that governed high-speed rail planning in Australia. This convergence between national and regional-level structures can be explained by the top-down nature of infrastructure planning and regional policy. However, the analysis identified ground-up moments of institutional reform that indicate greater reflexivity between territorial levels than is typically acknowledged in the domestic planning literature. In the case of high-speed rail planning in Hume, institutional reforms were instigated by localised struggles against the partisan structures that govern public investment in critical infrastructure. It remains to be seen if newly empowered regional actors highlighted in the research can secure broad-based outcomes from high-speed rail development because they lack the planning authority and fiscal resources needed to implement integrated planning solutions.

In Australia, the forms of regional integration engendered by high-speed rail planning have limited potential to promote sustainable development outcomes in non-metropolitan regions because the strategic goals of the state and powerful non-state actors are privileged over the planning goals and development needs of regional communities. Consequently, high-speed rail planning is transforming spatial governance by reproducing national corporatist structures in non-metropolitan regions. These structures, however, do not engender a regionally integrated approach to spatial planning.

Keywords: high-speed rail; regional Australia; regional integration; spatial governance.

Declaration

This is to certify that:

i) the thesis comprises only my original work towards the degree of the Doctor of Philosophy except where indicated,

ii) due acknowledgement has been made in the text to all other material used,

iii) the thesis is fewer than 100,000 words in length, exclusive of tables, maps, bibliographies and appendices.

Signed:

Date: 9 April 2024

Funding

This PhD research is funded by an Australian Government Research Training Program Scholarship (formerly the Australian Postgraduate Award) administered by The University of Melbourne.

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Acknowledgements

Profound thanks to Professor Brendan Gleeson and Dr John Stone, whose skilful supervision and mentorship made the PhD journey rewarding. Directions explored in the research would not have been possible without their insights, patience and support.

Professor Alan March and Associate Professor Crystal Legacy played decisive roles by opening the research to new perspectives at key moments. Special thanks to Crystal and to Professor Peter Newton for research training opportunities that enriched the work.

The seeds of this research were planted during a master's thesis supervised by Professor Hashim Sarkis and Professor Peter G. Rowe, who encouraged me to explore geographic and historical perspectives through my urban design and architecture work.

Professor Neil Brenner and Professor Rahul Mehrotra imparted valuable knowledge and conceptual tools that helped me to branch out from these disciplines and grasp the social and spatial complexity of large infrastructure.

The comradery and curiosity of 5th Thesis collaborators Juan Cristaldo, Oscar Malaspina and Daia Stutz supplied fertile ground for the research ideas to grow. Our collective inquiries into large infrastructure shaped the work in fundamental ways.

Sincere thanks to all sixty-four research participants who generously gave their time and knowledge so that I may begin to understand the case from different perspectives. I am also indebted to the two anonymous examiners. Your constructive comments sharpened the focus of the work and will give direction to future research.

Holly and Todd Tramba and Claire Tramba and Miguel Sansalone gave tremendous moral and material support throughout. I look forward to spending more time with you and with Matilde now that the thesis is done.

Gratitude to Karen Whitten, my mother, and Alan and Deb Whitten, my father and stepmother, for their direct and indirect support. Love to Marj Whitten, my dear grandmother, for aiding my academic endeavours.

Finally, this research would not be possible without the love and support of Alison Tramba. Your kindness, patience and advice enabled me to grow on the PhD journey.

Thank you.

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List of abbreviations

ABS	Australian Bureau of Statistics
AC	Companion of the Order of Australia
ACT	Australian Capital Territory
ADB	Australian Dictionary of Biography
AEC	Australian Electoral Commission
ALGA	Australian Local Government Association
ALP	Australian Labor Party

AM	Member of the Order of Australia
AO	Officer of the Order of Australia
ARA	Australasian Railway Association
ARTC	Australian Rail Track Corporation
AURIN	Australian Urban Research Infrastructure Network
AWDC	Albury-Wodonga Development Corporation
BCA	Business Council of Australia
BRAG	Border Rail Action Group
CBC	Canberra Business Council
CBD	Central Business District
CLARA	Consolidated Land and Rail Australia
CRC	Collaborative Research Centre
DELWP	Department of Environment, Land, Water and Planning (Victoria)
DoIT	Department of Infrastructure and Transport (Commonwealth)
DPMC	Department of Prime Minister and Cabinet (Commonwealth)
DTF	Department of Treasury and Finance (Victoria)
EC	European Commission
ECHSR	East Coast High Speed Rail
EU	European Union
GFC	Global financial crisis
GIS	Geographic Information System
IPA	Infrastructure Partnerships Australia
HPRDO	Hume Province Regional Development Organisation
HSR	High-speed rail
HSRA	High Speed Rail Authority
HSRDA	High Speed Rail Development Authority
Hume RDA	Hume Regional Development Australia
Hume RMF	Hume Regional Management Forum
LGA	Local government area
MARL	Melbourne Airport Rail Link
MCU	Major Cities Unit
MLA	Member of the Legislative Assembly (Victoria)
MLP	Market-led proposal
MoU	Memorandum of Understanding

MP	Member of Parliament
NLTN	National Land Transport Network
NSW	New South Wales
PPP	Public-private partnership
QC	Queen's Council
RCV	Regional Cities Victoria
RDA	Regional Development Australia
RDV	Regional Development Victoria
RFI	Rail Futures Institute
RFR	Regional Fast Rail
RIDF	Regional Infrastructure Development Fund (Victoria)
RMF	Regional Management Forum
RNDP	Regional Network Development Plan
RRR	Regional Rail Revival
UIC	*Union Internationale des Chemins de fer* (International Union of Railways)
UK	United Kingdom
UN	United Nations
UNFPA	United Nations Population Fund (formerly United Nations Fund for Population Activities)
USA	United States of America
TEN-T	Trans-European Networks – Transport
TGV	*Train à Grande Vitesse* (High-speed train)
TIF	Tax increment financing
V4I	Voices for Indi
VACL	Victorian Aboriginal Corporation for Languages
VAGO	Victorian Auditor-General's Office
VEC	Victorian Electoral Commission
VFT	Very Fast Train
VHST	Very High-speed Train
VWT	Victorian Women's Trust

Chapter 1. Investigating high-speed rail planning in Australia

Australian governments and private consortiums started planning for a high-speed rail network in the 1980s by studying different corridor alignments and technology options to connect major cities along the eastern seaboard (see James and James 1997). Planning activity ebbed and flowed in subsequent decades but failed to progress past the feasibility stage because the Commonwealth government was reluctant to subsidise the cost of network development and operations (Black 1989a, b, Paris 1992, Thornton 2002). Nevertheless, interest in high-speed rail returned in the first decade of the twenty-first century as Brisbane, Melbourne and Sydney experienced rapid population growth, worsening urban congestion and declining housing affordability (see ABC News 2010, Anthony Albanese MP 2010). Community concerns about the long-term sustainability of Australia's cities and regions also drove renewed interest in the technology (see CBC 2008, CRC for Rail Innovation 2010, IPA and AECOM 2010). In overseas contexts, policymakers address these concerns by integrating the station infrastructure into regional settlement systems to promote compact forms of development that are accessible and connected to urban services (Banister and Givoni 2013, Loukaitou-Sideris and Peters 2015, 2017, Martí-Henneberg and Alvarez-Palau 2017). However, this has not been a feature of high-speed rail planning in Australia in recent years. This research investigates the political rationalities and governance practices that produce this outcome.

1.1. Background

The impetus for this research came from the observation that recent high-speed rail proposals in Australia obtained weak connectivity to public transport networks and urban land uses in regional areas. This is despite the introduction of Commonwealth and State government policies to promote land use and transport integration (see Australian Government 2011, Parliament of Victoria 2010) and State and Local government initiatives to promote more sustainable patterns of urban and regional development (see Hume RMF 2010a, 2014). Figure 1 maps the corridor alignment of East Coast High Speed Rail (East Coast HSR), a Commonwealth government proposal for an interstate high-speed rail network connecting the state capital cities of Queensland, New South Wales (NSW) and Victoria to the Australian Capital Territory (ACT). Table 1 provides a high-level assessment of connectivity between the "regional through stations" proposed by network planners and regional settlement systems (AECOM et al. 2013a, 231). The assessment shows that most station sites are weakly connected to settlements along the

proposed corridor because they are situated more than 2.5 km from the nearest urban centre or railway station. The large number of car spaces that are said to be required at each station also indicates weak connectivity to established urban areas.[1] As a review of international literature to be presented in this thesis will show, this approach to high-speed rail planning is unlikely to engender sustainable development outcomes for communities along the corridor because the station sites are disconnected from public transport networks and existing land uses (see Chapter 2).

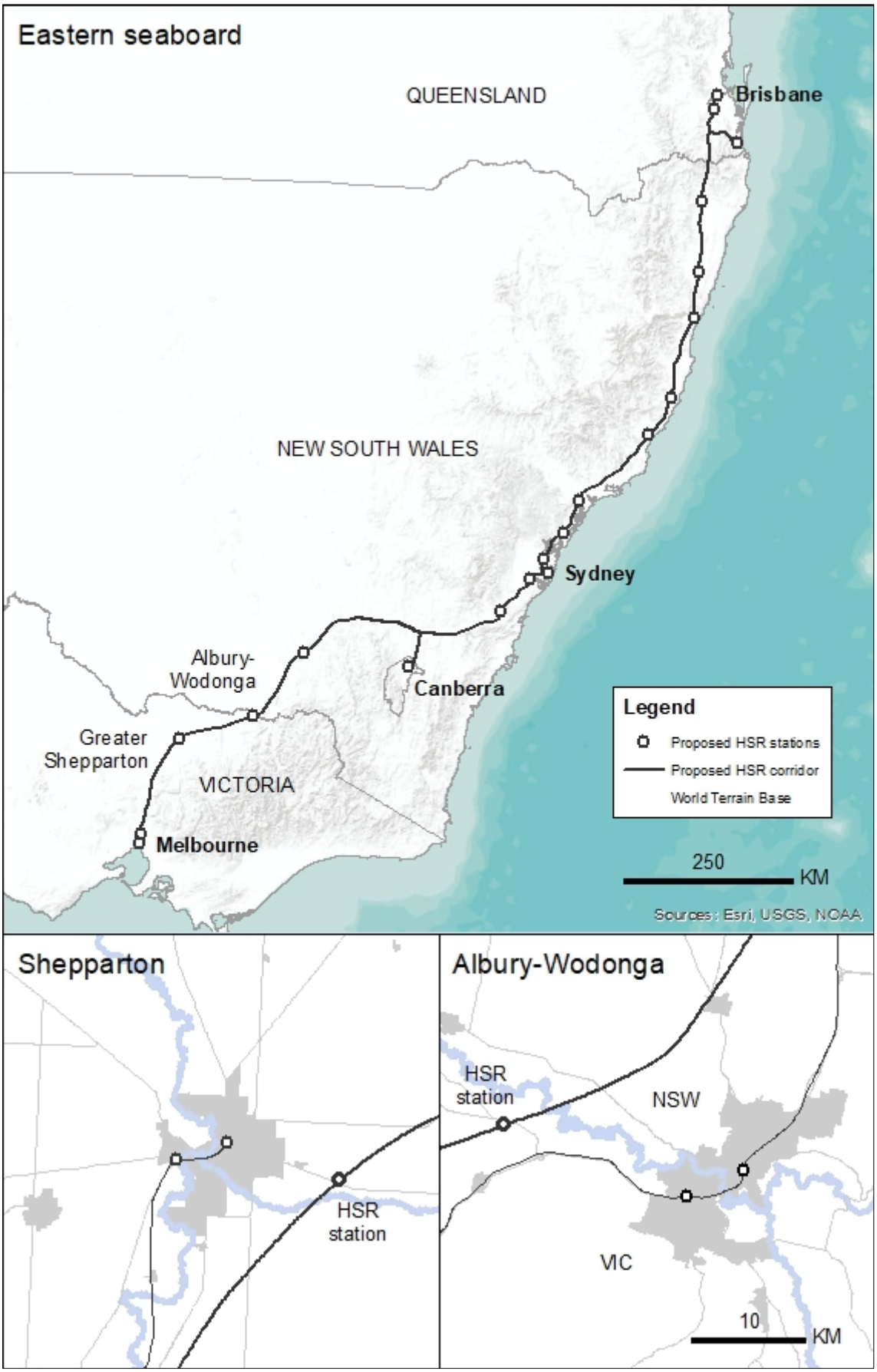
Table 1. East Coast HSR regional station connectivity assessment

Station name	State	Distance to nearest –		Average	Connectivity
		urban centre (a) (km)	railway station (b) (km)	$x = \frac{(a+b)}{2}$ (km)	
Casino	NSW	9.25	10.25	9.75	Weak
Grafton	NSW	13.50	11.50	12.50	Very weak
Coffs Harbour	NSW	12.00	18.50	15.25	Weak
Port Macquarie	NSW	11.50	9.25	10.38	Weak
Taree	NSW	8.75	9.75	9.25	Weak
Newcastle	NSW	8.50	12.50	10.50	Weak
Central Coast	NSW	2.50	2.50	2.50	Moderate
S. Highlands	NSW	7.75	7.75	7.75	Weak
Wagga Wagga	NSW	14.50	13.50	14.00	Very weak
Albury-Wodonga	VIC	21.50	18.50	20.00	Very weak
Shepparton	VIC	10.00	10.00	10.00	Very weak
Connectivity values –	Strong	$x < 1$ km			
	Moderate	$1 \geq x \leq 2.5$ km			
	Weak	$2.5 > x < 10$ km			
	Very weak	$x < 10$ km			

Notes: Station locations based on AECOM et al. (2013b) High Speed Rail Study: Phase 2 Report. Appendix Group 3 - Preferred HSR Alignment. Only stations classified as "regional through stations" in the AECOM et al. (2013a, 231) report are assessed.

Arguments for not integrating high-speed rail stations into established urban areas are typically based on a combination of transport planning and urban design factors. It has been observed that new high-speed rail corridors follow "the line of least resistance" to maximise travel time savings between major cities, minimise the cost of line infrastructure (Vickerman 2015, 158) and mitigate environmental impacts on urban communities (Bellet, Alonso and Gutiérrez 2012). In Australia, proponents and network planners attempt to add weight to these arguments with subjective claims about the mobility preferences and development aspirations of regional communities. For example,

Figure 1. East Coast HSR network structure, 2013



Note: Station locations based on AECOM et al. (2013b) High Speed Rail Study: Phase 2 Report. Appendix Group 3 – Preferred HSR Alignment.

it has been argued that regional communities are "more tolerant of longer distances to access services" (AECOM et al. 2013a, 424) and do not want the "burden of growth" that can accompany high-speed rail development (Cleary 2017). These arguments seem plausible given what is known about the economic and environmental costs of high-speed rail (de Rus 2017, Levinson et al. 1997, Nash 2009) and the challenges of providing effective public transport services to regional communities (Nutley 2003, Petersen 2016, Stanley et al. 2019). However, it is also plausible that such arguments are used to discount exploration of better-connected proposals.

Recent case studies of high-speed rail development in Europe and the United Kingdom (UK) suggest that the problem of weak connectivity between station infrastructure and regional settlement systems is not explained by transport planning and urban design factors alone. A growing body of literature highlights the influence of institutional factors on corridor planning and, more broadly, on social, economic and environmental outcomes from high-speed rail development. In general, studies have found that cities along a corridor are 'bypassed' when the strategic goals of national governments and powerful non-state actors conflict with the planning goals and development needs of regional communities (Bellet et al. 2012, Ureña, Menerault and Garmendia 2009), deficient multilevel institutions hinder the effective participation of regional actors in corridor planning (Feliu 2012) and policies are not in place to support the implementation of integrated planning solutions (Chen and Vickerman 2017, Vickerman 2018). Insights from the international planning literature do not discount the importance of economic and urban design factors in corridor planning; rather, they point towards additional institutional factors that predispose regional communities to positive outcomes from high-speed rail investment.

1.2. Research problem

The influence of institutional factors on high-speed rail planning does not register in policy debates in Australia to the extent that it does in debates in Europe and the UK. Studies by Australian academics, public policy experts and industry professionals typically explore technical questions about the transport planning, regional economic, housing market and environmental impacts of high-speed rail (see Appendix 1). Nevertheless, a small number of studies have explored institutional factors—in both direct and indirect ways—that could influence planning outcomes. These include:

- Post-mortems of failed high-speed rail proposals that highlight tensions between different State governments over the sequencing of network development (Black 1989a, b) and between governments and private consortiums over project funding and finance (Chessell 1990, Paris 1992, Budd 1996),
- A handful of professional studies (Arup and TMG International 2001, AECOM et al. 2013a) and critical appraisals of project governance (Thornton 2002, Charles, Ryan and Kivits 2012) that highlight the agency of dominant national actors in project planning, and
- More recent studies that examine the policy context for high-speed rail development but do not explicitly consider the influence of institutional factors on planning outcomes in non-metropolitan regions (Denham 2017, Terrill, Moran and Crowley 2020).

The relationship between high-speed rail planning and regional governance remains a significant gap in the domestic academic and grey literatures. This gap encompasses analyses of potential cross-border planning issues such as cost sharing between governments, alignment with regional industrial policies and transport and land use integration. Notably, the domestic research record lacks sociospatial perspectives that explore the political economy of high-speed rail by drawing the geographic and institutional dimensions of project governance into the same analytical frame.

Critical perspectives on urbanisation in Australia emphasise the influence of institutional factors on transport planning and, more specifically, on the social and environmental impacts of transport investments. They also highlight the need for an expanded and more inclusive conception of project governance when investigating high-speed rail planning. For example, Legacy, Curtis and Sturup (2012) observe that government planning processes are not adapted to accommodate diverse development goals because local politicians and other community leaders are often marginalised from decision-making processes. They argue that "[without] the development of networks to overcome difficulties with vertical integration between strategic planning and operational planning, cultural change in understanding [land use and transport integration] will tend to silos, regardless of organisational structure" (Legacy et al. 2012, 16). Additionally, Stone (2014) argues that it is difficult for local actors to challenge a dominant policy paradigm when their goal is to promote development trajectories that are more sustainable than present patterns. New directions for transport policy are possible, Stone (2014, 400)

observes, if local actors can obtain greater political influence, but they must first overcome the institutional path dependencies that govern transport planning in Australia:

> there is no simple formula for transport policy reform . . . the essential ingredients are civic action groups, politicians and planners who are willing to participate in robust political contention over many years; who can support each other in the development of an appropriate transit planning agenda and who can constructively engage with the wider community to build or reassert support for their programmes. (Stone 2014, 402)

Additional barriers to integrated planning were erected by major economic and political events in the first decade of the twenty-first century, including the 2007-08 Global Financial Crisis (GFC). Dodson (2009), for example, documents an 'infrastructure turn' in metropolitan spatial planning where major transport projects have been increasingly formulated in isolation of region-wide strategies. Notably, he argues that "[the] eclipse of spatial strategy-making and metropolitan planning [by infrastructure development] may obscure or distract attention from more effective institutional, governance means of achieving improved urban outcomes" (Dodson 2009, 120). For O'Neill (2010), this phenomenon is linked to financialisation of the global economy and to novel forms of infrastructure procurement that entrench the influence of business and industry groups in state planning. He observes that "private sector infrastructure projects are commonly propelled by the opportunities for private gain that come from the ways in which infrastructure can steer urban expansion into new areas or mine existing areas for private gain" (O'Neill 2010, 9). Gleeson (2017), concurring with O'Neill, argues that corporatisation is the defining feature of the 'metropolitan condition' in Australia—the inevitable conclusion to decades of deregulation and the privatisation of state-owned infrastructure assets. He predicts:

> As private ambitions strengthen and government capacities weaken further . . . the emergence of a corporate state seems inevitable and may be hastened by step changes in urban disorder; for example, terrorist actions and climate induced shocks. (Gleeson 2017, 209)

If high-speed rail development reflects the "distinct political and decentralisation frameworks" of the host nation-state, as Ureña, Menerault, et al. (2009, 266) contend, then the prospects of obtaining sustainable development outcomes in regional Australia

do not appear to be strong. It has been observed that urban governance in Australia is not only beset by "planning deficits" such as a lack of strategic foresight and effective mechanisms to execute spatial policies, but also by "democratic deficits" including compromised governance structures and disenfranchised local communities (Gleeson, Dodson and Spiller 2012, 118; 122). Evidence of these deficits can be found in recent episodes of high-speed rail planning where, as this research will show, project governance structures have been insufficiently devolved to promote land use and transport integration in non-metropolitan regions. Arguably, as Gleeson (2017, 208) observes, this planning issue stems from "a fusing of private ambition and resources with government power; viz., corporatism, meaning – in short – a new corporate state born of urban necessity and with unprecedented authority to address disorders."

In Australia, where State and Territory governments are responsible for urban and regional policy, the deficits identified by Gleeson et al. (2012) draw attention to the efficacy of multilevel governance structures. The role of the Commonwealth in transport planning, although expanded in recent decades, is constrained by the planning powers of State and Territory governments. Nevertheless, major programs of Commonwealth infrastructure investment can influence the strategic goals and policy priorities of State and Territory governments. Local governments, on the other hand, as "creatures" of State and Territory government legislation, lack political power because they can be restructured or dissolved "on the whim" of policymakers (Dollery and Marshall 1997, ix). Due to this power imbalance, the general role of local councillors and council officers is to implement the policies and plans conceived by higher government levels. Adding to this complex and unequal set of multilevel structures, major transport projects in Australia increasingly involve some form of partnership between one or more government levels and the private sector. Typically, these arrangements are not equal partnerships because the local actors rarely occupy positions of power or influence.

This research investigates how local actors work within multilevel structures to influence high-speed rail planning, and how successful they are in doing so. Specifically, it investigates the politics of high-speed rail planning by examining the tensions that exist between actors from different government levels, social sectors and regional geographies. A key contribution of the research is to develop a model of 'regionally integrated' high-speed rail that centres questions of governance in network planning. Table 2 details three 'qualities' of regionally integrated high-speed rail that are derived from a review of the international literature (see Chapter 2). The qualities supply an ideal-typical model that is used to assess the planning merits of different proposals. The model therefore supplies a

normative compass to aid in the search for planning and governance strategies that can promote land use and transport integration in non-metropolitan regions.

Table 2. Qualities of regionally integrated high-speed rail planning

Quality	Description
Spatially connected	High speed rail stations must be integrated into regional settlement systems and be able to promote balanced patterns of spatial growth by targeting accessibility improvements towards existing communities.
Institutionally integrated	High-speed rail planning must respond to inputs from regional actors and be able to promote the development goals of communities by supporting the implementation of local strategic initiatives.
Politically aligned	High-speed rail planning must follow an agreement between governments to implement spatially connected planning solutions by devolving a degree of planning authority and fiscal resources to regional institutions.

Note: Chapter 2 supplies a detailed description of each 'quality' listed.

1.3. Conceptual framework

The immense physical scale of high-speed rail and the geographically uneven nature of its social and spatial effects necessitated the development of a conceptual framework that could relate observations of urban and institutional change at the regional level to economic and political dynamics at the national and global levels. Structuralist accounts of contemporary urbanisation from the economic geography, political economy and urban studies literatures proved indispensable in scoping the relevant theoretical terrain for the research. For example, David Harvey's (1990) understanding of the relationship between new regimes of 'flexible accumulation' and the development of large infrastructure networks framed high-speed rail as an augur of neoliberal urbanisation. Neil Smith's (1984) work on the 'creative destruction of scale' helped to relate Harvey's concepts to shifts in the institutional context for project planning. Finally, Neil Brenner's (2016, 123) rubric of 'hinterland urbanisation' engendered a regional perspective on the research by framing 'non-urban' space—non-metropolitan regions or 'regional areas' in the national context of this research—"as strategically central to the processes of creative destruction that underpin the 'urbanisation of capital' as are the large, dense urban centres that have long monopolised the attention of urbanists."

The conceptual framework drew from the literature on 'spatial governance' to embed these theoretical perspectives into the empirical work. In general terms, spatial

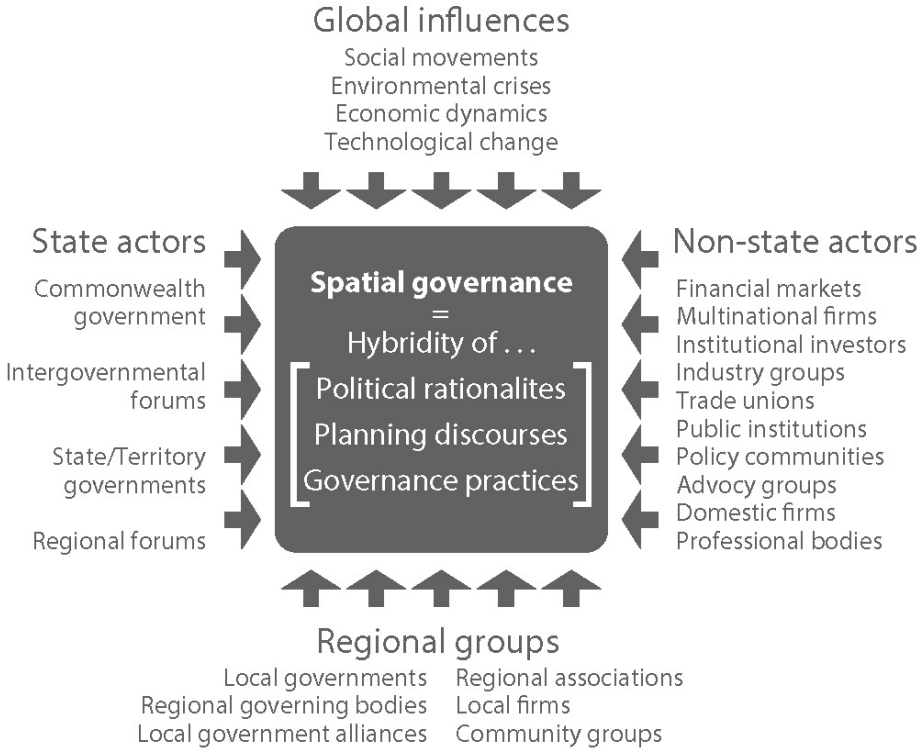
governance encompasses a small but growing body of planning studies that use Marks and Hooghe's (1996, 88) concept of 'multilevel governance' to understand how formal structures of state planning interact with informal networks of regional actors. Marks and Hooghe (2004, 30) developed multilevel governance as an applied research framework to 'resolve' problems associated with the design and implementation of public policy in devolved political contexts. However, it became clear during the early stages of the research that multilevel governance is not well-adapted to the analysis of large infrastructure projects. This is because the notion that competing interests can be resolved by the application of bureaucratic reason is problematic if political conflict is understood to be a precondition for institutional change. The spatial governance literature addresses this shortcoming by focusing on 'contradictions and tensions' in development processes (Raco 2005) and on the 'in-between spaces' of planning that mediate between competing economic and political interests and sustain neoliberalism's hegemony over urban space (Allmendinger 2016, Peck and Tickell 2002a).

The conceptual framework developed for the research also sought to address a tendency by academic planners to overemphasise the failures of one governance model to argue for the merits of another (see Newman 2008) or to overlook contradictions and tensions between different models that might lead to deeper understandings of the development process (see Raco 2005). To these ends, this research enlists Raco's (2005, 2006) 'hybridities' framework to understand how high-speed rail planning emerges from the diverse rationalities and practices that constitute state planning. For Raco (2005, 343), characterisations of urban governance as hierarchical, networked or neoliberal inadequately describe governance 'on-the-ground' because they enlist "top-down discourses and ideologies to explain diverse development practices." The hybridities framework engenders a critical yet grounded perspective on urban governance by acknowledging that neoliberalism's 'utopia of markets' coexists with a progressive project to build social solidarity and protect the environment. In principle, the framework has the potential to foreground emergent rationalities and practices that could supply the foundation for a regionally integrated approach to high-speed rail planning. In Raco's words:

> The implementation of any progressive or alternative [research] agenda needs to be grounded in and through *detailed critical empirical research* that teases out the rationalities and philosophies of state practices and their impacts on a variety of social groups. (Raco 2005, 344, emphasis original)

Figure 2 illustrates how multilevel governance is conceptualised in the spatial governance literature as a dialectic between the 'top-down' structures of state planning and 'ground-up' networks of regional actors. Raco's conceptual innovation is to analyse these structures using a social constructionist lens to understand how the rationalities and practices of state planning influence regional actors. At a fundamental level, the premise of hybridities is that state-significant projects like high-speed rail are 'embedded' into the physical and institutional fabrics of regions by social processes that 'condition' the collective identities, political demands and material expectations of regional actors. Put another way, the formal and informal structures that govern development are transformed by the strategies that central governments use to embed policies and projects into regions. As Raco (2006, 322) observes, large urban projects engender forms of 'place-space congruence' that 'fix' regional identities and institutional structures and 'steer' networks of regional actors towards the economic and political objectives of the state.

Figure 2. Spatial governance: a conceptual framework



Note: Chapter 3 supplies a detailed description of the spatial governance framework.

The hybridities framework can therefore help to understand the relationship between high-speed rail planning and wider political struggles over the institutions of state planning. For Raco (2005, 343), state-significant projects like high-speed rail "need to be embedded in broader processes of socialisation and the meeting of autonomous and contrasting political demands." Per this view, high-speed rail planning is connected to

processes of regional integration that restructure economic and political relations between actors in different government levels, social sectors and regional geographies. Regional integration is typically understood as a top-down process where policy reforms and urban projects are embedded by central governments into regions. However, Raco (2005, 342-43) observes that "actually existing development practices . . . provide opportunities for a range of existing actors, from community groups to local authorities, to influence the implementation and evolution of actually existing policy agendas." Accordingly, there is an opportunity for the research to understand if struggles inherent to the integration process produce new institutional or political capabilities that can supply the foundation for regionally integrated high-speed rail planning in Australia.

Finally, it is important to note that, although an ideal-typical model, regionally integrated high-speed rail is not intended to prefigure a one-size-fits-all approach to land use and transport integration. The three qualities supply a normative compass for the research and, potentially, a framework for policymakers to identify planning and governance strategies that might predispose regional communities to positive development outcomes. The model will foreground strategies that vary by region as national and local planning actors interact through the development process, navigate engineering and environmental constraints and negotiate to achieve their different objectives. Instead of using the model to determine whether a regionally integrated approach to project planning is achieved, the purpose of the model is to identify strategies that move us 'towards' a normative set of planning outcomes.

1.4. Case study and research questions

This research takes the Hume Region in northeast Victoria as an illuminative case study to understand the influence of high-speed rail planning on spatial governance in regional Australia between 2008 and 2017. The study period is bounded by shifts in Commonwealth government policy on high-speed rail planning. It opens in 2008 because this is when private-sector actors began to lobby a newly elected Labor government to build high-speed rail, which led to the commissioning of two major planning studies. The study period closes in 2017 because this is when the Coalition government—elected in 2013—formalised its approach to HSR planning by publishing a *Faster Rail Prospectus* (Australian Government 2017b). Hume became a focus for high-speed rail planning during this period as Australian governments and private consortiums studied different corridor options and railway technologies to connect major cities along the eastern seaboard to each other and to their hinterland regions. Figure 3 maps the network

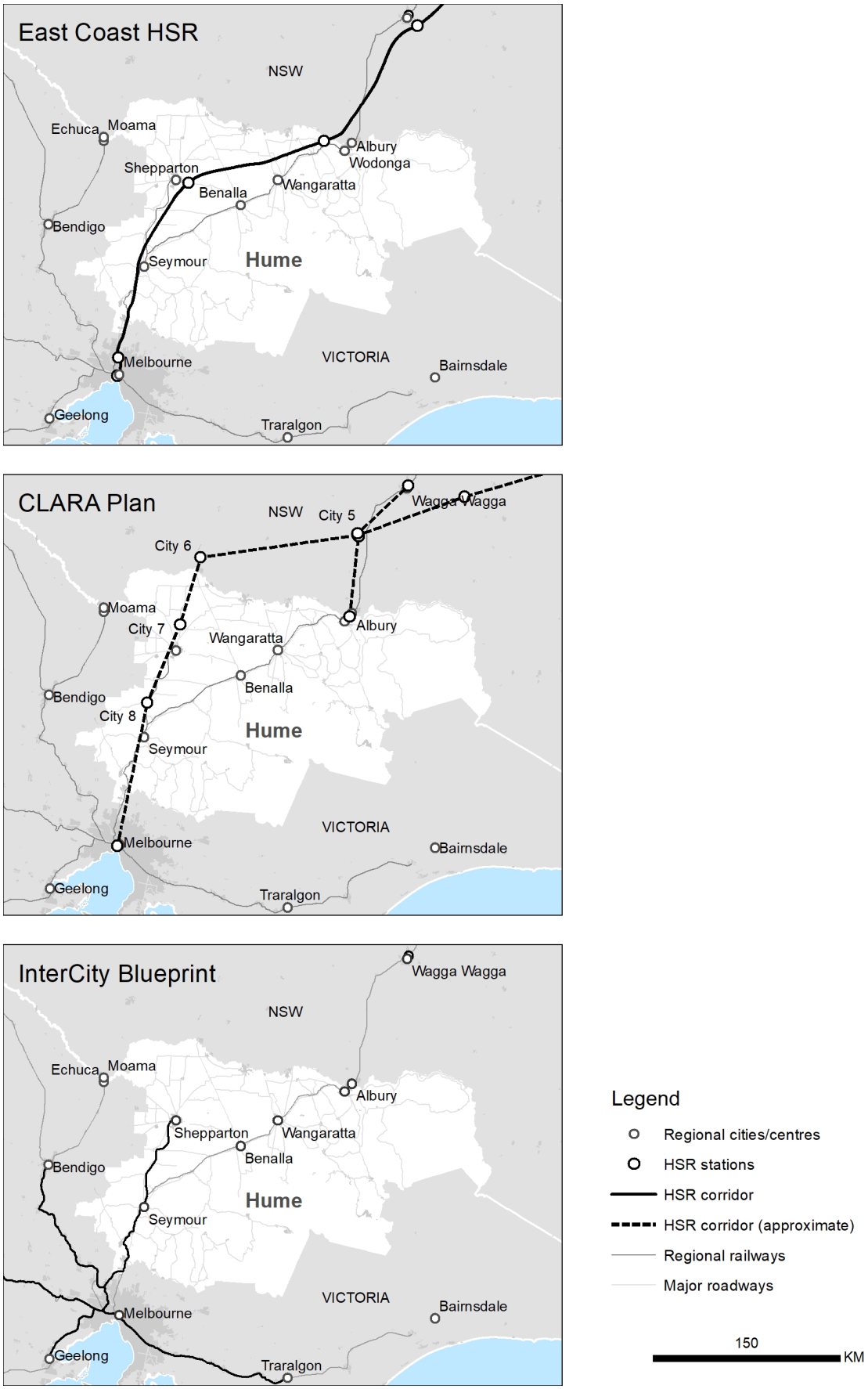
structures of three recent high-speed rail proposals in relation to Hume. The cities of Albury-Wodonga and Greater Shepparton are the focus of this study because they were earmarked by the Commonwealth government as stops along a future high-speed rail network (see AECOM et al. 2013a, 5). The three proposals are:

- East Coast HSR, developed by AECOM and its team of subconsultants under the authority of a centre-left Labor Commonwealth government between 2008 and 2013,
- CLARA Plan, developed by the private consortium Consolidated Land and Rail Australia (CLARA) under the authority of a centre-right Coalition Commonwealth government between 2014 and 2017, and
- InterCity Blueprint, which launched in September 2016, developed by the Rail Futures Institute (RFI), a non-partisan group of planning experts with experience in transport and urban and regional planning.

The three proposals are referred to throughout the research as the 'government-led', 'market-led' and 'hybrid' proposals owing to their respective models of project governance. It is also important to note that East Coast HSR and the CLARA Plan are proposals for an interstate high-speed rail network while the InterCity Blueprint is a proposal for a state-based network centred on Melbourne, Victoria. Each proposal generated considerable public interest in high-speed rail development in Hume (see Akerman 2016, Jones 2013, Lewis 2014, Morgan 2017, Thomson 2018), drew community leaders into debates about project planning (see Birrell 2020, Ryan 2020) and promoted local governments and regional governing bodies to commission strategic work related to the project (see AEC Group 2017, Deloitte Access Economics 2014, John Hearsch Consulting 2017b). Several other factors that are institutional and political in nature made Hume a compelling study area for the research.

First, Hume has been a site for several noteworthy experiments in regional governance, such as the Albury-Wodonga Development Corporation (AWDC) (1972-2014) that was part of the federal Whitlam-era National Growth Centres project (1973-95), and the Hume Province Regional Development Organisation (HPRDO) (1995-96). Since the 1970s, the Commonwealth and State governments of NSW and Victoria have periodically restructured the institutional and geographic parameters of Hume to promote their agendas for industrial policy and infrastructure development. The Hume Regional

Figure 3. High-speed rail proposals in Hume, 2008 to 2017



Note: The geographic analysis (Chapter 6) and institutional analyses (Chapters 7 to 9) supply detailed descriptions of the network structure and mobility characteristics of each proposal.

Management Forum (Hume RMF) and Hume Regional Development Australia (Hume RDA) committee give two more recent examples of institutional experimentation in Hume. The Victorian government established Hume RMF in 2005 to guide strategic planning for the region and to coordinate government service provision across all State agencies and departments. The Commonwealth government established Hume RDA in 2008 to support economic development initiatives by connecting federal agencies and departments to regional business and industry groups. Notably, Hume RMF and Hume RDA have the same administrative boundaries but are constituted by different institutional structures: Hume RMF has a managerialist structure that brings together State and Local government bureaucrats while Hume RDA has an entrepreneurial structure that brings the representatives of business and industry groups together.

The second factor that made Hume a compelling study area for the research involves a set of political conditions that caused regional institutions to be restructured between 2008 and 2017. In contrast to the progressive portrait of regional governance offered by the above description, electors have traditionally supported candidates put forward by the conservative political parties to represent their interests in Australian parliaments (see AEC 2019, VEC 2018). Nevertheless, widespread dissatisfaction with the condition of public infrastructure, including slow, infrequent, and unreliable passenger rail, precipitated a period of political disruption in 2013 and 2014 that realigned democratic power structures in the region. Actors across Hume organised with a purpose to influence the planning and prioritisation of state-significant projects by supporting independent candidates in federal and state elections. Not only did they succeed in disrupting status quo political alignments, but they also secured significant public investment in strategic rail infrastructure projects.

A third and final factor is the relationship between the networks of regional actors and the structures governing past episodes of spatial restructuring in Hume. Hume is a geographically large region compared to other non-metropolitan regions in Victoria because it is structured around the National Land Transport Network (NLTN) instead of around a dominant regional city. The research found this ‘geographic fix’ to be in tension with the geographies of regional actors that have emerged in recent years. The character of actor networks also varied depending upon territorial factors that shape the development of different subregions. Regional actors from Albury-Wodonga, for example, sought to revive legacy institutions such as AWDC by transgressing the state border of NSW and Victoria to work more closely with each other and with the Commonwealth government on strategic initiatives including high-speed rail planning.

In contrast, the networks of actors in Greater Shepparton that interacted with high-speed rail planning were more corporatist in character owing to the prominent role played by non-state actors with interests in the Goulburn Valley's irrigation network.

While reminding us that regions are contingent spaces where the scale and scope of governance are politically contested (Swyngedouw 1997) and socially produced (Marston 2000), these findings suggest that high-speed rail planning could redefine the 'regional' as a geography for policymaking. In Australia, the nomenclature 'regional' denotes a geography that is not 'metropolitan' like a state capital city (e.g., Brisbane, Melbourne and Sydney) but not 'rural' like a small township or farming community. It is a 'non-urban' space in between the metropolis and the hinterland that connects peripheral regions to central ones and facilitates resource flows between them. Accordingly, the nomenclature 'region' denotes a geography for the administration of Commonwealth and State government policies as opposed to a community that exercises a degree of economic and political autonomy. 'Regional cities' are centres for commercial activity and government service provision that, unlike 'provincial cities' in Europe, lack political sovereignty and economic influence over surrounding jurisdictions. Nonetheless, the prospect of high-speed rail development could introduce physical connections and social relationships that transgress current geographic and institutional boundaries and enhance the influence and autonomy of regional actors.

Considering the above, this study will explore the following four research questions (RQs) to understand the influence of high-speed rail planning on spatial governance in regional Australia. The principal research question asks:

RQ1. How is high-speed rail planning in Australia connected to processes of regional integration in Hume?

It is underpinned by three subsidiary research questions that structure the empirical work:

RQ2. To what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume?

RQ3. What political rationalities and planning discourses informed high-speed rail planning in Australia between 2008 and 2017?

RQ4. In this time, how was the governance of high-speed rail planning enacted at the national and regional levels?

The research questions are not only used to study the case of high-speed rail planning in Hume but also to test the conceptual framework developed in the literature review (Chapters 2 and 3). Reflections on the usefulness of Raco's hybridities framework

and, specifically, its ability to relate the geographic and institutional dimensions of the case, are offered in the closing chapter of the study.

1.5. Thesis structure and summary findings

Table 3 outlines the thesis structure and relates the four research questions to each part of the empirical work. The opening chapters detail the practical policy concerns and conceptual foundations of the research. Chapter 2 reviews the relevant academic literature from overseas to understand the kinds of planning challenges that high-speed rail presents, and how these challenges are conceptualised using conventional governance models. The review draws predominantly on case studies of European examples because the political systems and governance structures of European Union (EU) member states resemble those structures found in Australia. Studies of examples from China were not reviewed because the political system differs in fundamental ways to Australia's, while studies of examples from Japan were not reviewed because they give limited consideration to the influence of institutional and political factors on planning outcomes. Chapter 3 reviews the strategic spatial planning and urban studies literatures in and beyond Australia to reconceptualise high-speed rail planning as a form of spatial governance. Again, the review draws heavily on concepts and frameworks developed in Europe because of similarities to the Australian context.

The next two chapters mediate between the conceptual chapters at the beginning of the thesis and the empirical chapters towards the end by describing the methods of and context for the research: Chapter 4 details the research design including the case study approach, data collection methods and techniques of quantitative and qualitative analysis. It also gives an extended justification for adopting a single-case approach to investigate high-speed rail planning in Hume. Chapter 5 then lays the foundations of the empirical work by defining the geographic and institutional parameters of the case. In this chapter, it is argued that Hume is a 'constructed' region whose geographic and institutional parameters are 'fixed' by governments to promote economic development and productivity growth. The four empirical chapters that follow the case description (Chapters 6 to 9) separate the geographic and institutional components of the research before they are recombined and synthesised in the concluding chapter.

The geographic analysis in Chapter 6 uses qualitative and quantitative analytical techniques to address the second research question: To what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume? (RQ2) The purpose of this chapter is to supply a correlate to the institutional an-

Table 3. Thesis structure

Phase	Chapter	Title	Objective/s
Introduction	1	Investigating high-speed rail planning in Australia	Scope the study including the background, research problem and conceptual framework; outline the case method, analytical techniques, research questions and summary findings.
Literature review	2	Regionally integrated high-speed rail	Review the planning literature to understand the governance challenges of high-speed rail; describe the three qualities of regionally integrated high-speed rail planning.
	3	Spatial governance: a conceptual framework	Extend the governance models identified in Chapter 2 using the spatial governance literature; develop a critical conception of regionally integrated high-speed rail to guide the research.
Methods and case context	4	Research design	Detail the data collection methods and techniques of quantitative and qualitative analysis: justify the use of a single case approach to study high-speed rail planning in Hume.
	5	Constructing Hume: a case description	Study the historic, economic and political contexts for high-speed rail planning in Hume; bound the case by exploring the geographic and institutional parameters of Hume.
Empirical research	6	Geographic analysis: a new geographic fix for Hume?	Explore the spatial geographies of the case using qualitative and qualitative planning analyses to address RQ2 – To what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume?
	7	East Coast HSR: mind the regional governance gap	Explore the institutional geographies of recent high-speed rail proposals and formal and informal governance reforms in Hume to address the third and fourth research questions: RQ3 – What political rationalities and planning discourses informed high-speed rail planning in Australia between 2008 and 2017? and RQ4 – In this time, how was the governance of high-speed rail planning enacted at the national and regional levels?
	8	CLARA Plan: the limits of market-led planning	
	9	InterCity: new geographies of governance	
Conclusion	10	Transforming spatial governance	Synthesise findings from the empirical research to address RQ1 – How is high-speed rail planning in Australia connected to processes of regional integration in Hume?

Note: the research design (Chapter 4) gives a detailed overview of the case and empirical research.

alyses in subsequent chapters by illuminating the spatial geographies of high-speed rail planning in Hume. Qualitative analytical techniques are used to discern the influence of different corridor alignments, railway technologies and station location strategies on settlement system development. The results suggest that high-speed rail could transform spatial governance in profound ways by restructuring regional connectivity and spatial accessibility along the southeastern seaboard. Notably, none of the proposals were found to constitute an integrated approach to spatial planning in Hume: East Coast HSR and the CLARA Plan are not spatially connected to regional settlement systems and InterCity, while spatially connected, would yield negligible improvements to spatial accessibility in Hume compared to the stronger improvements experienced in nearby regions.

The institutional analyses in Chapters 7 to 9 use qualitative social scientific techniques to address the third and fourth research questions: what rationalities and discourses informed high-speed rail planning in Australia between 2008 and 2017? (RQ3) and, in that time, how was the governance of high-speed rail planning enacted at the national and regional levels? (RQ4) Data for the analyses was obtained from diverse sources including interviews with planning actors at the national, state and local levels (n=64) and media reports, government policy statements and spatial strategies. These data sources supplied an extended account of the case that was qualitatively rich and well-suited to the application of narrative and thematic analytical techniques.

Using the conceptual framework developed in Chapter 3 to interpret the analysis allowed each high-speed rail proposal to be understood as an interlocking system of spatial and institutional strategies that would restructure the relationship between metropolitan and non-metropolitan regions. The combination of data collection methods and qualitative analytical techniques revealed that high-speed rail planning in Hume was informed by competing political rationalities and governance practices which stem from divergent institutional forms and partisan power structures. In summary, the government-led East Coast HSR proposal was enacted through ‘corporate state’ structures that fused the economic and political objectives of the Commonwealth and State and Territory governments with the commercial objectives of national business and industry groups. The proponents advanced a model of spatial governance called ‘integrated corridor development’ that embedded national corporatist structures into Hume by co-opting the formal institutions of regional planning (see Chapter 7).

By contrast, the market-led CLARA Plan bypassed regional cities and regional institutions. Its planning was guided by an extreme form of commercial rationality that privileged the objectives of domestic venture capitalists and multinational firms over the

economic and political objectives of governments and the planning goals and development needs of regional communities. The proponents cultivated a model of spatial governance called ‘master planned development’ that sought to create a frictionless space for the accumulation of private capital in non-metropolitan regions by restructuring the settlement system around new cities (see Chapter 8). The CLARA Plan was governed by a form of ‘private state’ that, although libertarian in character, subjected the production of urban space to private hegemony.

Finally, the InterCity Blueprint was underpinned by ‘neocorporatist’ structures that spanned social sectors and regional geographies to embed high-speed rail planning into Hume. The proponents advanced a model of spatial governance called the ‘networked city-region’ that supplied a new template for the urbanisation of capital in non-metropolitan regions by restructuring Victoria’s railway network around privately-owned transport nodes. In contrast to East Coast HSR, the national structures that governed InterCity would be replicated at the regional level by emergent corporatist formations in Hume; specifically, in Greater Shepparton (see Chapter 9). The moniker neocorporatist is used to describe the ensemble of hybrid structures that organised around InterCity because these connected corporatist structures at the national and regional levels.

Chapter 10 synthesises findings from the geographic and institutional analyses by addressing the principal research question: how is high-speed rail planning in Australia connected to processes of regional integration in Hume? (RQ1) While it is self-evident that high-speed rail can overcome geographic barriers to regional development, the research found that it is also likely to accelerate processes of uneven spatial development in Hume by restructuring connectivity and accessibility across the region. Additionally, the urban effects of high-speed rail could restructure regional institutions by introducing new regions of development potential that undermine extant territorial structures. These eventualities pose significant planning challenges and development opportunities for regional communities. As this single case study of high-speed rail planning in Hume showed, however, the social effects of the technology precede its implementation: the regional institutions enlisted to embed high-speed rail into Hume emerged in parallel to the institutional structures that governed network planning. A key finding of the research is that high-speed rail planning is laying the foundations for a new phase of spatial restructuring in regional Australia while cultivating the rationalities and practices of neoliberal governance in regional institutions.

High-speed rail planning in Australia is connected to processes of regional integration in Hume by its potential to embed new institutional forms and political

structures into non-metropolitan regions. The research showed that regional institutions in Hume coevolved with the institutional structures that governed high-speed rail planning in Australia between 2008 and 2017. These findings resonate with observations from the case description about the relationship between infrastructure planning and regional governance in Hume (see Chapter 5). This convergence between national and regional-level structures can be explained by the top-down nature of infrastructure planning and regional governance in Australia; however, the analysis found ground-up moments of governance reform that showed greater reflexivity between territorial levels than is typically acknowledged in the domestic planning literature. In the case of high-speed rail planning in Hume, the reforms unfolded from localised struggles against the partisan structures that govern public investment in critical infrastructure, including regional passenger rail.

Nevertheless, it remains to be seen if newly empowered actors identified in the research can secure broad-based social, economic and environmental outcomes from high-speed rail development because these actors lack the planning authority and fiscal resources that are required to implement spatially connected planning strategies. In Australia, the forms of regional integration engendered by high-speed rail planning seem limited in their potential to promote sustainable development in non-metropolitan regions because the economic and political goals of the state and the commercial goals of national corporate actors are privileged over the development goals and needs of regional communities. Consequently, regional governance reforms documented in the research are unlikely to secure sustainable development outcomes for regional communities because they do not meaningfully empower local and regional institutions. High-speed rail planning is transforming spatial governance in regional Australia by reproducing national corporatist structures in non-metropolitan regions. However, these structures do not engender equitable or just forms of regional empowerment because local governments are under-resourced, and emergent actor networks are peripheral to the 'realpolitik' of infrastructure governance.

1.6. Research contributions

The study concludes by reflecting on the usefulness of Raco's hybridities framework to investigating high-speed rail planning in Hume. In sum, hybridities connected high-speed rail planning in Australia to regional governance in Hume by drawing attention to the political rationalities, planning discourses and governance practices that enmeshed both projects. Additionally, the framework cultivated a regional

perspective on the research by opening the analysis to ground-up moments of institutional reform that could provide the foundations for land use and transport integration. Consequently, hybridities proved indispensable in exploring the subtle scalar politics of infrastructure planning and regional governance in Australia; however, structural accounts of urban governance by Brenner, Peck and Theodore (2010) and Allmendinger (2016) were needed to draw the geographic and institutional dimensions of the case into the same analytical frame. These accounts illuminated the relationship between infrastructure development, national industrial policy and the ongoing neoliberalisation of regional institutions. Conversely, the hybridities framework illuminated opportunities to contribute to structuralist accounts of urban governance by studying localised responses to territorially specific forms of interlocal competition.

While the rationalities and practices of top-down governance reform are well documented in the domestic and international planning literature, the findings of the research suggest there is scope to better understand how ground-up moments of reform can influence both the planning of infrastructure projects and the design of regional institutions. Here it was useful to analyse not only the rationalities and practices of infrastructure planning but also the spatial geographies of actor networks privileged by different development discourses and institutional forms. This approach could be refined through future research work. Additionally, the mixed-methods approach developed for this study has obvious applications for research into other kinds of infrastructure projects that span multiple regional geographies. The methods are particularly applicable to contexts like regional Australia, where this research has shown that high-speed rail planning is transforming spatial governance by cultivating new institutional forms and political structures. Nonetheless, the research brings the compatibility of high-speed rail and sustainable development into question because it reveals significant disconnections between the economic and political imperatives of national actors and the transport needs of regional communities.

(7,080 words)

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1. For example, network planners estimate the proposed high-speed rail station at Albury-Wodonga will need 4,200 car spaces and the proposed station at Greater Shepparton will need 2,600 car spaces (AECOM et al. 2013a, Table 5-2).

Chapter 2. Regionally integrated high-speed rail

It seems prosaic to ask 'what is high-speed rail?' when the technology is so prominent in contemporary visions of urban progress. High-speed rail promotes the formation of global city-regions (Blakely and Crommerlin 2016, Hall and Pain 2006), provides a 'backbone' to transport networks in many advanced economies (Banister and Givoni 2013, Banister, Hall and Marshall 2013) and is now synonymous with sustainable mobility and urban resilience (see Greater Cities Commission 2022, International Union of Railways 2018). Nevertheless, it is necessary to explore this fundamental question at the outset of any academic inquiry into high-speed rail because it represents very different things to observers from different disciplines. The influence of the technology on urban and regional development is mediated by a range of geographic, economic and institutional factors. Moreover, academic disciplines that show a strong interest in high-speed rail—engineering, economics, geography, political science, environmental science, public policy and urban planning—are governed by diverse epistemological frameworks and methodological approaches that have at times produced disparate accounts of its development impacts. Declaring one's perspective on high-speed rail thus grounds any contribution to knowledge within this heterogeneous and, oftentimes, contested arena of multidisciplinary inquiry.

The purpose of Chapter 2 is to ground this study in academic debates about the urban and regional effects of high-speed rail. By doing so, it will explore the kinds of planning challenges that high-speed rail presents and how these challenges are conceptualised using different models of governance. The academic literature that frames current debates about the development impacts of high-speed rail is divided along two general lines of inquiry that are both relevant to understanding its urban and regional effects. The first line of inquiry is 'technocratic' in nature because it consists of quantitative analyses that are singular in their disciplinary focus and grounded in instrumental reason. The second line of inquiry is 'sociospatial' in nature because it consists of interdisciplinary studies that use a combination of research methods to understand the influence of geographic, economic and institutional factors on development outcomes. This chapter will develop a model of 'regionally integrated' high-speed rail planning based on a review of these literatures. However, to distil these diverse literatures into a workable set of concepts for the research, it is first necessary to grapple with the fundamental question: what is high-speed rail?

2.1. What is high-speed rail?

It is customary for academic studies of high-speed rail to open with a performance-based definition of the technology. Typically, authors reference criteria developed by the *Union Internationale des Chemins de fer* (International Union of Railways or UIC) that distinguish high-speed rail from 'classical' or 'conventional' railway technologies based on train speed and the quality of line infrastructure (UIC 2018, 4). Most studies then continue hastily to the theoretical and empirical work without reflecting on the geographic or institutional considerations that inform the UIC criteria. This approach can be problematic in the context of urban and regional planning research because interrogating the UIC's performance-based criteria illuminates the economic and political rationalities that govern high-speed rail planning.

Like the UIC (2018, 5), this study defines high-speed rail as trains that operate on dedicated (i.e., purpose-built) tracks at speeds of 250 km/h or greater (see Table 4). This criterion encompasses 'premium' or 'Category 1' railway technologies that supply high-capacity connections between densely populated metropolitan regions. The Shinkansen, developed by Japan National Railways, and the *Train à Grande Vitesse* (TGV) developed by *Société Nationale des Chemins de fer Français* (French National Railways) both give examples of this type of technology. Premium high-speed rail technology can also be found in China and Spain where—like in Japan and France—major cities are typically between 300 km and 600 km apart and the geometry of existing railway corridors does not support the safe operation of high-speed trains. The UIC (2018, 5) makes provision for another category of high-speed rail technology that is relevant to this study: trains travelling on new or upgraded tracks at 200 km/h or greater. These 'Category 2' technologies can be found in Germany, Italy, Sweden and the UK where the distances between major cities are typically shorter and geographical constraints can prohibit the attainment of faster operational speeds. In this category, innovations such as 'tilting-train' technologies developed by British Rail (now National Rail) and Deutsche Bahn can allow high-capacity services to operate along existing intercity corridors.

It is tempting to proceed directly to the theoretical and empirical work after dispensed with the formality of supplying a technical definition of high-speed rail; however, this would overlook crucial geographic and institutional considerations that are salient in any investigation of high-speed rail planning. The categories developed by UIC are not only conditioned by physical and urban geography, but also by a set of economic and political factors that register the national and global dynamics at play in project

planning. For example, development of the TGV and tilting-train technologies by state-owned corporations during the twentieth century served the strategic interests of national governments in Europe by revitalising their domestic railway industries and supporting social and economic policies that promoted regional development (Blum, Gercek and Viegas 1992, 192). High-speed rail can also play a role in geopolitics when countries like China, for example, use it as a form of industrial diplomacy that connects the commercial interests of state-owned corporations to the politburos' policy objectives for the Asia-Pacific region (Chan 2018, Hong 2014). Consequently, any critical conception of high-speed rail planning must register the broader economic and political purposes to which the technology is applied.

A third, and oftentimes overlooked, set of criteria developed by UIC brings the importance of these national and global dynamics into clear view. In addition to operational speed and the quality of line infrastructure, Table 4 details a set of technical requirements for the integration of signalling systems and organisational structures to permit high-speed trains to operate across national borders (UIC 2018, 5). This final set of criteria, which is regulated by the European Commission (EC) and encoded in Directive 96/48/EC *Interoperability of the Trans-European High Speed Rail System*, points towards the principal purpose of high-speed rail development in Europe: to facilitate the project of European economic and political integration (see EC 1996). It follows that Directive 96/48/EC "launches a broad spectrum of policies on opening the market, improving conditions for the use of railway infrastructure, interoperability and technical harmonisation," which encompasses EU requirements for "safety, reliability, human health, environmental protection, technical compatibility and operations" (EUR-Lex 2008). Planning studies that do not register these broader social factors could therefore overlook the role of high-speed rail development in wider processes of economic and political integration (e.g., Denham 2017, Terrill et al. 2020).

The political economy of high-speed rail is laid bare by its central role in the project of European integration. Notably, EU member states adopted Directive 96/48/EC just four years after the 1992 Treaty of Maastricht established the institutional architecture of Europe. High-speed rail development also served the objectives of European national governments in relation to economic competition policy. According to the historian John F. Ross (1994, 192), it was "a crucial component of the [European] Single Market, facilitating the free movement of people and goods while harmonizing disparate national systems and technical standards." Figure 4 maps 'core network corridors' of the Trans-European Transport Network (TEN-T)—the centrepiece of European transport policy—

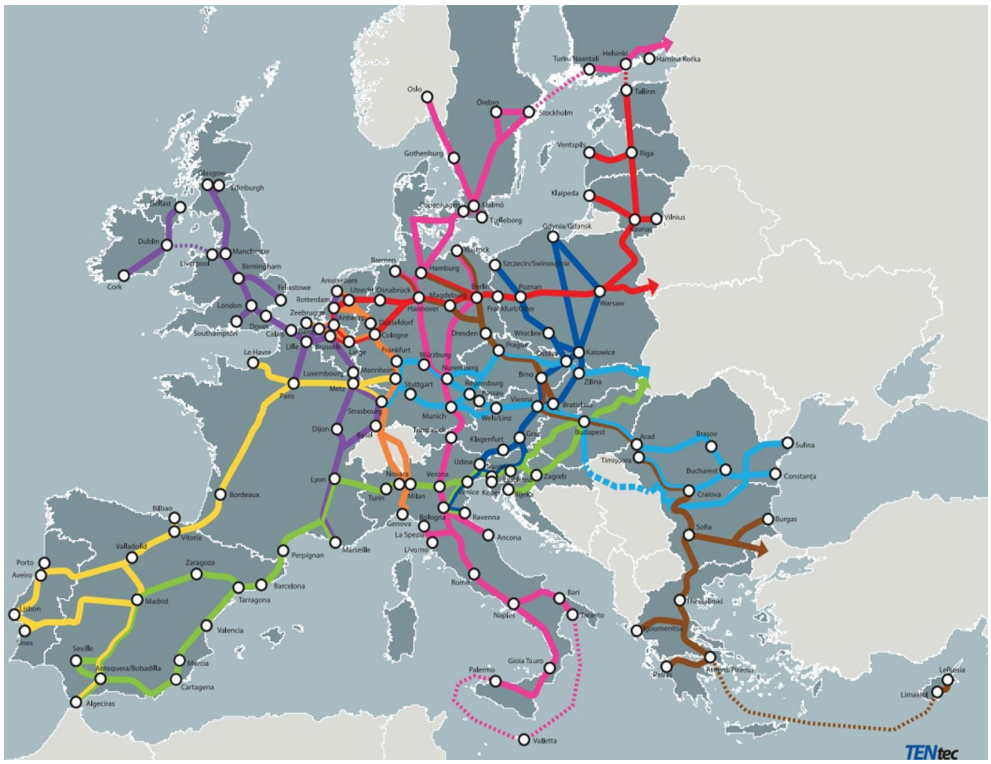
which positioned the development of high-capacity passenger and freight railway corridors as a foremost policy priority (see EC 2020). The expansion of TEN-T to new member states, with high-speed rail as its backbone, was designed explicitly "to strengthen social, economic and territorial cohesion in the EU" (EC 2020). Notably, European policymakers not only used high-speed rail to promote economic and political integration between EU members states, but also to promote the 'balanced development' of central and peripheral regions within them (see EC 1999, 2020, 2001).

Table 4. Technical definitions of high-speed rail

Criteria	Category 1	Category 2
Operational speed	250 km/h or greater	200 km/h or greater *
Track infrastructure	Dedicated corridor / typically new track	Shared corridor / typically renovated track
Other requirements	Track equipment, rolling stock, signalling systems, operations control centres, operational protocols to comply with European Commission (EC) Directive 96/48/EC	

Sources: UIC (2016) General definitions of high-speed rail and UIC (2018, 5) High speed rail: Fast track to sustainable mobility. Note: (*) A railway network can still meet the criteria for Category 2 high-speed rail if the operational speed is below 200 km/h in built up urban areas or long tunnels and bridges.

Figure 4. The Trans-European Transport Network



Source: European Commission (2020) Mobility and Transport Infrastructure: TEN-T Connecting Europe.

For legal scholars like Jacques Putzeys (2004, 113), high-speed rail development in Europe was foremost a political project because the "liberalisation of rail transport" necessitated a shift in the "mentalities" of state planning. To this end, Directive 96/48/EC was one of a "slow but persistent" raft of policy reforms introduced by European governments in the 1990s to open up the railway sector to competition (Preston 2009, 11-12). A law unto themselves, according to Putzeys (2004, 112), Europe's state-owned railway monopolies would be broken up and exposed to competition by separating ownership of the infrastructure from the operation of train services. Contributions to a 1993 conference organised by the transport ministers of EU member states set out the vision for an 'open access' network where railways operate more like airports and roads because "a single carrier would be answerable to his customer from start to finish" (Baumgartner 1993, 34). As globalism and neoliberalism entrenched across Europe, a view had come to prevail among EU policymakers that national railway monopolies were not adapted to a moment in history when "all economic activities are assuming a world dimension" (Baumgartner 1993, 33).

Privatization was part of a deliberate government strategy to overcome what Ross (1994, 197) described as "one of the most intractable obstacles to EU rail harmonization . . . state protection of national rail systems." Accordingly, the EC established a strong role for transnational institutions in railway network planning and for multinational firms in procurement, including debt finance and project delivery (Vickerman 1995, 239). For the geographer Jodi Martí-Henneberg (2017), this set of institutional arrangements resembled those in place during the nineteenth century, when private firms often financed and delivered new railway lines and national governments controlled project planning by supplying financial guarantees. It was during this period, Martí-Henneberg (2017, 162) notes, that Europe's "rail network was made possible by the . . . existence of the material and political conditions required to promote modernisation through collaboration between public and private agents." During the twentieth century, however, geopolitical tensions and military conflicts including World War 1 (1914-18) and World War 2 (1939-45) led to increased state regulation, a breakdown in cross-border connectivity and the nationalisation of many railway networks.

This foray into the historical development of Europe's railways brings the territorial dimension of high-speed rail into view by highlighting its connections to "how human associations—cultures, societies, smaller collectives—and institutions organize themselves in space" (Delaney 2005, 10). High-speed rail restructured the transport geography of an entire continent and gave effect to the economic and political ambitions

of EU member states by increasing regional connectivity (see Spiekermann and Wegener 1994, 2006, 2008). As the late Sir Peter Hall (2009b, 59) observed, high-speed rail spun "seamless webs" between cities and regions and gave Europeans a "magic carpet" that allowed them to travel faster and further to meet their economic needs. The transport policies that promoted these outcomes paralleled the implementation of regional policies that promoted 'territorial cohesion' between existing member states while supporting the integration of new states into the union (Faludi 2004, 1352). High-speed rail thus held a privileged position in EU regional policy for its potential to overcome geographic barriers to economic and political integration and to promote the development of peripheral regions (see EC 1999, 2020, 2001).

When exploring the question 'what is high-speed rail?' it is impossible to overlook its relationship to processes of regional integration and the deregulation of national transport networks. The economic and political functions of banal forms of technocratic governance, like Directive 96/48/EC, supply a salient example of this. The influential role of transnational institutions like UIC supplies another example that is less obvious. The "original principal task" of UIC when it formed in 1922 was "to harmonise and improve conditions for railway constructions and operations" in Europe; however, the organisation has expanded its mission in recent decades to include "[developing] the overall coherence of the rail system at world level" (UIC 2020, 1). When globalisation and formation of the EU provided the "material and political conditions" for high-speed rail development in Europe (Martí-Henneberg 2017, 162), UIC was at the forefront of moulding the "mentalities" of EU member states (Putzeys 2004, 113) by publishing advocacy reports in the 1990s on such topics as *Rail Without Frontiers* (UIC 1991a) and *Transformation of the International Railway System* (UIC 1991b). These publications are connected to UIC's recent advocacy work by development discourses that relate visions of social and technological progress and environmental sustainability to the neoliberal tenets of economic competition and growth (see UIC 2011, UIC 2018, 2019). Here, we begin to find evidence of a normative project that is comingled with neoliberalism's utopia of markets and enabled and sustained by state power (see Pomykała 2018, 7-8).

Finally, with the political dimensions of high-speed rail development foremost in mind, it is important to register the technology's role in 'nation building' processes. Nation building, while analogous to regional integration, is distinguished by its emphasis on the political integration of diverse communities across various social, cultural and geographic divides (Wimmer 2018, 2). Like the example of the EU, a region-building project, nation building is "[the] process by which nationalist forces, including the state,

political parties, and elites attempt to construct a unified national identity" (Castree, Kitchin and Rogers 2013). In Australia, the term is synonymous with "visionary" infrastructure projects like the Sydney Harbour Bridge and Snowy Mountains Hydroelectric Scheme, "whose scale, audacity and symbolism transcended mere function" (McLean and McMillan 2009, 9). Nation building is more than "bricks and mortar" to the extent that it includes the establishment of national institutions and state-owned corporations (McLean and McMillan 2009, 9); however, its strong association with large infrastructure development in Australia is notable given the context and objectives of this study. Seemingly, the construction of large projects like high-speed rail supplies a crucial mechanism through which political cohesion and national identity can be forged (see Evans 2008, Wanna 2008).

2.2. The transport task of intercity high-speed rail

Contentions surrounding the economic and environmental impacts of high-speed rail animate current academic debates about its urban and regional effects. Technocratic perspectives, on the one hand, focus on the 'transport task' of passenger rail to foreground economic considerations in the planning and prioritisation of individual projects and the design of government policies to address regional disadvantage. In general terms, the transport task of high-speed rail is to relieve congested intercity transport corridors by increasing their carrying capacity (Albalate and Bel 2012a, 158, de Rus and Nombela 2007). Using intercity passenger rail as an example, high-speed trains increase passenger throughput by allowing much faster train speeds and more frequent services between cities. Governments typically consider high-speed rail as a policy option when increased economic interactions between two or more major cities cause a transport corridor to become heavily congested (Nash 1991, de Rus and Nash 2007). The decision to build a project might also be influenced by the expectation that improving transport connectivity between major cities will 'induce' travel demand (Doomernik 2015, 136).

Accordingly, the development impacts of high-speed rail exhibit a strong geographic bias. Network planners optimise for connectivity between densely populated metropolitan regions because these settlement types provide the greatest potential for patronage demand and revenue generation (Ureña 2012, 242). Consequently, the alignment of high-speed rail corridors typically follow a "line of least resistance" to reduce travel times for intercity passengers and to minimise the capital cost of line infrastructure (Vickerman 2015, 158). This planning strategy has been referred to in pejorative terms as the "*avion sur rails*" (plane on rails) approach to network planning

because high-speed rail stations servicing intermediate regions are treated like airport terminals instead of like railway stations in a conventional passenger network (Plassard 1991, 1992 quoted in Ureña, Menerault, et al. 2009, 269). The 'plane on rails' approach to network planning can promote efficient transport outcomes but it can also exacerbate regional inequalities by channelling the social and economic benefits of infrastructure investment into densely populated metropolitan regions (see Levinson 2012, 288)

A socioeconomic bias is also at play because high-speed rail typically serves the upper-echelons of travel markets, including business and leisure travellers who exhibit a strong 'willingness-to-pay' for travel-time savings (de Rus et al. 2009, 77, Román, Espino and Martín 2007, 284). Cornelius Nuworsoo (2017, 300) contends the geographic and socioeconomic biases built into high-speed rail planning "[pose] a serious equity problem because HSR will mainly serve urban elites that travel long distances frequently, rather than average citizens who only occasionally take long-distance trips." Ethical questions like these are amplified if the costs of network development are disproportionately borne by communities in non-metropolitan regions. For example, communities that live near a high-speed rail corridor may experience significant environmental impacts but receive little or no benefit from the investment if they cannot easily access a station (Vickerman 1997) or if services to the region are infrequent compared to other regions (Chen et al. 2019, Chen and Vickerman 2020). Furthermore, communities that live in regions entirely unserved by high-speed rail may contribute to the project as taxpayers but receive little or no social or economic benefit from the investment (Martin 1997).

The distributional effects of high-speed rail are perhaps the most contested area of current academic and public policy debate because of the high cost of investment and questions about the economic feasibility of many projects (see Albalate and Bel 2012b, Martin 1997, Terrill 2020, c.f. Blum et al. 1992, Blum, Haynes and Karlsson 1997, Denham and Dodson 2019, SGS Economics & Planning 2020). The urban and regional effects of high-speed rail have received special attention in recent years as scholars seek to understand the extent to which it concentrates or disperses economic activity (Chen and Hall 2013, Chen and Vickerman 2017, Denham 2018, Vickerman 2018). Technocratic perspectives on this question tend to highlight the experience of high-speed rail development in Asia and Europe. The Tokaido line in Japan and TGV Paris Sud-Est line in France provide examples of how high-speed rail can promote the concentration of economic activity in densely populated urban regions, seemingly at the expense of sparsely populated regions. The stated goals of both national programs were to both increase the capacity of congested intercity transport corridors and to promote the

economic development of peripheral regions (Albalate and Bel 2012b, 338-93), but case studies have consistently found that high-speed rail is more effective at achieving the former objective than the latter (Givoni 2007, de Rus 2008, de Rus et al. 2009).

The Tokaido and Paris Sud-Est lines are often cited as commercially successful models of high-speed rail development by a cohort of academics who view the utility and purpose of transport investments through a technocratic lens. It is a "widely recognized fact," according to Albalate and Bel (2012a, xii), that Tokaido and Paris Sud-Est are the only two projects in the world to fully recover their construction and operational costs through revenue generation. Adhering strictly to analytical tools such as cost-benefit analysis, transport planners have developed a set of cut-and-dry economic parameters to assess the merits of high-speed rail projects. Parameters established by de Rus and Nombela (2007, 3) based on "real construction, maintenance, and rolling stock costs of the European HSR lines in operation, potential time savings, standard values of time and expected demand growth" are the most widely cited among academic and professional planners. "We have found that HSR investment is difficult to justify," de Rus and Nombela (2007, 21) contend, "when the expected first year demand is below 8–10 million passengers for a line of 500 km, an optimal length for HSR to compete with road and air transport." The economic factors informing these general parameters have profound implications for high-speed rail planning because they encourage network planners to prioritise connectivity between densely populated metropolitan regions.

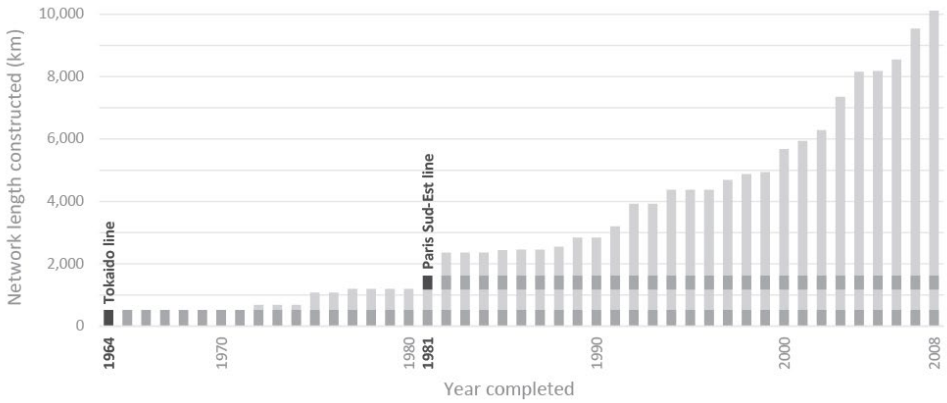
2.3. Political factors in network planning

It is important to reiterate that this is not a study into the economics of high-speed rail. Accordingly, it does not challenge the argument that "a careful assessment of the value for money invested in HSR infrastructure is especially needed given the high cost of infrastructure construction and the high proportion of sunk costs in total costs" (de Rus and Nombela 2007, 4). The study is, however, concerned with the economic rationalities that govern network planning because the principles of efficiency and growth can shape planning outcomes in powerful ways. Decisions about corridor alignment, station locations and service frequencies have profound consequences for the social welfare and economic potential of communities in non-metropolitan regions. Consequently, tensions between the transport efficiency objectives of network planners and the social, economic and environmental objectives of regional communities are inherent to high-speed rail planning (see Vickerman 2015). An example of this is provided by the way in which network planners tend to optimise corridor planning to supply 'efficient' intercity services

instead of to supply 'effective' interregional services that connect communities in non-metropolitan regions to each other and to communities in metropolitan regions (see Doomernik 2015).

However, there is a tension between the economic logics that should govern high-speed rail planning—according to many transport experts—and the political rationalities that govern its 'actually existing' development. "The rationale for the investment decisions in the recent past," de Rus and Nombela (2007, 4) observe, "goes far beyond the usual microeconomic approach used in project evaluation, into a less solid ground dominated by strategic and political arguments, usually related to regional development objectives." Additionally, Albalate and Bel (2012a, 23) have observed that "HSR programs may ignore the priority of efficiency factors and start their projects in corridors with relatively low traffic volumes, pursuing goals of equity and cohesion and the promotion of regional development." A frank analysis of the total length of high-speed rail infrastructure worldwide illuminates this contradiction. The Tokaido line (opened 1964) and Paris Sud-Est line (opened 1981)—the only two commercially viable projects in the world according to transport economists—account for just 924 km or 9.1% of 10,109 km of high-speed rail projects around the world completed between 1964 and 2008 (Figure 5).[2] The performance of subsequent projects has been mixed, with several examples recovering their operational costs but none fully recovering (or being expected to recover) their construction costs (see Albalate and Bel 2012a, b).

Figure 5. Global growth of high-speed rail network by year, 1964 to 2008



Data source: UIC (2022) Table 1.2 High-speed lines in commercial operation worldwide.

Dissonance between the economic logics that should, in principle, govern high-speed rail planning and the "strategic and political" logics governing its actual development (de Rus and Nombela 2007, 4) suggest a technocratic perspective is insufficient to understand the rationalities and practices that drive global growth of the

technology. As the geographer Michael Minn (2013, 186) observes, the political economy of high-speed rail gives "[insights] into the deep structural forces hidden beneath the visible infrastructural and superstructural components." Arguably, high-speed rail development is an inherently political phenomenon because its sheer scale and strategic importance has the potential to restructure the physical and social space of urban regions. "Even as HSR's popularity has boomed," academic planners Blas Luis Pérez Henríquez and Elizabeth Deakin (2017, 1) observe, "its implementation has become increasingly contentious . . . given the high costs of HSR projects, forecasts of costs, revenues, and ridership of the system have long been the subject of detailed scrutiny." Beyond fierce public debates about the merits of competing transport policies, or whether high-speed rail can promote regional economic development, reside deep-seated tensions about the forms of politics that ought to govern infrastructure planning:

> as justifications for investments have expanded to include socioeconomic and environmental objectives, so too the debates have expanded to contest the validity of such claims . . . debates are increasingly public and extend to ideologically charged policy issues such as the desirability of pursuing asserted project objectives, who benefits and who loses if the system is implemented, and more generally, the role of government versus that of the private sector in implementing infrastructure and providing public services. (Pérez Henríquez and Deakin 2017, 1)

Sociospatial perspectives on high-speed rail are more attuned to the influence of institutional and political factors on development outcomes than studies that assume a purely technocratic perspective. Common threads among this cohort of studies are, firstly, a concern for the social, economic and environmental impacts of high-speed rail development on regional communities and, secondly, a concern for how high-speed rail planning interacts with regional institutions. In contrast to some technocratic studies, case studies that adopt a sociospatial perspective have found evidence that high-speed rail contributes to population and employment growth in large and intermediate-sized cities and some medium and small-sized cities connected to a network (Bellet et al. 2012, Bellet 2016, Bellet and Santos Ganges 2016, Garmendia, Ureña and Coronado 2011). However, as some technocratic studies of high-speed rail development in Europe and Japan have shown, the economic benefits of investment tend to concentrate in more densely populated urban regions (Hiraishi 2019, Komikado et al. 2021, Mazzeo 2012, Vickerman 2018). Several regional-level studies have identified positive social and economic

outcomes in non-metropolitan regions connected to high-speed rail, but causality can be difficult to discern because of the large number of potential external factors (Preston and Wall 2008), including local socioeconomic conditions and regional policy settings (Chen and Vickerman 2017, Banister and Berechman 2001, also see Chen and Hall 2011).

Nevertheless, a consensus on the urban and regional effects of high-speed rail development has emerged among academic planners in recent years. As Carmen Bellet and colleagues observe, "the majority of analyses carried out have concluded that the presence of HSR is not a sufficient condition in itself to mechanically produce substantial improvements in the socio-economic structures and dynamics of cities" (Bellet et al. 2012, 195-96). Transport economist Roger Vickerman (2018, 31), drawing on more than twenty years of high-speed rail research, qualifies Bellet et al.'s (2012) claim by arguing that "transport infrastructure by itself is not likely to be transformative, but coupled with other policy interventions it can contribute to such an effect." The academic planner José Luis Miralles I Garcia concurs with Vickerman. Based on analyses of regional population growth in Spain, Miralles I Garcia (2019, 6) found that high-speed rail development "is necessary but not sufficient to bring about economic development" in non-metropolitan regions. The urban and regional effects of high-speed rail are therefore mediated by factors that are both economic and institutional in nature. Before examining the institutional factors in depth, however, it is prudent to explore the geographic and political factors that predispose communities in non-metropolitan regions to beneficial outcomes from high-speed rail development.

The development potential of high-speed rail stems largely from its "selective capacity to transform time distances and accessibility" (Ureña et al. 2009, 266). For example, regional communities can benefit from enhanced access to densely populated metropolitan regions where more employment opportunities, larger markets for goods and services and higher-quality social infrastructures are typically found. Benefits can also flow from trade and travel in the other direction if local firms take advantage of business and industrial development opportunities (Murakami and Cervero 2017, Pagliara, Delaplace and Vassallo 2015, Pagliara, La Pietra, et al. 2015) and local governments and property developers leverage urban regeneration opportunities (Beckerich, Benoit and Delaplace 2019, Han et al. 2012). However, the ability of regional communities to access the social and economic benefits of high-speed rail is mediated by the strength of their connection to the network. Benefits do not typically flow to regions located in between high-speed rail stations or outside of the economic influence of the corridor because of "tunnel effects" (Gutiérrez, González and Gómez 1996): a

phenomenon where intermediate regions experience deleterious social and economic effects because accessibility is polarized towards densely populated regions that are better connected to the network (Levinson 2012, 290).

Critical perspectives on high-speed rail from the regional economic sciences show that spatial planning considerations are but one factor among many to influence development outcomes. For example, high-speed rail tends to increase competitive pressures in non-metropolitan regions by extending the geographic reach of markets for labour, goods and services centred on densely populated metropolitan regions (Heuermann and Schmieder 2014). Consequently, agglomeration economies derived from the clustering and specialisation of advanced industries can give firms based in the metropolis a competitive advantage over their regional counterparts (Vickerman 1997). If improvements to spatial accessibility in non-metropolitan regions give local firms greater access to markets in metropolitan regions—affording opportunities for industrial development and business growth—it follows that the economic benefits (and dis-benefits) can flow in the other direction:

> A better connection between two regions with different development levels not only gives firms in a less developed region better access to the inputs and markets of more developed regions. It also makes it easier for firms in richer regions to supply poorer regions at a distance, and can thus harm the industrialisation prospects of less developed areas. (de Rus 2008, 14)

High-speed rail can give firms a greater number of regions in which to compete for the supply goods and services, but this can lead to deleterious economic effects in non-metropolitan regions if larger firms relocate to more accessible regions, or if small firms close because they cannot compete against larger firms entering the local market (Garmendia, Romero, et al. 2012). The impacts of economic restructuring can spill over into the social realm if high-speed rail development contributes to the gentrification of housing markets (Chen and Haynes 2015) and displaces vulnerable populations in regional communities (Mayer and Trevien 2017). Moreover, the scale of potential social and economic disruption is not limited to the geography of the city, the metropolis or even the extended city-region because, according to Banister and Givoni (2013, 324), "[high-speed rail] can potentially transform the geography of a country, bringing regions and cities closer to each other by improving accessibility." Consequently, they argue that governments must position high-speed rail as "the strategic backbone of the [national] transport system" by establishing robust institutional structures to ensure that network

planning is integrated with local land uses—existing and future—and regional transport networks (Banister and Givoni 2013, 324).

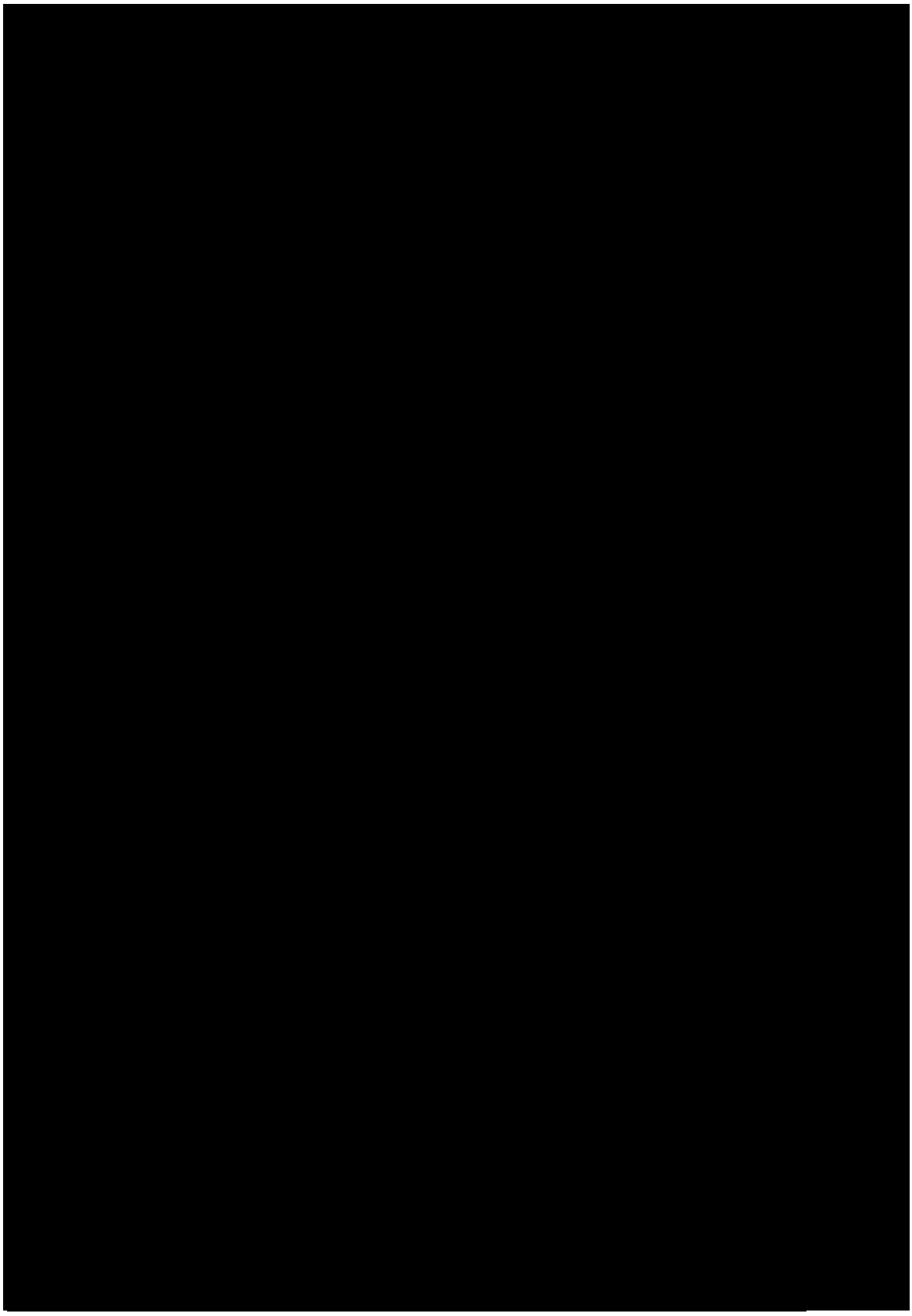
High-speed rail planning targets certain urban geographies for economic development—typically densely populated regions and large intermediate-sized cities—but it can also privilege certain geographic scales as armatures for economic restructuring. Spatial effects introduced by the technology tend to reorganise industrial functions at the scale of the city-region by drawing higher-order economic activities towards the metropolitan core and dispersing lower-order activities to peripheral regions (Ureña, Garmendia and Coronado 2009). As discussed, high-speed rail enables and sustains the global city-region, a contemporary urban phenomenon defined by the geographer Allen J. Scott (2019, 554-55) as "large spatially extended urbanized areas . . . locationally anchored by one or more metropolitan centers . . . spreading far outwards into diffuse hinterlands." Restructuring processes at the scale of the city-region take on national and global significance when high-speed rail is used to connect multiple metropolitan cores into a functionally integrated system of "supercities" (Wu, Perl and Sun 2015, 2016). Spiekermann and Wegener's (1994) iconic time-space maps of Europe, which measure the relative proximity of regions before and after the introduction of high-speed rail, illuminate the geographic and political implications of this new scale of city (see Figure 6). The maps visualise a future "shrinking continent" brought about by "a thrust of acceleration" from high-speed rail development. Notably, when interpreting the maps, the authors caution that:

> high-speed infrastructure connects only important cities, but not the space in between them. This generalisation hides the fact that the regions in between might become new peripheralised zones, in which accessibility is decreasing in relative or even in absolute terms through the elimination of interim stops, when high-speed trains are introduced. (Spiekermann and Wegener 1994, 671)

2.4. Influence of institutional factors on planning outcomes

Sociospatial perspectives on high-speed rail foreground the institutional and political factors that influence development outcomes in non-metropolitan regions. Of the academic literature that falls into this category, the review is most interested in case studies that situate network planning within a multilevel context where some "reallocation of authority upward, downward and sideways from central states" is evident

Figure 6. Time–space maps of the European rail network (a) 1993 and (b) 2010



Source: Spiekermann and Wegener (1994, Figure 14) The shrinking continent: new time-space maps of Europe.

(Hooghe and Marks 2003, 233). This is because national governments tend to centralise the institutions that govern network planning and development to manage the economic, technical and political risks involved (see Powell 1997). On the other hand, there is a tendency to devolve planning for station area developments and associated regional development initiatives to integrate the technology into regional institutions (see Bellet 2016, Hermelin and Gustafsson 2021). As José M. de Ureña and colleagues have observed, the institutional settings for high-speed rail planning "[reflect] the differences in rail services and technological culture of each country involved, their different city systems and hierarchies and their distinct political and decentralisation frameworks" (Ureña, Menerault, et al. 2009, 266). Stan Majoor and Dick Schuiling concur with Ureña and colleagues by arguing that institutional factors have a crucial bearing on local planning outcomes. They contend the challenge of integrating stations into settlement systems is primarily an institutional one, despite all the technical challenges:

> The problem for station redevelopment, as we perceive it, is not the lack of potential, good planning intentions, or imaginative ideas . . . Instead, the major challenge lies in the decision-making, and perhaps even more in the institutional fragmentation that needs to be resolved. To begin with the first, a major task of redeveloping stations is to manage a process that occurs in different domains of interaction, where different actors operate with different interests, goals and means, over different time scales. (Majoor and Schuiling 2008, 121)

Technocratic and sociospatial perspectives on the urban and regional effects of high-speed rail differ markedly in their understanding of factors that influence development outcomes. The latter perspective tends to naturalise uneven spatial development as an "inexorable" process driven by global economic and political forces (e.g., Terrill et al. 2020, 41), while the former perspective ascribes a degree of agency to regional communities in their pursuit of sustainable development outcomes (e.g., Feliu 2012). Nonetheless, some of the more probing technocratic studies in recent years have cited multilevel governance as a key factor in development outcomes for regional communities. Vickerman (2015, 2018), for example, while not pursuing institutional or political questions as a specific line of academic inquiry, has argued that more research into the influence of institutional factors is needed. In collaboration with Chia-Lin Chen, an academic planner (see Chen and Vickerman 2017, 2020), Vickerman has sought to understand the geographic and institutional factors that influence development outcomes

in non-metropolitan regions by bridging between the technocratic and sociospatial perspectives on high-speed rail.

In one study of the economic impacts of high-speed rail on intermediate regions, Vickerman (2015, 164) draws a similar conclusion to earlier studies by Bonnafous (1987), Givoni (2006) and Martin (1997) that "HSR has not led to the reduction in inequalities in accessibility and any associated economic consequences claimed for in EU policies." Rather than draw a line under the regional development question, however, Vickerman looks beyond the key economic indicators to identify several regulatory and political factors that could contribute to poor development outcomes. EU regulatory frameworks were foremost among these factors as "rail operators, especially those operating at an international level, are not incentivised to recognise the different levels of [passenger rail] market" and thus reduced service levels to intermediate and cross-border regions (Vickerman 2015, 164). Chen and Hall (2012, 94) identified a similar issue in the UK, where they found that frameworks governing privately-operated passenger rail services incentivised firms to cater to lucrative travel markets in economically prosperous regions and reduce levels of service in less prosperous regions, thus contributing to poor development outcomes.

In the same study, Vickerman (2015, 164) observed that obstacles to regional development presented by national regulatory frameworks were compounded by structural imbalances that rendered local and regional jurisdictions "powerless" in the planning process. To reduce disparities in regional accessibility and improve development outcomes "requires not just infrastructure provision but an appropriate regulatory framework for service provision and accompanying measures at the local level" (Vickerman 2015, 157). Technocratic perspectives on high-speed rail planning tend to construe poor development outcomes in non-metropolitan regions as evidence of a mismatch between the policy problem of regional disadvantage and the policy solution of regional connectivity. However, Vickerman (2015, 164) highlights the vital role of multilevel institutions in the planning process, arguing that: "clearly, the direct engagement of local and regional authorities in the development of new transport infrastructure is critical to ensure the right type of complementary development."

Ureña, Menerault, et al. (2009, 278) concur with Vickerman that "planning in both the political and the technical context" is crucial to obtaining positive development outcomes in non-metropolitan regions because "national, regional and local agreements about exactly how HSR should be introduced are vital for making the most of the transport investment." Their study into the impacts of high-speed rail on intermediate-sized cities

in France, Spain and the UK found that "HSR opens up new opportunities" for regional development; however, like Vickerman (2015), they found that development outcomes are contingent upon the integration of station sites into local and regional transport networks (Ureña, Menerault, et al. 2009, 266). In addition to effective multilevel institutional structures, Ureña, Menerault, et al. (2009, 278) observed that cities "experience a clear advantage . . . if they have an effective local political leadership with national political weight" because "the absence of these factors is likely to increase the risk of failure." With these lessons in mind, the review will now examine studies that focus specifically on institutional factors in network planning to understand their influence on development outcomes in non-metropolitan regions.

2.5. Conceptualising project governance

Local and regional institutions must play a central role in high-speed rail planning if one of the key objectives of governments is to promote regional economic development. As Ureña, Menerault, et al. (2009) point out, the institutional capabilities and political influence of local and regional institutions can help communities to pursue spatially connected planning strategies. It is often the case, however, that jurisdictions in non-metropolitan regions do not possess the planning authority or fiscal resources to advocate for strategies that involve complex and costly engineering works (Ureña, Menerault, et al. 2009, Feliu 2012). Additionally, planning for large transport infrastructures, and for the dynamic processes of urban change they catalyse, can exceed the technical capabilities of local governments and regional governing bodies (Bellet and Santos Ganges 2016). Examples of governance failure in high-speed rail planning highlight the economic and political tensions that can hinder the pursuit of spatially connected strategies (see Bellet et al. 2012), as well as the wider development processes that militate against sustainable development (see Feliu 2012). By contrast, recent studies have found that corridor planning and planning for station area developments can supply opportunities to build the institutional capabilities and political influence of regional communities.

Bellet et al.'s (2012) study of high-speed rail development in nine Spanish cities demonstrates how the efficacy of multilevel structures had a profound influence on development outcomes in non-metropolitan regions. It is important to note that Spanish governments, in keeping with that country's urban design culture, often opted for complex engineering solutions that integrated high-speed rail infrastructure into the centre or edge of provincial cities (Bellet et al. 2012, 165). This positioned high-speed rail as a catalyst for urban regeneration and regional economic development by promoting

the renovation of local and regional public transport networks and supporting the redevelopment of brownfield sites (Bellet et al. 2012, 170). Well-resourced local and regional institutions played a pivotal role in the successful Spanish cases. To offset the cost of complex engineering works, local authorities established capital holdings to co-finance station area developments in partnership with the private sector. Additionally, the national government established a special purpose agency to co-finance public private partnerships (PPPs) and reduce project risk by supplying bank guarantees to local governments and private firms (Bellet et al. 2012, 166). These arrangements gave local and regional institutions greater influence over the location and design of station area developments and associated investments in public transport networks (see Bellet and Llop 2005). What is clear in each of the successful examples is that local governments and regional authorities were central to

> . . . coordinating the introduction of the HSR service with strategic and territorial/urban planning. Only in this way is it possible to guarantee the complementarity between different actions and to appropriately integrate the new infrastructure and services into local development policies. (Bellet et al. 2012, 196).

Studies that understand the development impacts of high-speed rail from a sociospatial perspective typically connect the efficacy of regional economic initiatives to a larger regionalization project where some planning powers and fiscal resources are devolved to regional institutions. However, as in the case of Guadalajara, a provincial city 60 km northeast of Madrid, with greater autonomy comes greater risk. PPP initiatives attached to high-speed rail development in Spain relied heavily on Land Value Capture (LVC) to finance local strategic initiatives. To take advantage of a real estate boom during the late 1990s and 2000s, the City of Guadalajara positioned high-speed rail as the catalyst for several greenfield developments outside of the established urban area, with the new station situated nearby. However, speculative urban projects near the high-speed rail station were rendered financially precarious when credit markets collapsed during the GFC in 2007-08 (Marcinkoski 2015). The GFC proved problematic for other provincial cities in Spain that, like Guadalajara, used high-speed rail development to embark upon ambitions urban expansion projects (Marcinkoski 2015). In Guadalajara, the arrival of high-speed rail was supposed to give rise to a new city, but, as Bellet found

> . . . it was paralysed by the arrival of the economic crisis in 2008 . . . What is more, there is no shuttle connection between the new HSR station and Guadalajara's city centre because the route would be unsustainable given the very limited number of potential passengers. The existence of the station was the initial excuse to build an ambitious urban development project, but now the new inhabitants face many problems related to the lack of local services and amenities. (Bellet 2016, 53)

The example of Guadalajara and other provincial cities in Spain (Bellet 2016, Bellet and Santos Ganges 2016) and France and Germany (see Facchinetti-Mannone 2009, Menéndez et al. 2002) show a correlation between the economic and environmental performance of station area developments and connectivity to regional settlement systems. This is consistent with a study by Östh, Reggiani and Galiazzo (2015) that found a positive correlation between the economic resilience of regional communities and levels of spatial accessibility. More broadly, the case of high-speed rail development in Spain shows that strategic alignment between different government levels is a crucial success factor because it supplied regional institutions with the necessary political and financial supports. Moreover, the role of local governments and regional partnerships in network planning and development increased when station sites were integrated into the physical fabric of cities and connected to local and regional transport networks. By contrast, as Bellet observed, the level of coordination between government levels and social sectors diminished in proportion to the level of connectivity between station sites and regional settlement systems:

> Governance seems to be a fundamental issue in case of peripheral stations because they need coordinated actions to overcome the main challenges that confront them. However, as we have seen, in the majority of projects and plans there has been a general lack of coordination between different public administrations and an almost total absence of private-public cooperation. (Bellet 2010, 55)

Development outcomes in non-metropolitan regions are not only contingent upon effective cooperation between different government levels but also on the efficacy of regional institutions. This includes informal networks of state and non-state actors—municipal councils, regional business and industry groups and community organisations—as distinct from the formal structures that mediate between national,

state/provincial and local governments. As Bellet et al. (2012, 186) contend, "[local] agents must also be capable of developing strategies and actions that ensure the correct integration of the new infrastructure within the local socio-economic and physical environment." The likelihood of positive development outcomes increase when regional communities can leverage their institutional capabilities and political influence to align high-speed rail planning with local strategic initiatives including the renovation of public transport networks (Bellet et al. 2012, 196). Of considerable import to this investigation into high-speed rail planning in Hume is that:

> Any analysis of the effects of the HSR service should therefore take into consideration the characteristics and organisation of the space in question—both before and after the introduction of the new railway services—and also the strategies developed by the different agents to take advantage of the new infrastructure. (Bellet et al. 2012, 187)

To conceptualise the social and spatial aspects of the development process, Angela de Meer and colleagues detail three 'strategies' used to integrate high-speed rail into regional areas. The purpose of the first 'planning' strategy is to produce a spatial plan that is "coherent with the desired urban and regional development model" (de Meer, Ribalaygua and Martin 2012, 201). Ideally, de Meer et al. (2012, 201) observe, "[the] sustainable location of the station will enable the creation of a reasonable public transport network and a coherent operation of the territory, but these types of concerted decisions only arise when there is a coordinated plan at a sub-regional scale." The spatial plan supplies the foundation for the second 'project' strategy which involves the "articulation of the administrative process to create suitable infrastructures for station access, taking the regional and local scales into account" (de Meer et al. 2012, 201). It is notable in the context of this study that the nature and extent of development benefits derived from high-speed rail depend heavily upon the project strategy. "To extend the radius of influence of HSR around each station and optimise the territorial benefits of HSR investments," de Meer et al. (2012, 201) contend, "the local and regional transportation system must be reorganised at an early stage." A key challenge is therefore to balance the strategic objectives of central governments, rail operators and private developers with the planning objectives (and development needs) of regional communities.

A third and final 'promotional' strategy involves organising regional actors "to take full advantage of the HSR's urban and industrial development potential by coordinating business development opportunities" (de Meer et al. 2012, 201). There is an obvious role

for regional authorities and other formal institutions in this part of the integration process, but de Meer and colleagues highlight the entrepreneurial nature of the actor networks involved; typically, informal coalitions of local governments and regional business and industry groups. A common feature of regions where actors have secured positive outcomes from high-speed rail development is the presence of multilevel structures that coordinate the activities of governments and private firms. As de Meer et al. (2012, 200) observe, "[behind] each modification of the functional urban or territorial structures there is a long administrative process, which is reflective and coordinated when done well." It follows that corporatisation of local and regional institutions is a feature of high-speed rail planning because regions that exhibit these qualities are generally more successful at securing development benefits than regions that do not.

2.6. Qualities of regionally integrated high-speed rail

In closing, key insights from this first part of the literature review are distilled into three qualities of regionally integrated high-speed rail planning. The three qualities—spatially connected, institutionally integrated and politically aligned—supply an ideal-typical model to assess the planning merits of different high-speed rail proposals. The model acts as a normative compass for the research. It also provides a departure point for the second part of the literature review (Chapter 3) where a critical re-conception of high-speed rail planning is developed—a necessary task given the disparate perspectives on the development impacts of high-speed rail reviewed in this chapter. Technocratic perspectives, for example, highlight pre-existing economic and geographic conditions to justify claims about the urban and regional effects of high-speed rail development; however, these perspectives typically overlook the fact that regional transport policy is bound up in ongoing struggles for economic resources and political autonomy. It follows that sociospatial perspectives on high-speed rail development seek to move beyond "zero-sum-game thinking" (Chen 2013, 1) by examining the institutional and political factors that influence planning outcomes. These authors highlight the potential for high-speed rail planning to transform the institutional structures that govern development in non-metropolitan regions, but they do not sufficiently register the constraints imposed by neoliberal urban governance. Consequently, the three qualities of regionally integrated high-speed rail planning are posited tentatively here because additional, critical insights will be brought to bear on the model in the next chapter.

2.6.1. Quality 1 – Spatially connected

High-speed rail stations must be 'spatially connected' i.e., integrated into regional settlement systems and able to promote balanced patterns of spatial growth by targeting accessibility improvements towards established communities.

The spatial relationship between high-speed rail stations and established urban areas and transport networks has a profound influence on development outcomes in non-metropolitan regions (Banister et al. 2013, 322). Assessing the strength of connectivity between station areas and regional settlement systems requires a multiscale spatial analysis of network planning strategies and current regional plans. At the corridor level, strong connectivity to the cores of densely populated regions is imperative because of the transport task of high-speed rail. Strong connectivity to transport hubs in intermediate cities along the corridor is also important because these cities typically function as gateways between rural and regional areas and major cities (Chen and Hall 2012). Central urban areas are the ideal location for stations in these cities, but strong connectivity can also be achieved by locations on the edge of established urban areas if the station is connected to local and regional public transport systems (Ureña, Menerault, et al. 2009, Garmendia, Romero, et al. 2012) and station area developments complement established industrial functions (Loukaitou-Sideris et al. 2012).

However, studies of the urban impacts of high-speed rail show that network planners tend to opt for greater locational flexibility when integrating stations into sparsely populated regions. Because high-speed trains cannot stop at every city along a corridor, the challenge for network planners is to strike a balance between the efficiency objectives of national governments and railway operators and regional accessibility (see Bellet et al. 2012). Centre and edge locations are preferred when a station services a medium and small-sized city because this gives scope for local and regional authorities to leverage urban development opportunities (Facchinetti-Mannone 2009, Menéndez et al. 2002, Bellet 2016). However, stations that are close to established urban areas can be problematic if the demands of project procurement exceed the technical, fiscal or institutional capabilities of local authorities, or if there is insufficient financial or political support from central governments to implement a spatially connected planning solution (Feliu 2007a, b). Crucially, smaller cities that do not receive a high-speed rail station but are within the economic influence of the corridor should be connected to the network by secondary public transport modes to avert deleterious economic and environmental effects (Garmendia et al. 2011, Coronado, Ureña and Miralles I Garcia 2019). Ergo there

is a need for effective multilevel arrangements to integrate the station infrastructure into regional settlement systems.

The alternative to a central or edge city station location is the peripheral location. Planning studies show that peripheral stations are unlikely to support significant development opportunities in non-metropolitan regions because they lack a strong connection to established urban areas (Facchinetti-Mannone 2009, Menéndez et al. 2002, Bellet 2016). This location strategy can provide some benefits if the station is connected to regional public transport networks, but if station access is predominantly by car then it is likely to promote low-density forms of suburban development (Facchinetti-Mannone 2009). While "different options can be considered according to different city development priorities" (Banister and Givoni 2013, 336), the 'plane on rails' approach to network planning tends to concentrate development benefits in metropolitan regions instead of extending opportunities for urban renewal and economic development to non-metropolitan regions. By contrast, regionally integrated high-speed rail planning pursues a more spatially equitable dispensation of development benefits by targeting accessibility improvements towards established communities.

2.6.2. Quality 2 – Institutionally integrated

> *High-speed rail planning must be 'institutionally integrated' i.e., responsive to inputs from regional actors and able to promote the development goals of communities by supporting the implementation of local strategic initiatives.*

Case studies from this literature review make it clear that a high-functioning set of institutional capabilities is needed to integrate the diverse strategic objectives of planning actors. In general terms, project governance structures that integrate with regional institutions are more likely to produce planning outcomes that are spatially connected to regional settlement systems. However, the case studies in this review used spatial planning criteria as proxies to assess the levels of institutional integration observed, for example, by comparing network planning strategies and current regional plans to understand whether and to what extent the goals of national and regional actors aligned (see Garmendia, Ribalaygua and Ureña 2012, Hermelin and Gustafsson 2021, Ribalaygua and Perez-Del-Caño 2019). This method combined a qualitative assessment of the applicable regional policies and spatial plans with knowledge of the urban dynamics introduced by high-speed rail. However, the method could be problematic if current policies and plans do not accurately reflect the goals or needs of regional communities,

or if policymakers do not foresee certain planning issues (or opportunities). Consequently, it will be necessary to undertake a detailed analysis of the national and regional structures that govern high-speed rail planning to assess the levels of institutional integration obtained by different proposals.

Numerous case studies illuminated the governance structures that influence social, economic and environmental outcomes from high-speed rail development. Foremost are the formal structures of state planning including national, state/provincial and local governments and regional governing bodies that formulate regional policy and deliver economic initiatives including public transport projects. This includes executive government, agencies and departments responsible for implementing government policies and state-owned corporations and statutory authorities with delegated powers. The relationship between these actors will vary depending on the national and regional context. In general terms, case studies highlighted the importance of effective working relationships between governments at different territorial levels—national, state/provincial and local—and the working relationship between governments at the same level—state/provincial governments and local governments—that share a border.

The authors of case studies offered differing opinions about whose strategic goals ought to be prioritised in the planning process. Nevertheless, there was evidence to suggest that national contexts with devolved multilevel structures were more conducive to institutional integration. Given the power asymmetries that characterise multilevel governance in Australia, a contribution of this research will be to identify institutional sites and governance practices that can promote a regionally integrated approach to high-speed rail planning. This will involve analysing the formal institutions and informal networks that state and non-state actors use to advance their strategic goals through project planning. Actors in this latter category include multinational firms, national industry groups, corporations and trade unions as well as business and industry groups from the study area. It follows that it will be important to develop a critical conception of the 'region' that captures the spatial geographies of actor networks who organise around each high-speed rail proposal.

2.6.3. Quality 3 – Politically aligned

> *High-speed rail planning must be 'politically aligned' i.e., follow an agreement between Australian governments to implement spatially connected planning solutions by devolving a degree of planning authority and fiscal resources to regional institutions*.

The first two qualities of regionally integrated high-speed rail are fundamental to the sustainable development of non-metropolitan regions. However, as criteria, they are somewhat idealistic given the realpolitik of transport infrastructure planning. The interests of regional actors are typically subsidiary in the planning of high-value, high-risk projects like high-speed rail, where decision-making is tightly controlled by central governments and typically influenced by powerful non-state actors. As the geographer Bent Flyvbjerg (2005, 50) observed, when reflecting on two decades of research into infrastructure planning, "Machiavelli seems to have been [the] chief architect" of many projects because power determines "what is actually happening in city politics and planning." Nevertheless, the case studies reviewed in this chapter give evidence that 'political alignment' between differently empowered actors in the planning process—between governments at different territorial levels and between the state and non-state actors—is possible. The case of Spain provides one example where a degree of political and fiscal devolution enabled spatially connected planning solutions (Bellet et al. 2012, 166). The case of France provides another example where regionalisation of the national railway network paralleled high-speed rail development and central government policies enhanced the planning authority and fiscal resources of regional administrations (Ollivier-Trigalo and Barone 2011).

These insights into the politics of high-speed rail planning bring the review full circle to the question 'what is high-speed rail?' The political context for high-speed rail development in France and Spain was the formation of the EU and EC policies to integrate member states into the new economic and political block. A salient feature of the European project is a consensus among central governments that devolution facilitates the economic and political objectives of the union while cultivating the autonomy and identity of its regions (see Antonsich 2010, Paasi 2009). Any redistribution of power is likely to manifest in more subtle ways in the national context for this investigation, Australia, where regional institutions are politically weak and poorly resourced compared to their national and state/territory counterparts (Stilwell and Troy 2000, 924, also see Gleeson 2001, 137), and institutional reforms in recent decades "have produced a layer of networked governance that is different from that overseas" (Everingham, Cheshire and Lawrence 2006). This highlights a key challenge for the second part of the literature review: to develop a conceptual framework that is sensitive to subtle shifts in the institutional and political contexts for high-speed rail planning in Hume.

(9,800 words)

2. Figure 5 covers the period of global growth in high-speed rail from 1964, when the Tokaido line opened in Japan, to 2008 because 2008 is the starting date of this study.

Chapter 3. Spatial governance: a conceptual framework

The purpose of Chapter 3 is to develop a conceptual framework for the research by reviewing critical perspectives on urban governance from the spatial planning and urban studies literatures. The opening sections relate the governance models found in the high-speed rail planning literature (see Chapter 2) to general models of governance that are foundational to contemporary urban scholarship. Recent debates about the merits of different governance models are then explored to understand how infrastructure planning and regional policy constitute forms of 'spatial governance'. Latter sections of the review consolidate the conceptual framework for the research by examining Mike Raco's concept of 'hybridities' for its potential to illuminate the rationalities and practices of high-speed rail planning in Hume. With these critical perspectives on governance in mind, the concluding section reconceptualises the three qualities of regionally integrated high-speed rail planning developed in the previous chapter.

3.1. Conceptualising spatial governance

Spatial governance entered the urban studies lexicon in the 1980s to describe models of 'comprehensive development' and 'regional planning' that diverged from centralised models of state planning predominant in the post-war era.[3] The usage of spatial governance evolved during the 1990s to denote political structures that are decentralised and post-Fordist in character (see Amin and Malmberg 1994, 242, Lee 1999, 7, Lovering 1999, 19, Marsden 1996, 254), but it was not until the mid-2000s that geographers and academic planners enlisted the concept to interrogate large urban projects (see Healey 2006b, Tewdwr-Jones 2006, Allmendinger and Tewdwr-Jones 2006, Hillier 2007). In recent years, Phil Allmendinger and Graham Haughton developed spatial governance into a conceptual framework to understand the influence of neoliberalism on spatial planning and urban governance (see Allmendinger and Haughton 2012, 2013, Allmendinger 2016). Allmendinger and Haughton draw on the work of Neil Brenner, Jamie Peck, Nikolas Theodore, Adam Tickell and others to relate observations about the development of cities and regions to global economic, institutional and political shifts (see Brenner 2004, Brenner and Theodore 2002a, b, and Peck and Tickell 2002b).

Spatial governance is often used by academic planners as shorthand to describe forms of 'strategic spatial planning' that aim to "[integrate] interests from different policy sectors, different countries and different scales in a specific area" (de Vries and Priemus 2003, 231). Notably, strategic spatial planning is distinct from 'sector-based planning'

where large urban projects "tend to be addressed in sector-specific silos which overlook the interdependencies between sectors" (Hall et al. 2014, 2812). It is also different to conventional forms of 'land use planning' where decisions about the development of individual sites and urban precincts are regulated by government statutes and bureaucratic processes (see Gilroy and Booth 1999, 309). Strategic spatial planning can incorporate elements of both these planning practices, but its main purpose is to promote "self-conscious collective efforts to re-imagine a city, urban region or wider territory and to translate the result into priorities for area investment, conservation measures, strategic infrastructure investments and principles of land use regulation" (Healey 2004b, 46).

Theories of governance that underpin the spatial governance literature broadly conform to Liesbet Hooghe and Gary Marks' concept of 'multilevel governance'. Hooghe and Marks (2003) developed multilevel governance to conceptualise the social structures that shape public policymaking in national contexts where political authority is distributed across jurisdictions and sectors. The concept applies to Australia where formal institutions govern relations between the Commonwealth, State and Territory governments and Local governments (Gleeson 2001, Stilwell and Troy 2000) and interactions between governments, private firms and civil society are governed by informal arrangements (Brown and Bellamy 2010) and hidden exchanges between politicians and elites (Hendriks and Lees-Marshment 2019). Multilevel governance recognises that central governments do not "monopolize" the social structures that govern policymaking "but are one among a variety of actors contesting decisions that are made at a variety of levels" (Marks et al. 1996, 8). These concepts apply to high-speed rail planning and regional governance where decisions about spatial strategies, project implementation and procurement structures are influenced by a range of actors from different social sectors and regional geographies (see Deakin 2017, 15-16).

For Hooghe and Marks (2003, 234), "[the] diffusion of decision making away from the central state raises fundamental issues of design that . . . can be conceptualized as two contrasting types of governance." In the first type, governance works in a "general-purpose" way that involves the "dispersion of authority to jurisdictions at a limited number of levels" so that "every citizen is located in a Russian Doll set of nested jurisdictions, where there is one and only one relevant jurisdiction at any particular territorial scale" (Marks and Hooghe 2004, 3). In Australia, this describes the formal institutions of government—Commonwealth, State and Territory and Local government levels—where "authority is dispersed to a limited number of general purpose jurisdictions, which are stable across time and do not overlap" (Kay 2015, 408). In the

second type, governance works in a "specialized" way where an infinite number of jurisdictions can "come and go as demands for governance change" (Marks and Hooghe 2004, 3). This concept applies to regional institutions in Australia that exist as "a patchwork of numerous overlapping jurisdictions, which are often single-task, include non-government actors and [are] potentially short-lived according to the nature of the governance challenge" (Kay 2015, 408).

This binary conception of governance as either general purpose or special purpose will be problematized in subsequent sections of the literature review. Here, however, both models provide a useful heuristic to understand the spatial and temporal qualities of different institutional and political structures. Hooghe and Marks' delineation of two governance types translates to the spatial governance literature, where two 'models' of urban governance predominate. The first type of governance is characterized by formality and permanence and is variously referred to as 'formal governance', 'hierarchic governance' or the 'vertical dimension' of governance. By contrast, the second type is characterized by informality and temporality and referred to as 'informal governance', 'networked governance' or the 'horizontal dimension' of governance.

Marks and Hooghe (2004, 30) developed multilevel governance as an applied research framework to 'resolve' problems with formulating and implementing public policy in devolved power contexts. The two types of governance provide "conceptual benchmarks" that facilitate the analysis of policymaking processes where actors from multiple territorial levels, social sectors and regional geographies are involved. Marks and Hooghe (2004, 29) observe that both governance types work together to give policymakers a degree of "scale flexibility" by "[allowing] jurisdictions to be custom designed in response to externalities, economies of scale, ecological niches, and preferences." Such flexibility can also facilitate "conflict avoidance" and "insulate decision making from other, potentially contradictory, issues" (Marks and Hooghe 2004, 29). These features of multilevel governance are important to note at this point of the review because they indicate that, as a conceptual framework, it is underpinned by forms of instrumental rationality that may not serve the critical orientation of this study.

Multilevel governance supplies a set of governance models that are useful in a general sense; however, critiques of the efficacy and desirability of both models in practice must inform their use in the empirical work. The notion that social conflict can be resolved by the application of bureaucratic reason is problematic in the context of large infrastructure planning where project governance structures tend to be unresponsive to inputs from less-powerful planning actors (see Flyvbjerg 1998, Flyvbjerg, Rothengatter

and Bruzelius 2002). Allmendinger and Haughton (2012, 89) observe that within such structures, "conflict has not been removed from planning, but it is instead more carefully choreographed and, in some cases, displaced or otherwise residualised." The next section will explore two 'perspectives' on governance from the spatial governance literature that shed a critical light on the general governance models developed by Marks and Hooghe. For Jesse Heley (2013, 1327), "within this body of literature there are discernible differences . . . it is evident that some of the proponents of the new spatial planning are more rooted in a political economy approach . . . while others are more disposed to post-structural accounts." A brief exploration of these divergent perspectives on governance will set the conceptual foundations for the research.

3.2. New regionalist and relationist perspectives

The first perspective on governance, 'new regionalism', is connected to broad shifts in the regulation of economic and political life that coincided with the end of the Cold War (1947-1991). In studies of geopolitics, international trade and economics, new regionalism denotes a period of institutional change during the mid-1980s and 1990s when regional organizations like the EU, Asia-Pacific Economic Cooperation forum and Association of Southeast Asian Nations formed to promote economic deregulation, international trade and regional development (Ethier 1998). The term carries special meaning in the spatial planning and urban studies literatures where it connotes a "renaissance of cities and regions" that paralleled processes of economic globalisation and regional integration (Macleod 2001, 804). For John Lovering (1999, 383), these worldwide economic, political and spatial phenomena are connected to novel forms of urban governance by a common article of faith: that the regional scale is "uniquely appropriate to engender the type of formal and informal interactions . . . the kind of economic interactions . . . the flexible economies of scope required for survival in globalizing markets."

In principle, new regionalism involves the devolution of political authority from central states to supranational or subnational jurisdictions (Jessop 2004a). Conceptually, new regionalism is akin to Marks and Hooghe's (2004, 3) first governance type because it works through the formal institutions of government. A simple translation of new regionalist principles to urban governance is supplied by the example of strategic spatial planning in Europe, where it is common for central governments to delegate or share decision-making authority with subnational jurisdictions using existing or newly created institutional structures. Brenner (2004, 218) conceptualises such practices as "state spatial

strategies" because they are used by central governments to facilitate the 'embedding' or 'territorialisation' of global capital flows into regions. Other examples of state spatial strategies include central government support for public-private partnerships, the delegation of industrial policy to supranational and regional institutions, and state-financed megaprojects for energy, telecommunications and transport that promote the economic and political integration of regions (Brenner 2004, 218-19).

New regionalism is characterised in the urban studies literature as a form of state planning that, in concept, addresses local planning challenges through regional cooperation (see Wheeler 2002, 267-68) and ensures "that economic ambitions are tempered with a respect for social equity and environmental integrity" (Lawrence 2005, 146). Advocates of new regionalism contend that it can promote a clearer articulation of local needs and, potentially, a more equitable distribution of development benefits between central and peripheral regions (Marks and Hooghe 2004, 27-28). However, critics of new regionalism argue that central government strategies for 'delimiting' and 'nesting' regions can instrumentalise the social space of communities and serve ulterior economic and political motives. Patsy Healey (2007, 11), for instance, observes that new regionalism treats regions as static "containers" when they are instead constituted by a "complex mixture of nodes and networks, places and flows, in which multiple relations, activities and values co-exist, interact, combine, conflict, oppress and generate creative synergy." Governance strategies that 'fix' regional space can be useful at a procedural level, Healey (2006a, 536) suggests, when "allocating sites for development and developing criteria for guiding changes to local environments," but at a strategic level she argues that "many relations are ignored or inadequately considered because those taking the lead in strategy formation are unable to 'see' the relations in question."

The predominant concern here is that governance practices intended to foreground the unique identity of regions instead constrain the prospects for democratic planning because actors focus on the socioeconomic, cultural and environmental conditions that divide communities and not on the commonalities that engender solidarity. Brendan Gleeson (2003, 222) highlights a related concern that stems from the way new regionalism "presupposes a focus on economic issues rather than on socio-cultural or environmental concerns." Although a global phenomenon, the economic and political rationalities that underpinned the formation of global trading blocs had profound consequences for the way that government policymakers conceptualise the needs of regions. For Healey (2004b, Figure 5), the practice of fixing regional boundaries is part of a "positioning strategy" that reframes social and economic disparities between regions

as “competitive advantages” and orients local development needs towards national economic, industrial and political imperatives. In its intent, therefore, the model of political devolution offered by new regionalism can empower local communities to articulate and pursue their own strategic goals. However, in practice, local planning strategies and regional policies tend to conform to the goals of central governments.

The second perspective on urban governance from the spatial planning literature foregrounds planning practices enacted through informal or ‘networked’ social structures. For Jesse Heley (2013, 1325), this perspective encompasses exponents of the ‘new spatial planning’ who adopt “elements of relational thinking that seek to alternatively augment, destabilize and overturn orthodox administrative categories and divisions of space.” This includes academic planners like Patsy Healey (2004b, 50-51) who view new regionalism as an “authoritarian conception of power” that suppresses generation of “new identities and new kinds of investment proposals from unexpected directions.” When spatial planning is practiced as a form of knowledge production, Healey (2004b, 50-51) contends, power can “be exercised in a generative way” that builds local capabilities and promotes social innovation.

> Collaborative approaches [to spatial planning] emphasise the importance of building new policy discourses about the qualities of places, developing collaboration among stakeholders in policy development as well as delivery, widening stakeholder involvement beyond traditional power elites, recognising different forms of local knowledge, and building rich social networks as a resource of institutional capital through which the new initiatives can be taken rapidly and legitimately. (Healey 1998a, 1531)

A relationist perspective on urban governance views the production of “richer and more inclusive spatial and governance imaginations” as a form of resistance to the power asymmetries and “contextual blinkeredness” of new regionalism (Healey 2006a, 532). According to Ash Amin (2004, 33; 42), academic planners like Healey promote “a relationally imagined regionalism that is freed from the constraints of territorial jurisdiction” and “nested or jostling territorial configurations, of territorial attack and defence, of scalar differences, of container spaces.” Andreas Faludi (2010, 44), another relationist thinker, argues that networked social structures provide the optimal “mode of operation” for addressing urban policy problems because they allow actors from diverse levels, sectors and geographies to collaborate on spatial strategies. In this vision for urban governance, geographically diffuse institutional structures mobilise new ways of

understanding policy problems (Healey 2006a, 534) and allow progressive development discourses to migrate from one geography to another (Healey 2006c, 304).

It follows that relationists draw a moral distinction between new regionalism and forms of spatial planning that centre 'communicative' or 'values-based' forms of rationality in urban governance. Models of urban governance that privilege lived experience over expert knowledge provide an example of this. Additionally, it is argued that national discourses about social, economic and environmental issues are more effectively rescaled if local knowledge and values are privileged in planning processes (Watson 2002, 31). However, it has also been observed that networked social structures intended to promote "co-production" of policies and spatial plans (Albrechts and Balducci 2013, 21) are readily co-opted by central governments and corporate actors to promote ulterior objectives (Allmendinger and Haughton 2009, McGuirk 2001, Newman 2008). Allmendinger and Haughton (2013, 23), for example, argue that "informal spaces of planning" are now "largely 'assenting' to the prevailing paradigm, helping to create supportive forms of neoliberal spatial governance." Spatial planning is now carefully curated by central governments to promote the goals of politicians, bureaucrats and professional planners over the goals of local communities (Tewdwr-Jones and Allmendinger 1998, 1987). Consequently, social and political conflict is "deferred and displaced" from planning as governance strategies like 'consensus finding', which are designed to promote alignment between diverse actors, routinely marginalise the claims of dissenting actors (Allmendinger 2016, 157).

Planning practices structured around collective consensus formation underpin what the geographer Erik Swyngedouw calls 'governance-beyond-the-state'. Instead of challenging state and corporate power through more localised, equitable and just forms of governance, Swyngedouw (2005, 2001) observes that governing by consensus "conceals" the actual locations of authority and "choreographs" actors in ways that erode the democratic prospects of planning. Furthermore, drawing on Pierre Bourdieu (2002) and Bronwen Morgan (2003), Swyngedouw (2011, 372) relates these practices to a creeping "economisation of politics" and "depoliticisation of economic life." "A particular fantasy of autopoietic organization of the economy," he argues, "has sutured political imaginaries of how to produce and organize the distribution of social wealth, one centered on a practice that seemingly separates economic dynamics from the political process" (Swyngedouw 2011, 372). Instead of democratising spatial planning to the benefit of local communities, the informal structures that underpin governance-beyond-the-state work to recentralise state power and corporatise urban governance.

3.3. Neoliberal spatial governance

A third model of governance emerged in recent decades to conceptualise the corporatist structures that influence state planning. 'Market governance' describes a set of labour management practices that evolved in the commercial sphere in the 1980s and migrated into urban and regional planning in the 1990s when theories of 'new public management' gained traction in government bureaucracies. Louis Meuleman (2019, 29) describes market governance as a "new governance style" that "treats government organizations as if they were business units, prefers using market-based instruments like taxes, and focuses on principles such as efficiency, competition, devolvement and empowerment." Examples of market governance are government policies that outsource responsibility for infrastructure provision to the private sector and management practices that assess the performance of government agencies and departments using market-based criteria. In practice, Meuleman (2019, 30) observes that market governance promotes the objectives of non-state actors by exploiting the power of state institutions, co-opting legislative and legal frameworks and forming new hybrid structures to implement policy reforms and projects. The state is 'hollowed out' by commercial rationalities and practices that diminish but do not dismantle the bureaucratic structures that give central governments' the power to regulate cities and regions. Line of decision-making authority, responsibility and accountability become increasingly blurred by "a fusing of private ambition and resources with government power . . . a new corporate state born of urban necessity and with unprecedented authority to address disorders" (Gleeson 2017, 208).

Market governance is now an established theory of governance in the planning literature but its ambivalence towards the geographic dimensions of governance diminishes its utility to this study. An example of the conceptual limits of market governance is provided by the work of Schatz and Rogers (2016) who, like Meuleman, understand neoliberal governance as a fusion of different governance models. "Rather than fitting neatly together," Schatz and Rogers (2016, 37) observe that hierarchical, networked and market governance constitute an "untenable . . . ménage à trois" of discrete "governance spaces" from which "fundamental theoretical and practical tensions" arise. Like Bob Jessop (1997, 2003, 2004b), they argue that "government is not a passive social actor in the neoliberalisation of planning governance . . . but rather a key player responsible for shaping and reshaping . . . urban, peri-urban and regional spaces" (Schatz and Rogers 2016, 42). However, unlike Jessop, they do not study how the spatial geographies of state planning are transformed by the rationalities and practices of

neoliberal governance. Attention is drawn instead to the discursive and institutional practices that centre neoliberal doctrines in urban policy. Consequently, new hybrid institutional structures are construed as aberrant forms of "market-centric democracy" where corporate state structures co-opt the institutions of democratic planning (Schatz and Rogers 2016, 38) rather than as new geographies of governance formed by hybrid rationalities, discourses and practices.

Conceptions of urban and regional planning as 'neoliberal spatial governance' (see Haughton, Allmendinger and Oosterlynck 2013, Allmendinger 2016) illuminate new geographies of urban governance more vividly than market governance. This is not to suggest that market governance, as conceptualised by Meuleman (2019) and Schatz and Rogers (2016), is somehow blind to sociospatial phenomena—indeed, a strong normative agenda underlines these critiques and centres socioeconomic and socioecological concerns in the research. Rather, it is to say that market governance does not attend explicitly to the spatial geographies of governance and thus to questions of scale that orient the spatial governance literature. As Swyngedouw (2011, 370) points out, we should be wary of compartmentalising social space and geographic space because "re-vitalising the political possibilities" of the post-political condition is "a spatialized emancipatory project." "The political configures its own theatre," Swyngedouw (2011, 378) argues, "one that opens up a new spatiality within the specific historical-geographical configurations and their unevenness that mark the existing socio-spatial order." Recognising this, Swyngedouw elicits a hybrid conception of urban space—part social, part geographic—that must proceed any understanding of the institutional dimensions of neoliberal governance.

Neoliberal spatial governance supplies a conceptual framework to understand the interlocking geographies of state and non-state actors that regulate urban development. Reflecting on the two "heartlands" of neoliberalism—California in the United States of America (USA) and South East England in the UK—Jamie Peck and Adam Tickell (2002a, 387) contend that sociospatial relations in these regions were "qualitatively different" compared to other regions around the world. Neoliberalism, they observed, "inhabited not only institutions and places but also the spaces in between, playing a decisive role in constructing the 'rules' of interlocal competition by shaping the very metrics by which regional competitiveness, public policy, corporate performance, or social productivity are measured" (Peck and Tickell 2002a, 387). These understandings resonate with Healey's (2004b, 2006a, b) observations of the dialectical nature of state-sanctioned 'positioning strategies' and informal processes of 'identity formation' in

spatial planning, but with one key difference: these strategies and processes are integral to the neoliberalisation of urban space. As Peck and Tickell (2002a, 392) point out, "the deep neoliberalisation of *spatial relations* represents a cornerstone of the project" (emphasis added).

Another feature of the spatial governance literature that separates it from more generalised critiques of neoliberal governance is a strong focus on the institutional geographies that shape cities and regions. For Brenner et al. (2010), the increasingly uneven nature of spatial development stems from the 'variegated' character of its governing institutions. Observing that "neoliberalization projects build on, exploit, intensify and canalize inherited differences among (supranational, national and subnational) regulatory landscapes," Brenner et al. (2010, 195) contend that neoliberalism is defined by "the systematic production of variegated geoinstitutional differentiation". This understanding of neoliberalism has methodological implications for any investigation into high-speed rail planning because it eschews binary conceptions of neoliberalism as either "an omnipresent, hegemonic force" or "an unstable, hybrid and contextually specific presence" (Brenner et al. 2010, 185). A variegated conception of neoliberalism instead foregrounds the geographically uneven nature of regulatory practices that sustain uneven development (Brenner et al. 2010, 185). The differentiated nature of urban policy responses by national and subnational jurisdictions gives neoliberal urbanisation its variegated character. It is in this sense that neoliberalism 'inhabits' the space both within and between regions (Peck and Tickell 2002a, 387) and animates "the production of geographical difference" across cities and regions (Brenner 2009, 28).

Planning studies that adopt neoliberal spatial governance as an interrogative frame attend to the geographic and institutional dimensions of these 'in-between' spaces of urban governance. An example of this is provided by Allmendinger and Haughton (2009, 618) who observe that spatial governance is an "intriguing usage of strategic and delivery interventions at scales other than those of the statutory planning system (local and regional), as planning actors necessarily learn to work within complex multilayered, fluid, and sometimes fuzzy scales of policy and governance arrangements." Their intrigue in this case was piqued by the quasi-coordinated fashion in which spatial planning 'steers' self-governing actors towards the economic and political objectives of government (Allmendinger and Haughton 2009, 626). State spatial plans were enacted, they observed, through hybrid structures that connected the formal institutions of government to informal networked structures formed by governments and non-government actors. Recognising that neoliberalism co-opts both the formal and informal spaces of governance "adds a

new dimension to the notion of spatial planning, as it makes clear how much of the real work of planning takes place outside the formal system for planning, but necessarily with strong linkages to it" (Allmendinger and Haughton 2009, 632).

These understandings of neoliberal spatial governance build upon the governance models supplied by Marks and Hooghe and the new regionalist and relationist perspectives to inform the theoretical framework of this study. Each concept foregrounds a different set of social and spatial ontologies to understand how planning actors organise to pursue their development goals, but what is not clear is how the different social structures interact to embed regional policies and spatial plans into places. It will be important to understand how the 'top-down' and 'ground-up' structures of planning relate because promoting the strategic goals and development needs of regional communities is a quality of integrated high-speed rail planning (see Chapter 2). The new regionalist and relationist perspectives present opposing positions on the utility of different governance models, but the exponents of each perspective do not explore how the models interact in practice. Critical perspectives on neoliberal urban governance give some insights into these interactions; however, the nature and scale of these analyses are too high-level and abstract to use in the empirical work.

3.4. A hybrid conception of governance

This section explores Mike Raco's concept of 'hybridities' to develop a conceptual framework that applies to the empirical work in this study. Hybridities conceptualises the structures of state planning as contingent and forged through political struggles between diverse actors in the development process. Accordingly, development agendas advanced by state and powerful non-state actors "need to be embedded in broader processes of socialisation and the meeting of autonomous and contrasting political demands" (Raco 2005, 343). Hybridities therefore has the potential to foreground moments when less-powerful actors influence development processes because it conceptualises state planning as a form of political negotiation. According to Raco (2005, 343), conceptions of governance as hierarchic, networked or neoliberal do not describe governance 'on the ground' because they enlist "top-down discourses and ideologies to explain diverse development practices." Invoking Jessop's (2002, 460) critique of these governance models as "ideal types" and "theoretical constructs formed by the one-sided accentuation of empirically-observable features of social reality," Raco (2005, 324) contends that "contemporary development practices . . . are constituted by a hybridity of approaches

and rationalises that cannot be reduced to simple characterisations of rolled-out neoliberalism or sustainable development."

The hybridities framework engenders a grounded assessment of urban governance by recognising that neoliberalism's utopia of markets is comingled with a normative project to advance social and environmental imperatives. Put another way, it recognises that state planning can only ever be partially successful in its economic and political objectives because urban development is shaped by diverse rationalities and practices (Raco 2005, 332). This understanding of spatial governance is pertinent to the research because it provides an alternative explanation of how regional integration gives rise to geographically variegated institutional forms and regulatory regimes (e.g., Allmendinger 2016, Brenner et al. 2010, Peck and Tickell 2002a). If one accepts Raco's (2005, 329) argument that "development agendas have to be understood in the context of a variety of competing development rationales," then it necessarily follows that "the systematic production of variegated geoinstitutional differentiation" (Brenner et al. 2010, 195) and "the production of geographical difference under modern capitalism" (Brenner 2009, 28) result in part from local resistances to global hegemonic forces.

Raco (2006, 320) developed the hybridities framework to examine 'contradictions and tensions' in the development process caused by localised forms of institutional and political resistance to state planning. It draws attention to struggles that unfold as diverse actors pursue their strategic goals through planning. Hybridities thus exhibits an element of philosophical pragmatism that is well-adapted to understanding how state-significant projects like high-speed rail are shaped by forces that are both top-down and ground-up in nature. Theoretical perspectives from the political economy literature introduce a critical dimension that renders the framework sensitive to unequal power relations, while perspectives drawn from communicative planning theory introduce a normative dimension that opens the prospect of alternative rationalities and practices influencing the development process in positive ways. In Raco's (2005, 344) words, it gives "an approach that emphasises the hybridities that characterise actually existing policies [and] provides the discursive and intellectual space to develop alternative and broader ranging conceptions of development processes and practices."

Raco (2005, 343) conceptualises state planning as a spatio-political process, in that "embedding policy proposals in specific places provides opportunities for a range of existing actors, from community groups to local authorities, to influence the implementation and evolution of actually existing policy agendas." Accordingly, the hybridities framework offers two compelling prospects for the research. On one hand, it

can elicit an objective account of how regional integration unfolds through high-speed rail planning. The opportunity here is to foreground the strategies and structures that regional actors use to influence project planning and to understand how these reshape regional institutions. The hybridities framework can also elicit a search for existing and emergent institutional forms that promote a regionally integrated approach to high-speed rail planning. The opportunity here is to understand how struggles inherent to the integration process give rise to new institutional and political capabilities that advance the planning goals of regional communities. In framing both opportunities, the author anticipates the development process will yield both authoritative and liberating moments as regional actors work within the dominant neoliberal paradigm. As Raco explains:

> Devolution also enables regional actors to establish strategies and programmes that are 'in touch' with regional needs and priorities . . . regional strategies could reflect this and provide the basis for new regionally organised neo-corporatist relationships to be established between employers, workers and the state. (Raco 2006, 322)

Additionally, hybridities supplies a level of conceptual flexibility that makes it possible to bring high-speed rail planning and regional governance into the same analytical frame. The two topics are often treated separately in academic and public policy debates in Australia, but directions taken from the review of international planning literatures suggest they are connected by economic and political processes that are geographic in nature (see Chapter 2). The hybridities framework can be used to explore the spatial geographies of high-speed rail planning and regional governance in Australia by connecting their constitutive rationalities and practices. Analyses of the formal and informal structures that govern both projects can supply a window onto the development process by illuminating tensions between actors from different government jurisdictions (Commonwealth, State/Territory and Local governments in Australia) social sectors (public, private and community) and regional geographies (metropolitan and non-metropolitan). This approach frames high-speed rail planning in Hume as a negotiated space where the political choices, compromises and conflicts that animate state planning orient the empirical work. As Raco observes:

> one of the central rationales for devolution is to change ways of thinking about the types of problems that exist and how they can be addressed . . . it seeks to create new ways of seeing the world and acts as a strategy for making regions

> and regional actors both the subjects and objects of policy . . . Regional empowerment is itself a power relation that has paradoxically recentralised control at the same time as it has promoted new forms of territorial freedom. (Raco 2006, 320-21)

Analysing political conflicts in development processes gives one approach to understanding the relationship between high-speed rail planning and regional governance. Raco's deference to scale in processes of social reproduction gives another approach that applies to the research. Pioneering critiques of scale by Sallie Marston (2000), Neil Smith (1984) and Erik Swyngedouw (2000) are not explicitly citied by Raco in relation to the hybridities framework, but they do loom large in its theoretical provenance. As Mark Purcell (2006, 1927) points out when exploring the work of Neil Smith (1992, 1993), "the particular qualities of a given scale, such as its extent, its function or its relationships to other scales, are not eternal or ontologically given . . . they are contingent: they will result from particular struggles among particular actors in particular times and places." The hybridities framework can foreground scale in the empirical work by drawing attention to the ways in which institutional geographies are 'fixed' through political struggles. Conversely, understanding how planning and policy scales are constructed can supply insights into the political dimensions of regional integration and, specifically, how spatial governance is transformed to reify or recast existing geographic and institutional structures. As Patsy Healey explains:

> Integration is a relational word. It implies some kind of synergetic linkage and interconnection. It can only be understood in terms of what is to be linked and merged . . . But a momentum for 'integration' does not merely generate a co-ordinating force. It also creates new divisions, as linkage in one direction closes off opportunities for linkage in another direction. The result could be that while old boundaries are broken down to create new, rich and intertwined connectivities, new boundaries and divisions are created. (Healey 2006b, 68)

Healey's portrait of regional integration as 'rich and intertwined connectivities' highlights obvious challenges for the empirical work. Foremost will be important to keep a sense of conceptual order when analysing complex social structures that cross-cut geographies, scales and sectors. Raco responds to this methodological challenge by examining the integration process through a social constructionist lens. Conventional models of governance derived from state-theoretic perspectives (e.g., hierarchical

governance) and communicative planning theory (e.g., networked governance) are sufficient to describe the everyday governance practices that animate spatial planning; however, in isolation they are insufficient to explain the "strong linkages" between the formal and informal spaces of planning that animate contemporary development (Allmendinger and Haughton 2009, 632). Raco (2006, 324-6) enlists Foucault's concept of 'governmentality' to understand how linkages between formal and informal institutional structures 'fix' geographies of governance and 'steer' regional actors towards the goals of the state. For Raco, a Foucauldian lens can help analyses to extend further,

> beyond the new regionalist focus on place-space congruence and the relationist emphasis on flows and connections to examine how and why governments establish programmes of action and how regional identities can be created through the 'fixing' of boundaries of action and the empowerment of (directed) subjects. (Raco 2006, 325)

The divergent governance models advanced by exponents of the new regionalist and relationist perspectives supply the conceptual scaffolding for hybridities, but Raco applies a Foucauldian lens to foreground the rationalities and practices that central governments use to relate disparate social structures and direct self-governing actors. Hybridities engenders a critical perspective on governance innovations like 'place-based planning' and 'consensus-finding' because it highlights how political rationalities, planning discourses and governance practices cultivate "new regional subjectivities in and through which central government agendas will be implemented in more effective ways by 'empowered' regional actors" (Raco 2006, 326). For Raco (2006, 325), a Foucauldian lens foregrounds "the processes in and through which subjects are created and the role that identities and cultural attachments, including those to places and regions, have in shaping subjectivities." It follows that regional empowerment is part of an embedding process whereby central governments empower regional actors to facilitate state-significant projects and national policy reforms:

> the broader process is underpinned by a rationality of circumscribed empowerment and an attempt to create new regional subjectivities in and through which central government agendas will be implemented in more effective ways by 'empowered' regional actors. (Raco 2006, 325-26)

The rationalities and discourses of state planning occupy a privileged position in Raco's hybridities framework because they delimit the geographic and political boundaries of regional actors. Put another way, they work in concert with formal and informal governance structures to fix the geographic and institutional parameters of projects and steer actors towards the strategic objectives of the state. However, when articulating the value of a governmentalist approach, Raco and Imrie (2000, 2189) eschew urban theories that characterise the state "as a unified and determinate actor" because, in their view, "political power is developed and implemented through a multitude of agencies and mechanisms not necessarily reducible to the state." This is an important distinction to note because planning studies that adopt neoliberal spatial governance as an interrogative frame tend to ascribe a higher degree of agency to the state. Haughton et al. (2013, 219), for example, contend that spatial governance "always [needs] to be seen as co-constituted in pursuit of particular state strategies." By contrast, Raco and Imrie (2000, 2190) argue that a Foucauldian perspective "draws attention to the mentalities of government, or governmentalities in which the state is no more than a specific form of government."

The conceptual framework developed for this research subscribes to Raco and Imrie's (2000, 2190) diffuse conception of the state. However, it draws instead from theories of 'metagovernance' to explore the rationalities and discourses of high-speed rail planning instead of Foucault's concept of governmentality. The reason for this is twofold. First, as Raco (2003, 75) openly admits, governmentality is more closed to "a dialectical process of definition and contestation than is often apparent in existing Foucault-inspired writing." Although governmentality is adopted in critiques of large infrastructure projects in Australia (e.g., Sturup 2010, 2009) and abroad (e.g., Audikana and Chen 2016, Durrant 2016), it does not serve the purpose of this study because it foregrounds rationalities and discourses that are more top-down than ground-up in nature. Second, metagovernance shares a theoretical provenance with the political economy and urban studies literatures that informed other aspects of the conceptual framework. In response to Raco and Imrie's (2000, 2189) cautionary note about the limitations of "unified and determinate" conceptions of the state, the perspectives on metagovernance reviewed in the next section are chosen for their potential to illuminate the contingent and politically contested terrains of infrastructure planning and regional governance.

3.5. Metagovernance: the governance of governance

The nomenclature metagovernance ascribes this concept of governance with an esoteric air, but it is highly relevant to any investigation of large infrastructure because it can highlight how the state manages conflicts between different planning actors. Bob Jessop (2004a, 22) understands metagovernance as the "governance of governance," which is to say the range of strategies that central governments use to "shape the rules of the game and likely outcomes for different participants in governance arrangements." Metagovernance is the overarching norms, regimes and structures that regulate social life and set the 'context' for urban governance. Consequently, studies of metagovernance tend to foreground the wider social and political influences that shape state planning. For Jessop (1999, 13), the state plays "a major and increasing role in metagovernance" which involves, among other activities: establishing "regulatory order" to promote the aims of privileged stakeholder groups, acting as the "primary organizer" for public policy dialogues, setting "cognitive expectations" by managing information flows and serving as the "court of appeal" for governance infractions and disputes. These strategies bring order and coherence to the complex assemblage of actors involved in large projects.

Jessop's understanding of metagovernance usefully highlights connections between the geographic and institutional dimensions of spatial governance, but, in contrast to Raco and Imrie's (2000) diffuse conception of the state, he imbues central governments with plenary power over the context for governance. By contrast, finer-grained studies of metagovernance suggest the state can play a more-or-less prominent role. Mandy Lau (2014), for example, observes that central governments use a combination of "hands-on" and "hands-off" strategies to embed policies and projects into regions. The concept of metagovernance, Lau (2014, 633) suggests, can "problematise . . . narratives of planning reform, which tend to portray planning systems as shifting between top-down centralisation to decentralisation", because the efficacy of government policies and plans relies upon the capability and willpower of local actors. Additionally, Lau finds that existing problems with hierarchic and networked institutional structures can hinder the efficacy of metagovernance strategies. For example, weak regional institutions can stymie the implementation of policies where strong coordination is required, and under-resourcing of projects can remove incentives for local actors to follow central government directives (Lau 2014, 630-31).

Studies by Lau begin to soften conceptions of metagovernance that frame the state as unified and determinate because they give examples of metagovernance failure. The

effectiveness of metagovernance strategies is not only contingent upon local factors, but also on a range of wider political factors that influence levels of collective commitment to policy reforms. In arriving at this understanding of metagovernance, it is important to note that Lau (2014) draws on a conceptual framework developed by Eva Sørensen (2006, 101) to describe "four distinct ways in which metagovernance may be exercised." Sørensen's framework is relevant to this research because it positions metagovernance as an everyday practice that is central to the effective operation of self-governing societies. For Sørensen (2006, 100), metagovernance is more about influence than control because it gives central governments "a way of enhancing coordinated governance in a fragmented political system based on a high degree of autonomy for a plurality of self-governing networks and institutions." Sørensen (2006, 101) insists that metagovernance is no "umbrella concept" detached from the operation of conventional governance models, but is instead a "central question" for the governance of liberal democracies.

Table 5. Four metagovernance strategies

Hands-off strategies	Hands-om strategies
Framing: shape the contexts (political, fiscal organisation) in which governance takes place; use laws, policies and judicial processes to define planning goals.	**Support and facilitation**: promote the activities of particular groups; facilitate processes where self-governing actors organise to solve shared planning problems.
Storytelling: construct social and political meaning; inform the identities of self-governing actors (as opposed to organisations).	**Direct participation**: the state contributes knowledge and resources to help self-governing actors find solutions to shared problems.

Note: metagovernance strategies adapted from Sørensen (2006) and Lau (2014).

Table 5 outlines the four metagovernance strategies that constitute Sørensen's conceptual framework. The strategies apply to the research because they constitute governance practices through which competing development visions play out. The first two strategies are 'framing' and 'storytelling'—both commonplace practices in strategic spatial planning. Framing influences self-governing actors by shaping the political, fiscal and organizational contexts within which governance takes place. It is hands-off because it does not influence actors directly but uses laws, policies and judicial processes to "define the overall political objectives . . . while leaving the concrete policy making and detailed financial priorities to self-governing actors" (Sørensen 2006, 101). Storytelling, on the other hand, influences self-governing actors "through the construction of social

and political meaning and identity" and is hands-off because it involves the "formation of the meanings and identities that constitute the self-governing actors" as opposed to social organization processes (Sørensen 2006, 101). The effects of the latter strategy are as tangible as the former because it facilitates self-governance by engendering social solidarity among groups:

> Through storytelling, it is possible to shape images of rational behavior through the construction of interests, images of friend-enemy relations, and visions of the past and possible futures for individuals and groups and for society at large. (Sørensen 2006, 101)

The other two strategies in Sørensen's (2006) framework are more hands-on. The least interventionist of the two involves the state giving 'support and facilitation' to projects to "promote activities performed by a specific group of self-governing actors" (Sørensen 2006, 102). In this strategy the state legitimises the activities and objectives of non-state actors without investing heavily in the policy formation process. The more interventionist of the two strategies is 'direct participation', where the state contributes knowledge and resources to help non-state actors find solutions to shared problems (Sørensen 2006, 102). Obviously, the line between metagovernance as 'direct participation' and more conventional governance models is blurred, but Sørensen (2006, 102) delineates between the two by requiring that central governments "give up any authoritative position and participate according to the specific self-constituted rules of the game." Power imbalances aside, this final metagovernance strategy is characterised by horizontality because, in principle, the state and non-state actors participate as equal partners in planning.

Sørensen's (2006) four metagovernance strategies and Lau's (2014) insights into metagovernance failure give alternative perspectives to the prevailing state-centric understandings of metagovernance. In contrast to theories that portray metagovernance as a hegemonic practice choreographed by the state, Sørensen and Lau illuminate a state made vulnerable by its dependency on subsidiary jurisdictions and non-state actors. In principle, metagovernance accommodates divergent rationalities and practices because it co-opts established social structures replete with their own political vulnerabilities and localised cultures of resistance. The decentred and networked geographies of power rendered by Sørensen and Lau's work resonate with Raco's (2005, 343) hybridities framework to the extent that "development agendas need to be embedded in broader processes of socialisation and the meeting of autonomous and contrasting political

demands." With these perspectives on spatial governance in mind, the review will conclude by reconsidering the three qualities of regionally integrated high-speed rail planning in a critical light.

3.6. Regionally integrated high-speed rail: a critical re-conception

The closing section of this chapter enlists Raco's hybridities framework to re-conceptualise the model of regionally integrated high-speed rail planning developed in Chapter 2. It will explore tensions and contradictions within each 'quality' of the model—spatially connected, institutionally integrated and politically aligned—considering the critical perspectives brought to bear by the spatial governance literature. Hybridities supplies scope to extend the governance concepts found in the high-speed rail literature by relating project planning and regional governance to each other and to wider processes of economic and political integration. In the first instance, governance concepts taken from the spatial planning and urban studies literatures will allow social structures to be analysed in granular detail. Instead of inferring the efficacy of different institutions and networks from analyses of planning strategies and regional policies, the research will be able to analyse the social structures directly. In the second instance, the hybridities framework will allow the research to highlight the rationalities and practices that open network planning to influence from regional actors. The opportunity here is to understand how high-speed rail planning is enmeshed in regional politics and ongoing struggles over the character and form of regional institutions.

3.6.1. Spatial connectivity and fixing regional geographies

Quality 1 relates to the level of 'spatial connectivity' obtained by a proposal. It stipulates that *high-speed rail stations must be integrated into settlement systems and able to promote balanced patterns of spatial growth by targeting accessibility improvements towards established communities*. These criteria highlight the need to mitigate adverse social, economic and environmental impacts by sensitively integrating high-speed rail technology into regional settlement systems. The problem is that high-speed rail development accelerates processes of uneven development in sparsely populated regions if improvements to spatial accessibility become strongly polarised towards densely populated urban regions. Even if network planners achieve strong connectivity between high-speed rail stations and regional cities, then some restructuring of local and regional transport networks is likely to be needed to promote access by public and active transport

modes. Crucially, high-speed rail can increase interlocal competition within a region by either entrenching established development nodes or introducing new nodes of development that restructure patterns of urban investment.

Critical understandings of regional integration from the spatial governance literature suggest that analysing network planning in a holistic sense can be more useful to the research than analysing the connectedness of individual stations to settlement systems. Analysing local connectivity can supply useful insights into the potential influence of high-speed rail on local urban dynamics, but understanding how different network planning strategies restructure regional connectivity and spatial accessibility at the regional and corridor levels is likely to provide richer insights into the form and character of regional integration being advanced by a proposal. This approach would also be consistent with Raco's critique of "the new regionalist focus on place-space congruence and the relationist emphasis on flows and connections" (Raco 2006, 325) because it registers the spatial ontologies of both governance models in the analysis. Moreover, reconceptualising the quality of spatial connectivity in this way could also help to relate the urban and regional effects of different planning strategies to the institutional geographies that underpin a proposal.

3.6.2. Institutional integration and cultivating regional subjectivities

Understanding how spatial planning strategies work to 'fix' geographies of project governance is directly related to Quality 2, which stipulates that *high-speed rail planning must be responsive to inputs from regional institutions and able to promote the development goals of communities by supporting the implementation of local planning initiatives*. The quality of 'institutional integration' upholds the normative idea that high-speed rail development is a social process, where the strategies formulated by network planners ought to be informed by the strategic goals and development needs of regional communities. As discussed in Chapter 2, one way to assess the quality of institutional integration is to perform a checkbox exercise that evaluates network planning strategies against the objectives of current regional policies and spatial plans. This approach may, however, overlook the influence of power asymmetries on spatial planning and how the strategic objectives of regional communities are structured around the economic and political imperatives of the Commonwealth and State and Territory governments. It is preferable to assess the institutional structures that constitute high-speed rail planning and regional governance separately to any assessment of the alignment or 'fit' of policies and plans across the local, state and national levels. The challenge for the analysis is to

understand whether and to what extent project governance structures grant regional actors influence over network planning. This understanding of institutional integration could illuminate relevant connections between different social structures, but the analysis would need to supply evidence that formal institutions or informal networks can be leveraged by regional actors to promote spatially connected planning solutions.

Raco's grasp of the wider social and political processes that condition infrastructure planning and regional institutions must inform any re-conceptualisation of Quality 2. Foremost, it will be imperative to understand how tensions between the state and powerful non-state actors are resolved through the design of new institutions and networks or the reconfiguration of existing ones. It will also be important to understand how the political rationalities and development discourses that frame high-speed rail planning cultivate new subjectivities among empowered regional actors. This could illuminate the relationship between different infrastructure planning strategies and regional governance reforms if national and regional institutions are found to be shifting concurrently. The opportunity here is to explore the in-between spaces of state planning that maintain neoliberalism's hegemony over urban space by mediating between different institutions to maintain power relations.

3.6.3. Political alignment and disrupting regional politics

Quality 3 outlines the kind of political consensus that would be needed to support regionally integrated high-speed rail planning. It stipulates that *high-speed rail planning must be 'politically aligned,' i.e., based on a settlement between Australian governments to support integrated planning solutions by devolving a degree of planning authority and fiscal resources to regional institutions*. Findings from the international case studies in Chapter 2 indicate the efficacy of multilevel institutions is a contributing factor to social, economic and environmental outcomes from high-speed rail development. The influence of institutional design on development outcomes in non-metropolitan regions is particularly acute in contexts where regional actors lack the capabilities and resources necessary to implement integrated planning solutions. Poor spatial planning outcomes ensue when the interests of the state and powerful non-state actors outweigh the interests of regional actors because asymmetries built into multilevel institutions skew the distribution of political power and public resources.

Raco's hybridities framework conceptualises the institutions of state planning as contingent and prone to shifts and disruptions as actors from different territorial levels, social sectors and regional geographies pursue their development goals though

infrastructure projects and policy reforms. Hybridities thus registers the way that spatial governance is animated by tensions between the state and powerful non-state actors and struggles by regional actors for economic and political autonomy. It is pertinent to note that Raco developed the hybridities framework to study the influence of political devolution on urban planning outcomes in Europe and the UK. The framework is adapted to studying the relationship between high-speed rail planning and regional governance in Australia because it draws attention to shifts in the formal and informal structures that govern both projects. These struggles are likely to manifest in more subtle ways in Australia because of the unequal nature of power relations between different levels of government and regional geographies and the growing influence of the corporate sector on spatial planning. Nonetheless, Quality 3 points towards the possibility that regionally integrated high-speed rail planning could emerge from new forms of regional politics.

(8,760 words)

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3. A search for "spatial governance" in Google Scholar in July 2020 returned two planning-related entries published in the 1980s and twenty-seven entries published in the 1990s. Many entries were from peer-reviewed journals although several entries were grey literature from university databases and non-government organisations.

Chapter 4. Research design

Chapter 4 details the research design including the case study approach, methodology, data collection methods and analytical techniques. The research design is structured to accommodate several unique features of the case of high-speed rail planning in Hume. First, a mixed-methods approach is used to examine the geographic and institutional dimensions of the case. Second, a single case approach is adopted to bring findings from the geographic and institutional analyses into the same analytical frame and to study the linkages between them. Third, a nested case design allowed the analysis to move strategically across different territorial levels, social sectors and regional geographies while maintaining the overall integrity of the case. The research design supplies a comprehensive justification for the single case approach and nested case design because these are novel methods of case research. This is preceded by a brief explanation of how spatial governance is operationalised as a conceptual framework in the research.

4.1. Applying a spatial governance perspective

Conceptualising high-speed rail planning as a form of spatial governance has significant implications for the research design because a degree of methodological flexibility will be required to relate the geographic and institutional dimensions of the case. The concept of spatial governance developed in the literature review frames the rationalities and practices of state planning as the institutional dimension of the case. To analyse these features requires the application of techniques that register shifts in the development discourses and administrative and political structures that govern high-speed rail planning in Australia and regional development in Hume. On the other hand, the geographic dimension of the case manifests through the configuration of social and political structures in space and the planning strategies that embed high-speed rail and government economic policies into Hume. To examine these features of the case will require the application of analytical techniques that register the scalar and relational geographies of planning actors and the potential urban and regional effects of different planning strategies and government policies.

Another implication of conceptualising high-speed rail planning as a form of spatial governance is that it will require the institutional analysis to navigate considerable multiscale complexity. Global and national institutional structures will feature prominently in the empirical work due to the power exercised by the state and national non-state actors over infrastructure planning in Australia (see Gleeson 2017, Haughton

and McManus 2012). Additionally, the analysis must register the 'ground up' structures that constitute Hume to imbue the research with a regional perspective on high-speed rail planning. Sensitivity to the relational qualities of spatial strategies and administrative and political structures will be needed to understand how the geographies of high-speed rail planning intersect with the geographies of regional governance in Hume. As Patsy Healey (2006b, 68) pointed out in the literature review, regional integration "can only be understood in terms of what is to be linked and merged . . . old boundaries are broken down to create new, rich and intertwined connectivities, new boundaries and divisions are created."

The hybridities framework foregrounds the rationalities and practices of state planning as the basis for understanding processes of regional integration. The underlying premise is that social processes used by central governments to embed large projects into places—high-speed rail into Hume in this case—can open state planning to influence from less-powerful planning actors such as local governments and community groups (see Raco 2005, 343). This conception of regional integration orients the research towards a deeper understanding of how the geographic and institutional parameters of the case shift as regional actors struggle against the instrumentalities of state planning to pursue their strategic goals and development needs. More conventional perspectives on urban governance conceptualise the formal and informal structures of spatial planning as operationally discrete and divergent in terms of their possibilities for political autonomy and community development. By contrast, Raco (2006, 326) contends that large project planning can give rise to new geographies of governance that exhibit both liberating moments—when select regional actors are 'empowered' by the state to facilitate development processes—and authoritative moments—when their power is 'circumscribed' by the state.

It follows that a principal objective of the institutional analysis is to illuminate "actually existing development practices" that open state planning to the influence of regional actors (Raco 2005, 325). This will require the analysis to develop an understating of how the geographies of high-speed rail planning are forged through political struggles that cross-cut geographies, scales and sectors. As Purcell (2006, 1928) points out, shifts in the discursive frameworks and institutional structures that govern state planning denote a 'politics of scale' where the agency of actors "[depends] on the particular agendas that are empowered by the scalar arrangement." The scale of any project proposal, government policy or strategic plan is not "ontologically given" but rather "contingent" in the sense that its scale "will result from particular struggles among particular actors in

particular times and places" (Purcell 2006, 1927). Therefore, it will be important to understand how the formal and informal spaces of state planning interact through the case, and how these interactions expand or delimit the influence and autonomy of planning actors in Hume.

It follows that a spatial governance perspective on high-speed rail planning must train the analysis on the in-between spaces of governance where, as Allmendinger and Haughton (2009, 632) point out, "the real work of planning takes place outside of the formal system of planning, but necessarily with strong linkages to it." Centring the intermediate spaces of planning in the analysis also invites critical appraisal of the "political choices" made by empowered regional actors (Raco 2006, 320). If high-speed rail planning gives rise to new development opportunities and institutional and political capabilities, then to what ends are these benefits put by the empowered regional actors? Do the institutions and structures that emerge from the integration process promote the strategic goals and development needs of regional communities or do they serve narrower political or sectional interests? A clear-eyed understanding of the implications of high-speed rail planning for spatial governance in Hume would not be possible without consideration of these questions.

Like the institutional analysis, the geographic analysis must entail both a normative and a critical aspect. The normative aspect involves the application of qualitative and quantitative techniques to analyse the levels of spatial connectivity obtained by each high-speed rail proposal. Chapter 2 found a relationship between the effectiveness of regional institutions and the quality of planning outcomes in non-metropolitan regions—the three qualities of regionally integrated high-speed rail embody this relationship. In addition to a set of institutional and political capabilities needed to pursue integrated planning proposals, the qualities identify spatial planning criteria to assess the relative merits of different network planning strategies. Qualitative techniques will be used to analyse the levels of connectivity between high-speed rail stations and regional settlement systems while quantitative techniques will be used to understand the regional geographies and planning scales privileged by each proposal.

The critical aspect of the geographic analysis will enlist insights from the spatial governance literature to understand the relationship between large infrastructure development and sociospatial restructuring. Quantitative techniques of accessibility analysis will be used to illuminate the influence of different network planning strategies on the distribution of development benefits in Hume and surrounding regions. The relationship between spatial accessibility and uneven development is well-established in

both the high-speed rail planning and urban studies literatures. Observations of "tunnel effects" (Gutiérrez et al. 1996) and "spatial polarisation" (Ortega, López and Monzón 2012) in the high-speed rail literature relate directly to critiques of "capitalism's insatiable drive to resolve its inner crisis tendencies by geographical expansion and geographical restructuring" (Harvey 2001, 24). The urban studies literature also relates uneven spatial development to social processes that produce geographically variegated institutional forms (see Brenner et al. 2010). Therefore, a combination of qualitative and quantitative analytical techniques will be used to understand how high-speed rail development could increase interlocal competition—a characteristic feature of neoliberal spatial governance—and sustain the conditions for uneven spatial development in Hume.

4.2. Single case approach

The research adopts a single case approach to study the relationship between high-speed rail planning and regional governance in Hume. In general terms, a case study is "an intensive study of a single unit for the purpose of understanding a larger class of (similar) units . . . observed at a single point in time or over some delimited period of time" (Gerring 2004, 342). The method is applicable to this research because, as Robert Yin (1994, 4) points out, "the distinctive need for case study research arises out of the desire to understand complex social phenomena . . . a case study allows investigators to focus on a 'case' and retain a holistic and real-world perspective." Yin (1994, 16) also says that case studies are applicable when the "boundaries between the phenomenon and context may not be clearly evident", as is the case with high-speed rail planning in Hume. In difficult to define cases like this, Tony Elgar (2010, 57) argues that a critical appraisal of 'common-sense' conceptions of the case can produce new understandings of its spatial and temporal boundaries.

This section gives an extended justification for adopting the single case approach because it is an unconventional method of case study research. In conventional 'cross-case' research, two or more typical examples are studied to learn something new about a broader set of cases that have shared characteristics (see Gerring 2006). This research instead studies one example—high-speed rail planning in Hume—to learn something new about a set of relationships 'within' that case. It is important to note the distinction between a cross-case and within-case analysis because they have significant implications for research design and the interpretation of research findings. As John Gerring (2007, 231) points out, "the idea of any single case playing a crucial (or critical) role is not widely accepted among methodologists" because findings from a study of one example are not

sufficient to prove or disprove a general theory when studies of other examples do not exist. Single case studies, or what Gerring (2006, 710) calls 'single-outcome' studies, "investigate a bounded unit in an attempt to elucidate a single outcome occurring within that unit." The method can be used to build foundations for an extended body of work to be developed through studies of additional examples (Gerring 2007, 249).

To discern the methodological implications of the single case approach, it is useful to situate the cross-case and within-case types within their respective social scientific traditions: the Anglo-American and the Continental traditions. 'Case study' in the English language "usually connotes a study whose analytic objective is larger than the case under intensive research", however, in the French language it translates to "the study of a particular phenomenon, which may or may not reproduce features of a larger population" (Gerring 2006, 707-8). That different perspectives on case research are culturally informed is a salient point given the national context of this study. In the Anglo-American tradition, 'case study' denotes a 'nomothetic' mode of research that is oriented towards the discovery of general scientific rules, but in the Continental tradition it can also denote a mode of 'idiographic' research that scrutinises beliefs, events and practices in detail to advance knowledge. The single case approach draws on the Continental tradition to give a "thick description" of social phenomenon akin to that afforded by ethnographic methods where the researcher explores "a multiplicity of conceptual structures, many of them superimposed upon or knotted into one another . . . and which he must contrive somehow first to grasp and then to render" (Geertz 1973, 9-10).

Another difference between the extensive and intensive case methods that is relevant to this study is how context is regarded in the empirical work. Intensive case research affords a level of granularity in social analyses that is useful in studies of large infrastructure projects where nuanced social and political factors can influence planning outcomes in profound ways. Flyvbjerg (2006, 221), an advocate for the single-case approach and prominent scholar of large infrastructure development, contends that case research "produces the type of context-dependent knowledge that research on learning shows to be necessary to allow [professionals and academics] to develop from rule-based beginners to virtuoso experts." According to this view, careful consideration of context in the analysis can yield rich understandings of the social phenomenon in question—understandings that are less likely to overlook crucial local factors. This is because nomothetic research methods privilege 'context-independent knowledge' as the basis for generalising research findings and advancing understanding of social phenomena while idiographic methods privilege 'context-dependent knowledge' that, Flyvbjerg (2006,

222) argues, situates lived experience "at the very heart of expert activity." Meaningful critique of large infrastructure thus proceeds from context-dependent knowledge of the values and interests that govern projects (see Flyvbjerg 2004, 287).

4.2.1. Case selection strategy

As Flyvbjerg attests, single-case studies expand general knowledge by supplying rich insights into one example of a social phenomenon. However, the ability to generalise the findings of a single case study depends upon the strategies used to select the case. The strategies used to select examples for intensive case studies are different to the strategies used in extensive studies because the objectives and methods of both study types differ in fundamental ways. In extensive studies, where the objective is to test a general theory, the case selection strategy will typically privilege examples within a large population of cases that are likely to disprove that theory (Bleijenbergh 2010, 62). By contrast, intensive studies are useful in the early stages of 'theory-building' where two or more candidate theories are tested for their potential to explain a social phenomenon (Eckstein 2000, 119). The researcher will follow an inductive process where observations of a specific case aid in the development of hypotheses to be tested in future research. Accordingly, the goal of case selection is to privilege examples that allow the researcher to "identify the specific conditions and characteristics of a phenomenon that has been characterized in only general terms" (Bleijenbergh 2010, 61).

The open and flexible structure of an intensive case study does not discount the need for a carefully considered case selection strategy. Any case study ought to be underpinned by a rigorous case selection strategy because of the small sample size that is used compared to other research methods, but the level of rigour must be increased for intensive case studies with a sample size of one (see Bleijenbergh 2010, 61). The challenge for the researcher is to reconcile the desire for richness and granularity in the research data with the need for conceptual clarity and analytical rigor across the entire study. "When the objective is to achieve the greatest possible amount of information on a given problem or phenomenon," Flyvbjerg (2006, 229) contends that, "a representative case or a random sample may not be the most appropriate strategy . . . because the typical or average case is often not the richest in information." Intensive single-outcome studies provide more scope than extensive studies to pursue these objectives. However, as Gerring (2007, 249) cautions, if falsification in one example is sufficient to prove or disprove a theory then one should seriously ask whether "the argument is anodyne enough to obviate the collection of additional evidence."

To avoid this methodological pitfall, the case selection strategy for single-outcome studies should have regard to the purpose of the research and the nature of the questions posed. Explicating these elements of the research project can also clarify the role of theory at each stage of the empirical work—from the case selection process to the within case analyses and presentation of the research findings. If the research questions are explanatory in nature, as is the case in this study, then Bleijenbergh (2010) contends that theoretically-informed case selection strategies can assist the researcher to generalise from empirical observations and test the explanatory potential of one or more theories. For example, a preliminary test of one theory can indicate its potential to be extended, or whether two or more competing theories might be required to explain the phenomena in question (Bleijenbergh 2010, 62). Regardless of which approach is chosen, theoretically informed case selection strategies safeguard against banal exercises in theory-building by embedding critique into the early stages of the research.

The generalisability of the research findings can be strengthened if the case selection strategy leverages the full utility of the single case approach. Intensive case studies are well-suited to research that aims to inform practice because the research data is detailed and context-dependent (Eckstein 2000, 121). The orientation of Flyvbjerg's (2004, 2006) work towards 'praxis' exemplifies this approach. Notable, too, is how recent case studies from the spatial governance literature have focused on the connection between urban theory and planning practice (see Schmitt and Danielzyk 2018, Shevah 2017). The utility of the single case approach is derived from the opportunity to learn something about a social phenomenon that would not be possible using a conventional cross-case approach. In principle, the single case approach combines fine-grained social analyses, a considered treatment of context and theoretically informed case selection strategies to produce richer understandings of policy problems:

> from both an understanding-oriented and an action-oriented perspective, it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur. (Flyvbjerg 2006, 229).

4.2.2. Nested case design

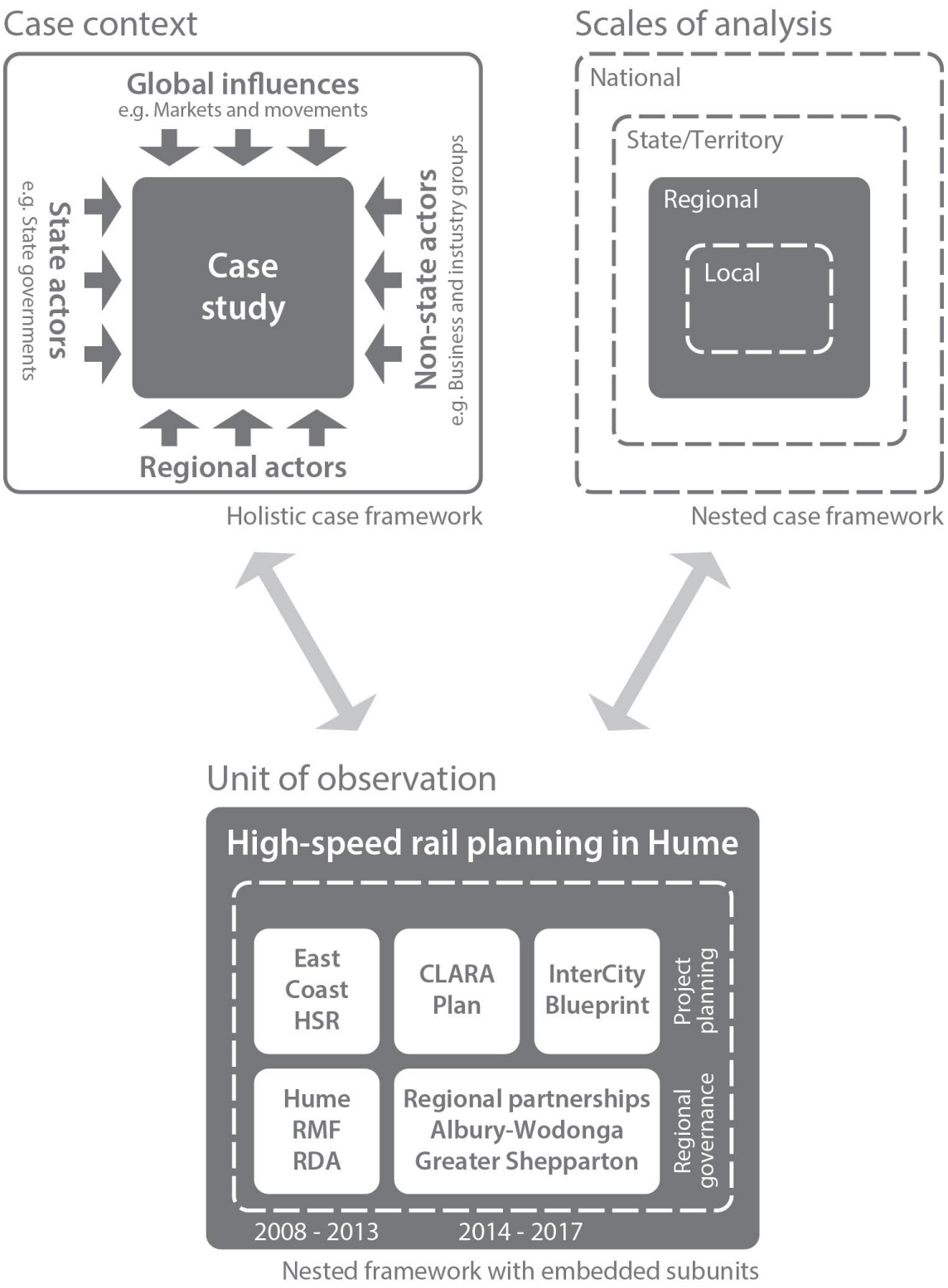
A 'nested case design' will allow the analysis to move strategically across different territorial levels, social sectors and regional geographies. The particular design developed for this research is adapted from Yin's (2009) 'holistic' and 'embedded' case frameworks

and from Thomas Haase's (2009) 'nested' case framework. The first two frameworks are generally applicable to intensive case studies while the third framework has specific applications to this research because it was developed by Hasse to study multilevel institutional structures. Each design approach has strengths and weaknesses that are important to note given the nature of high-speed rail planning in Hume. Figure 7 maps the structure of each framework and how they transpose to the analysis of high-speed rail planning in Hume. At a conceptual level, a holistic case design provides the simplest structure for intensive case research because a single unit of analysis is used "to examine only the global nature of an organization or a program" (Yin 2009, 50). This flexible structure can be advantageous at the outset of an investigation when it is not clear what 'subunits' of the case should be analysed or when theoretical speculation is the principal objective of the research. However, the validity of the research findings can be diminished if there is insufficient "operational detail" in the research data (Yin 2009, 50).

An embedded case design can allay these methodological concerns by inserting two or more subunits into the case, which "adds significant opportunities for extensive analysis [and] enhancing the insights into the single case" (Yin 2009, 52). The embedded case structure is directly applicable to this investigation where each high-speed rail proposal will be treated as one subunit of the case and local jurisdictions connected to the network will be treated as other subunits. Yin (2009, 53) cautions, however, against investing too heavily in the analysis of subunits because "if too much attention is given to these subunits, and if the larger, holistic aspects of the case begins to be ignored, the case study itself will have shifted in its orientation and changed its nature." The research design for this study retains elements of Yin's holistic case framework to guard against this methodological pitfall.

Finally, Haase (2009) developed the nested case design to address two additional issues that can arise from intensive studies of multilevel institutional structures. These issues stem from the way the holistic and embedded case design frameworks can restrict the scope of the analyses and the validity of the research findings if the case or its constitutive subunits are too tightly bound. Haase's (2009, 45) nested case design provides "researchers with a conceptual framework that enables them to move up, down or across [the case] without shifting the unit of analysis or the unit of observation." It treats the subunits of analysis "as non-distinct and mutually supporting entities . . . an enclosed system that is comprised of a series of concentric domains" (Haase 2009, 44). This structure is well-suited to the study of high-speed rail planning in Hume where the

Figure 7. Nested case design



Note: the case design is adapted from Yin's (2009) 'holistic' and 'embedded' case frameworks and Thomas Haase's (2009) 'nested' case framework.

subunits of analysis, such as different government levels, are organised hierarchically and differently scaled. It will also help the analysis to draw connections between the geographic and the institutional dimensions of the case because the subunits are organised according to scale.

4.3. Methodology

The research adopts a mixed-methods approach comprised of qualitative techniques of social analysis and quantitative and qualitative techniques of spatial analysis. This novel combination of methods is informed by a belief that "[good] social science is problem driven and not methodology driven in the sense that it employs those methods that for a given problematic, best help answer the research questions at hand" (Flyvbjerg 2006, 242). The practical problem of integrating high-speed rail development into non-metropolitan regions has a strong geographic dimension as well as a strong institutional dimension. The methodology separates out the two dimensions of the case to allow a systematic analysis of each (see Table 6). The first part of the empirical work uses geographic analysis to understand how urban space would be restructured after the introduction of high-speed rail. The second part uses social analysis to understand how different approaches to high-speed rail planning interact with regional governance in Hume. The final part of the research synthesises findings from the geographic and institutional analyses to understand the relationship between high-speed rail planning and processes of regional integration in Hume. This takes place in the discussion chapter.

The first part of the empirical work in Chapter 6 addresses the second research question: to what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume? (RQ2). The techniques of geographic analysis used in this chapter are detailed in Section 4.5. In summary, qualitative techniques of planning analysis are used to identify the current trajectories of urban spatial restructuring in Hume, while quantitative techniques of spatial analysis are used to understand how different network planning strategies would be likely to influence these trajectories. This part of the empirical work is normative in its orientation as the findings are used to understand whether recent high-speed rail proposals exhibit the first quality of regionally integrated planning—spatial connectedness. However, there is a critical aspect to this part of the research because the quantitative techniques of spatial analysis can begin to illuminate the character and form of regional integration advanced by each high-speed rail proposal.

Table 6. Research questions and methods

Part	Research questions	Empirical chapters	Methods	Review chapters
A	RQ2 – To what extent and in what ways do recent high-speed rail proposals in Australia constitute an integrated approach to spatial planning in Hume?	Chapter 6	Geographic analysis of regional policies and plans and changes to spatial accessibility introduced by high-speed rail.	Chapter 2
B	RQ3 – What rationalities and discourses informed high-speed rail planning in Australia between 2008 and 2017? and RQ4 – In this time, how was the governance of high-speed rail planning enacted at the national and regional levels?	Chapter 7 Chapter 8 Chapter 9	Discursive analysis of policy statements, media reports and interviews with research participants, and Institutional analysis of high-speed rail proposals, government policies and plans.	Chapter 3
C	RQ1 – How is high-speed rail planning in Australia connected to processes of regional integration in Hume?	Chapter 10	Synthesis of findings from the geographic analysis and institutional analysis using the spatial governance framework.	Chapter 2 Chapter 3

Note: the term 'three parts' (A, B and C) is used here to explain the structure of the methodology but is not referred to in the reminder of the thesis.

The second part of the research is more obviously critical in its orientation because it is where the planning discourses and institutional structures that underpin high-speed rail planning in Hume are analysed. Section 4.6. details the techniques of social analysis used in the empirical work to address two separate but interrelated research questions: what rationalities and discourses informed high-speed rail planning in Australia between 2008 and 2017? (RQ3) and, in this time, how was the governance of high-speed rail planning enacted at the national and regional levels? (RQ4). Each chapter will analyse a different high-speed rail proposal:

- Chapter 7 will analyse East Coast HSR, a government-led proposal for an interstate high-speed rail network that was prepared under the authority of a centre-left Labor government between 2010 and 2013,
- Chapter 8 will analyse the market-led CLARA Plan, another interstate proposal that was launched by CLARA in 2016 and developed with financial support from a centre-right Coalition government, and

- Chapter 9 will analyse the InterCity Blueprint, a state-based proposal for high-speed rail in Victoria that was prepared by the Rail Futures Institute (RFI) and launched in 2016.

Chapter 10 synthesises findings from the preceding chapters to address the principal research question: how is high-speed rail planning in Australia connected to processes of regional integration in Hume? (RQ1) This final part of the research enlists the conceptual framework developed in Chapters 2 and 3 to discern the relationship between recent episodes of high-speed rail planning and ongoing processes of sociospatial restructuring in Hume. It combines the normative and critical aspects of the research to address the principal research question. The normative aspect identifies moments in the planning processes where tensions between actors from different regional geographies, territorial levels and social sectors are resolved in ways that promote a regionally integrated approach to high-speed rail planning. The critical aspect, on the other hand, identifies tensions and contradictions in the planning processes that stand to entrench processes of uneven spatial development and perpetuate the neoliberal urban project in Hume.

Finally, the purpose of the case description and its situation within the overall thesis structure warrants a brief discussion in this section on research methodology. Typically, the case description in a conventional cross-case study is narrowly scoped and treated separately to the empirical work. This approach to case design is intended to promote generalisability of the research findings, but it can also reduce the influence of contextual factors on the empirical work and on the interpretation of the research findings. In a single-case study, the desire for empirical granularity and contextual specificity are served by an extended case description, which is integral to the empirical work. To foreground contextual factors in this study, the case description (Chapter 5) is situated between this chapter on research design (Chapter 4) and the first chapter of empirical research, which is the geographic analysis (Chapter 6). Chapter 1 supplied a brief case description, however, the purpose of the extended case description is to situate findings from the empirical chapters within the historical, geographic and political contexts of Hume. This chapter structure and case description format respond to Yin's (2009, 50) contention that "[single-case] designs . . . require careful investigation of the potential case to minimize the chances of misrepresentation and to maximize the access needed to collect the case study evidence."

4.4. Data collection methods

This section details the types of quantitative and qualitative data analysed in the research and the methods used to collect it. The discussion is limited to how the data was collected from primary sources including research participants and from archival sources such as university databases, government websites and media outlets. It is important to note that archival sources such as newspaper articles and government policy statements are used to address gaps in the primary source data. Also, secondary sources that supply context to the research are not discussed in this section on data collection methods. This includes analyses and reports authored by non-state actors (e.g., planning experts and non-government organisations) and spatial data used in maps and charts to inform discussion of the research findings. In these instances, the data sources are cited in the relevant figures and tables.

4.4.1. Census and spatial data

The geographic analysis used demographic and spatial data produced by the Australian Bureau of Statistics (ABS) and other Commonwealth and State and Territory government organisations. This data was acquired online either directly from the source, from a government open data platform (e.g., DataVic or DELWP) or from the Australian Urban Research Infrastructure Network (AURIN). Table 7 details the different types and sources of data used in the geographic analysis.

4.4.2. Proposals, policies and plans

The next type of data used in the research pertained to high-speed rail planning and regional governance in Hume. These data comprised of archival materials including:

- Reports and other materials produced by the project proponents including planning studies, webpages, media releases, etc.,
- Reports published by non-government organisations and advocacy groups,
- Acts of parliaments and parliamentary bills that did not pass into legislation,
- Government policies and strategic plans, and
- Submissions to parliamentary inquiries.

Only documents prepared or published during the period of this study—2008 to 2017—are analysed in the research. Each document was downloaded from the official

Table 7. Spatial data used in the geographic analysis

Data source	Data type
Australian Bureau of Statistics (ABS)	– Digital boundaries for States (STEs) and Urban Centres and Localities (UCLs) 2016 – Digital boundaries for States (STEs) 2016 – Census population counts (usual resident population) 2016 – Socio-Economic Indexes for Areas (SEIFA) 2016
Department of Environment, Land, Water and Planning (DELWP) Victoria	– VicMap planning zones 2016
Department of Planning, Industry and Environment (DPIE) NSW	– Land use zones 2016
Earth Science Research Institute (ESRI)	– Terrain base map
Public Sector Mapping Agency (PSMA)	– Airports 2016* – Hydrology 2016* – Roadways 2016* – Railways 2016* – Railway stations 2016*
Regional Development Australia (RDA)	– Digital boundary for the Hume RDA Committee

Note: Asterisk (*) indicates data acquired under licence from AURIN.

website of the author or sponsor organisation and URL links and access dates are recorded in the reference list. All documents are listed in two tables that can be found in Appendix 2 and Appendix 3. The tables are divided chronologically by a change in power at the federal level that precipitated a change in Commonwealth government policy on high-speed rail in 2014. Appendix 2 lists twenty-nine documents relevant to East Coast HSR and to strategic spatial planning in Hume. Given the status of East Coast HSR as a government-led proposal, the list of documents is dominated by publications from government agencies and departments and non-government organisations with strong linkages to the Commonwealth government. The documents are categorised in descending order by government level—Commonwealth, State and Local—and listed chronologically to capture the evolution of network planning and regional policy ideas. Appendix 3 lists twenty-five documents that are relevant to the market-led CLARA Plan and hybrid InterCity Blueprint. This table is populated by a greater number of documents published by non-government organisations.

A preliminary analysis of the documents informed the case description in Chapter 5 by giving insights into the policy context for high-speed rail planning in Hume. This work aided in the identification of potential research participants and informed

development of the interview questions. Several documents were analysed in greater detail using the techniques described in Section 4.6. These documents included, but were not limited to, studies and reports describing recent high-speed rail proposals and government policies and plans outlining current development initiatives in Hume.

4.4.3. Semi-structured interviews

Interviews with research participants are the principal mode of direct observation in this study. The institutional analysis relied heavily on data obtained during the interviews, but this data also supplied insights that were relevant to the case description (Chapter 5) and geographic analysis (Chapter 6). A semi-structured interview format was chosen for its potential to fulfil the explanatory objectives of the study. As Mats Alvesson (2011, 152) has observed, semi-structured interviews engender a "reflexive" approach to data collection and analysis by accommodating "a problematizing attitude and a willingness to engage with theoretically informed interpretations about the interview situation and the various 'logics' behind interview statements." The format had two additional advantages that made it well-suited to this study. First, semi-structured interviews can accommodate the "loose" exploratory structure of ideographic modes of research like single case studies (see Alvesson 2011, 52). Second, the format allowed the interview questions to evolve throughout the field research as subthemes emerged that were better able to explain the research problem.

Table 8 details the themes and question sets that gave structure to the interviews. Each theme is theoretically informed to engender continuity across different elements of the research, from the conceptual framework developed in the literature review (Chapters 2 and 3) to findings from the empirical work (Chapters 6 to 9). The themes and questions sets are structured to encourage research participants to explore the geographies of high-speed rail planning from their own perspective. Individual questions focus the discussion on variables relevant to the research while ensuring that "considerable space is provided for interviewees to bring up what they see as relevant and for deeper exploration" (Alvesson 2011, 53). The conversational style of the semi-structured interview also made it possible to guard against confirmation bias by exploring and testing personal interpretations of phenomena and events (see Boyatzis 1998, 29; 34).

The final questions used in each interview were customised to explore the special interests, professional knowledge or lived experiences of the research participant. Background analysis of newspaper articles, press releases and other online sources communicating the views of individual participants allowed the interview questions to be

developed in more targeted ways. This was especially relevant to participants in leadership positions including Members of Parliament (MPs) at the Commonwealth and State government levels, the proponents of the high-speed rail proposals and some Local government officials. Questions for some participants were highly customised to collect detailed information about the case such as key social and political considerations and historical events that influenced decision making. Questions posed to representatives of local and regional groups followed the scripted questions more closely, but with some minor adjustments or questions added to explore potential interactions between high-speed rail planning and local strategic initiatives.

Table 8. Semi-structured interview themes and questions

Themes	Question sets
1. Rationalities and discourses:	– What are the current strategic priorities of your organisation? What initiatives are you focused on? – Where does high-speed rail sit in the order of transport investment priorities for your community, and why? – How might high-speed rail help your community to achieve its planning goals? What are the opportunities?
2. Planning and development visions:	– Your area has become a hotspot for high-speed rail planning. How familiar are you with recent proposals? – Does your organisation support one approach to high-speed rail planning over another? If yes, why? – Has your organisation been consulted about one or another proposal? Do you feel you can influence the plans?
3. Governance strategies and practices:	– What does your organisation do to influence the planning of large-scale projects? What role does it play? – What organisations do you work with to advocate for better planning outcomes from strategic initiatives? – In your opinion, is there a regional-level project that worked well in terms of its planning outcomes?

Note: Themes and corresponding question sets are 'loosely' aligned (see Alvesson 2011, 52) to promote fluid transitions between each part of the interview.

The first set of questions explore the political rationalities and planning discourses that informed each interviewee's understanding of the case. Rationalities operate at a systemic-level to create the context for governance (Jessop 2004a) and to condition the subjects of planning policy (Raco 2006). Discourses can also operate at a systemic-level but are most often articulated at a project-level because they influence "the way people see an issue, a problem, a situation, a challenge, an opportunity or a practice" (Albrechts and Balducci 2013, 18). The interview questions were designed to draw out themes through informal conversations about the current strategic priorities of an organisation,

and how these priorities relate to high-speed rail planning. The research participants were also encouraged to explore different barriers to regional development and to speculate about more desirable forms of regional governance.

The second set of questions explore the visions of development and governance that each research participant attached to high-speed rail. Planning visions work to change the way that power and resources are allocated across territories by reaffirming, resisting or rejecting extant spatial organizations and political structures (Healey 2004a). Simply put, planning visions communicate what a project does and where, how it is to be done and by whom. Questions under this theme supplied prompts to explore high-speed rail planning as "a form of politics" (Healey 2004a, 46) that harnesses certain ideas about governance to facilitate certain modes of development. The questions are designed to draw out the kinds of strategies and practices that research participants intend to use to transform prevailing approaches to planning and governance. This elicited spatial concepts that described how high-speed rail is expected to reorganise urban functions, spatial structures and social relationships.

The final set of questions explore each participant's tacit knowledge of large project planning and regional governance in Hume. These questions are designed to illuminate the utility and limitations of current multilevel arrangements by prompting conversations about governance 'on the ground' (see Raco 2006). The interviewees were encouraged to discuss examples of projects where the strategies and practices used to advance their organisation's agenda were effective. These conversations provided insights into how the formal and informal spaces of planning in Hume are connected to wider political processes. They also supplied valuable information about the vectors for governance reform promoted by regional actors.

Finally, before completing each interview, the interviewee was asked if they had any questions about the plain language statement or conditions noted in the participant consent form. Copies of the plain language statement and participant consent form can be found in Appendix 5. Most interviews were conducted in person and the data collected using a combination of audio-recordings and hand-written notes. Each interview ran for approximately forty-five minutes and the recordings were transcribed by the researcher using a secure online talk-to-text service. Permission to collect the data was obtained from each participant prior to starting the audio-recorder, and the data was anonymised upon request, in accordance with ethics application ID 1748788.1 approved by the Human Research Ethics Committee, Faculty of Architecture, Building and Planning, The University of Melbourne.

4.5. Geographic analysis techniques

This section details techniques used in the geographic analysis to understand the urban and regional effects of high-speed rail development. Qualitative planning analysis is used in the case description (Chapter 5) to discern the current trajectory for spatial development in Hume, and in the first part of the geographic analysis (Chapter 6) to assess the levels of connectivity obtained by each high-speed rail proposal. Then, quantitative analytical techniques are used in the second part of geographic analysis to measure the potential impact of high-speed rail development on patterns of spatial accessibility along the southeastern seaboard of Australia. Combined, the qualitative and quantitative analytical techniques illuminated the relationship between recent episodes of high-speed rail planning and current state spatial strategies in Hume.

4.5.1. Analysing planning strategies

The qualitative planning analysis involved a review of strategic plans and regional policies to identify current directions for industrial development and urban growth in Hume. Regional actors also supplied insights into current and future strategic initiatives during the interviews. The planning analysis is aided by the production of maps that illustrate current urban structures and future patterns of spatial growth. These maps are an important part of the geographic analysis because the information collected about some high-speed rail proposals supplied limited detail on the station sites and their relationship to existing transport networks and land uses. Table 9 details the categories of land use, elements of the transport network and geographic features documented in the maps. The content of the maps is limited to structural elements (e.g., large infrastructures and patterns of land use) because the objective of the analysis is to understand how state-significant projects like high-speed rail might shape urban development.

The maps serve two general purposes in the geographic analysis. First, they support an assessment of each proposal against Quality 1 of regionally integrated high-speed rail: *high-speed rail stations must be 'spatially connected' i.e., integrated into settlement systems and able to promote balanced patterns of spatial growth by targeting accessibility improvements towards established communities.* It is important to note that criteria in Quality 1 are performance-based and deliberately broad to allow for a range of planning strategies to be deemed spatially connected. The second purpose of the maps is to develop an understanding of the relationship between high-speed rail planning and urban spatial restructuring in Hume. Adding different high-speed rail infrastructures as

an overlay to the maps provided insights into how different spatial planning strategies could interact with existing urban systems. Mapping current and future strategic initiatives in a consistent way also allowed the character and form of regional integration in Hume to be discerned.

Table 9. Features drawn in the regional and local scale maps

Content	Features
Land uses	– Commercial centres and mixed-use zones – Industrial areas and logistics hubs – Other urbanised areas and urban expansion zones – Current and future strategic sites
Transport networks	– Regional passenger rail and freight rail – National and state highways and arterial roads – Airports
Physical geography	– Topographical features – Rivers and waterbodies
Socioeconomic conditions	– Regions of advantage and disadvantage

Note: Table 7 lists data sources used in the regional and local maps.

4.5.2. Analysing spatial accessibility

Quantitative techniques of spatial accessibility analysis supplied insights into the levels of integration obtained by each high-speed rail proposal. Indicators of accessibility developed in Gutiérrez et al. (1996), Gutiérrez (2001) and López et al. (2008) are used to understand how different planning strategies target accessibility improvements towards different urban geographies and, potentially, influence patterns of spatial growth. These techniques are used illuminate how spatial and temporal relationships between different cities and regions along the southeastern seaboard of Australia could change after the introduction of high-speed rail (see Martín, Gutiérrez and Román 2004).

Interpreting results from the quantitative analysis necessitates the application of concepts that relate changes in transport connectivity and spatial accessibility to planning outcomes in non-metropolitan regions. The concepts of ‘regional connectivity’ and ‘regional cohesion’ are used in this study to understand the influence of high-speed rail development on settlement system restructuring and urban spatial growth. Regional connectivity is generally defined as “the level and effectiveness of regional networks to facilitate flows of goods, services, people and knowledge” (UNESCAP 2014, xiii). This concept can help to interpret results from the quantitative analysis because it shows how travel-time improvements introduced by different network planning strategies are targeted towards different cities and regions. Application of the concept involved

comparing current travel-times between major cities and regional cities to the potential travel-times enabled by high-speed rail. This illuminates the "selective capacity" of high-speed rail to target connectivity and accessibility improvements towards certain cities (Ureña, Menerault, et al. 2009, 266) and to restructure settlements systems (see Mazzeo 2012, Spiekermann and Wegener 2008, 2006).

The concept of regional cohesion supplies an overlay to the analysis that helps to discern the spatial effects of different planning strategies. Regional cohesion provides a framework to assess "whether or not [a transport] policy contributes to a more balanced spatial distribution of accessibility" (Ortega et al. 2012, 132). It uses "changes in the spatial distribution of accessibility as a proxy to assess [the] regional cohesion effects of transport infrastructure investment" (López et al. 2008, 277). Positive cohesion effects result from projects that distribute accessibility improvements more evenly (i.e., in a balanced way) and negative cohesion effects result from projects that polarise accessibility (i.e., distribute accessibility improvements unevenly). The concept of regional cohesions gives insights into how the accessibility improvements introduced by high-speed rail target certain cities and regions and privilege certain planning scales.

A four-step process is used to map current and future conditions of spatial accessibility in Hume. The initial steps involved (1) acquiring the base data and (2) building an impedance (travel time) model of the southeastern seaboard of Australia using a Geographic Information System (GIS). Impedance models for each high-speed rail proposal were built after a short verification phase that compared travel time results from the model of existing conditions to the results obtained from Google Maps. The travel-time results for all high-speed rail proposals were then (3) imported into an accessibility model where the equations for three different accessibility indicators were applied and the results exported. The final step (4) involved mapping the results in GIS. Travel time maps with contours (isochrones) at 15-minute and 60-minute intervals were also produced using GIS.

Figure 8 situates the area of analysis in relation to the Hume Region and major cities and regional cities along the southeastern seaboard of Australia. The boundary of the analysis was extended beyond the study area to ensure the accessibility impacts of different network planning strategies could be understood in relative terms. The combined areas of NSW, Victoria and the ACT gave a suitable extent for the analysis because major cities in these jurisdictions are nodes in the NLTN.

The spatial accessibility indicators used in Step 3 were developed by Gutiérrez et al. (1996), Gutiérrez (2001) and López et al. (2008). First, a Location (Lo) indicator is

used to identify changes in the settlement structure that could result from high-speed rail development. Location is a weighted-average distance indicator that factors the number of major destinations within a given area, the population of those destinations and the average time that it takes to travel to each destination from all origin points (López et al. 2008, 286). It is calculated using Equation 1 derived from López et al. (2008, 282) where Lo_a indicates the accessibility of origin a; I_{ab} is the impedance in travel time (minutes) from origin a to destination b; and P_b is the population of destination b (defined as a commercial centre with a population greater than 10,000 persons).

Equation 1. Location (Lo) indicator

$$Lo_a = \frac{\sum_{b=1}^{n} I_{ab} \cdot P_b}{\sum_{b=1}^{n} P_b}$$

Figure 8. Study area of spatial analysis



Data sources: ABS states and urban centres and localities, ESRI terrain data and PSMA road and railway data.

Second, a Potential (Po) indicator is used to foreground "the potential of opportunities for interaction" enabled by high-speed rail (López et al. 2008, 283). Potential is a gravity-based indicator that shows how economic activity agglomerates around cities that are networked into dense clusters. It factors the nearness of an origin point to the total volume of economic activity within a study area (Gutiérrez 2001, 232) and uses urban population as a proxy for economic activity. Results from the Potential indicator will inform discussions about how high-speed rail development could restructure the spatial economy cities and regions. It is calculated using Equation 2 derived from López et al. (2008, 283) where Po_a indicates the potential for economic activity at location a; and α is a gravity parameter usually set at 1 because a value higher than 1 may "over-weight relations over short distances" López et al. (2008). All other values are known (above).

Equation 2. Potential (Po) indicator

$$Po_a = \sum_{b=1}^{n} \frac{P_b}{I_{ab}^{\alpha}}$$

4.6. Institutional analysis techniques

Qualitative social scientific techniques are used to analyse the primary source data obtained from interviews with sixty-four (n=64) research participants and from secondary sources including high-speed rail planning studies, government policies and plans and reports by non-government groups. This section discusses the techniques used to analyse the research data as well as the criteria used to select the research participants. Both activities represent the first tentative steps towards defining the institutional boundaries of the case because they involve identifying the relevant planning actors from different territorial levels, social sectors and regional geographies.

The number of research participants in this study is large because of the need to obtain data from actors who represent the interests of stakeholders from different levels, sectors and geographies. The large sample size also made it possible to explore a range of perspectives on the case and to foreground those that best addressed the research questions. While the approach sometimes led to 'dead ends' because the data obtained from a participant was not useful to the study, it also produced valuable insights from participants who would not have been interviewed if the sample size was smaller.

4.6.1. Participant selection criteria

To identify the prospective interviewees it was first necessary to develop a "principal of who and what really count" as a stakeholder (Freeman 1994, 411). The governance concepts explored in the literature review outline a spectrum of definitions of stakeholder that are more-or-less inclusive. Patsy Healey (1998b, 3), at the inclusive end of the spectrum, advanced a "stakeholder society" concept that incorporates "a wide universe of those with a 'stake' in a place." Stakeholders can have "well-defined interests and strategies," but they can also have "vaguely defined or fluid ideas about their stake in a place" (Healey 1998b, 4). Bent Flyvbjerg (1996, 383), although an advocate for inclusive planning, provides a more exclusive definition of stakeholder by drawing a distinction between the procedural and political dimensions of planning. Observing that "decisions about who should count as stakeholders are clearly political acts," Flyvbjerg (2002, 364; 357) argues that organisations or extended social structures that operate as one stakeholder supply "too little democracy [and] clearly not enough when others are affected and wish to be involved." The challenge is to develop a definition of stakeholder that prioritises groups who ought to have a say in high-speed rail planning and do not and deprioritises groups whose purchase on project planning is tenuous.

This study adopts Mitchell, Agle, and Wood's (1997, 853) theory of "stakeholder identification and salience," which defines a stakeholder as an individual or group "possessing one or more of three relationship attributes: power, legitimacy, and urgency." Mitchell et al. (1997, 882) observe that prevailing definitions adopt a normative theory of 'stakeholder identification' which, like Healy, register the legitimacy of moral, legal, and property-based claims of affected groups. In contrast, exclusive definitions tend to adopt a descriptive theory of 'stakeholder salience' where a stakeholder is defined "in terms of their direct relevance to . . . core economic interests" (Mitchell et al. 1997, 857). A theory of stakeholder identification and salience adds "to current techniques that emphasize power and interests . . . the vital dimensions of legitimacy and urgency." Who or what counts as stakeholder is therefore defined in relational terms: 'power' accounts for asymmetrical relationships among social actors, 'legitimacy' accounts for public perceptions that certain actions are desirable, proper or appropriate, and 'urgency' accounts for the degree to which the claims made by any stakeholder or group ought to require prompt attention.

For the purposes of this research, a stakeholder is defined as an organization holding one or more of these claims—power, legitimacy and urgency. Considering the case of high-speed rail planning in Hume, that claim may be exercised either directly (through active participation in plan-making processes) or indirectly (by contributing to public

debates about high-speed rail or engaging with the planning process through formal or informal political channels). Table 11 details the stakeholder categories that were developed to select participants for the research: project proponents, decision-makers, policy advocates, community leaders, government planners and regional actors. The categories are stratified according to the general level of influence of each group on high-speed rail planning and their claims to power (P), legitimacy (L) or urgency (U) noted.

Within each stakeholder category, a 'purposive' sample (Brewer 1999) of ten or more participants from each territorial level (Commonwealth, State and Local), social sector (public, corporate and community) and regional geography (metropolitan and non-metropolitan) was sought (see **Error! Reference source not found.**). The selection process looked to identify so-called "virtuoso performers" in their field and experts in the "broadest sense" i.e., research participants who exhibited a combination of context-dependent knowledge, lived experience and intuition (Flyvbjerg 2001, 23). This included, but was not limited to politicians, qualified professionals, government officials and other representatives of government and non-government organisations that influence, or stand to influence, high-speed rail planning. Most research participants were identified in the preliminary review of planning and policy documents, media reports and government and non-government organization websites including community social media pages. Some research participants were identified during the interviews or recommended through the author's academic and professional networks. Appendix 6 lists the research participants.

Table 10. Research participants by level, sector and geography

Level	Sector			Geography	
	Public	Corporate	Community	Metropolitan	Regional
National	9	6	-	12	3
State/Territory	8	2	-	7	3
Local	20	7	11	4	34
Other		1	-	1	
Subtotal	37	16	11	24	40
Total			64		64

Note: Only the predominant sector is noted in the table if a research participant occupied more than one sector.

4.6.2. Qualitative content analysis

The semi-structured interviews produced extended accounts of the case that were qualitatively rich and thus well-suited to the application of social scientific methods (see Riessman 2008, 54). Qualitative analysis of interview transcripts and selected policy doc-

Table 11. Categories of stakeholder and sample size interviewed

Category	Sample	Description	P	L	U
Project proponent:	5	Leaders of public or private organizations that developed a high-speed rail proposal. To capture the diverse groups that constitute recent proposals, this includes vested interests, policy entrepreneurs, and private firms that contributed extensively to planning.	P	L	
Policy maker:	9	Elected officials and senior bureaucrats at the Commonwealth or State government level that have some power to progress high-speed rail planning. To capture the constellation of actors that influence decision-making, this category includes political aids advising elected officials directly.	P	L	
Policy advocate:	11	Individuals who engage in public debate to frame discourses around high-speed rail planning and urban planning and infrastructure development more broadly. This includes private sector professionals not connected to a high-speed rail proposal and technical experts including planning academics.		L	
Community leader:	13	Elected councillors or senior administrators in Local government that interface with the Commonwealth and State governments regarding strategic economic projects and work with the community to formulate and implement regional development initiatives.		L	U
Government planner:	11	Public servants and private consultants who develop and implement urban projects. As public servants, they advise elected officials and administer the development of policies, strategies and plans. As private consultants, they work for government on urban projects that are in the public interest.	P	L	
Regional actor:	15	Representatives of organisation outside of the formal planning process who can influence outcomes through collective action. This includes heads of regional governing bodies, leaders of local growth coalitions and members of civil society groups with social and environmental concerns.		L	U
Total	64				

Notes: The power (P), legitimacy (L) and urgency (U) of stakeholder claims are noted according to Mitchell, Agle, and Wood's (1997) theory of stakeholder identification and salience.

uments and strategic plans allowed the research to get "behind the mask" of transport planning (see Marsden and Reardon 2017, 249) to interrogate its constitutive "rationalities and practices" (see Raco 2006, 332). The transcripts and archival materials were analysed in a two-step process that used thematic and narrative analysis techniques.

Step 1 involved a thematic analysis of transcripts obtained from six pilot interviews conducted in late-2017 to test the interview questions. Despite the small sample size of this cohort of participants, a cursory analysis of the transcripts revealed a set of common subthemes that informed subsequent analyses (see Table 12). The coding process followed an inductive logic where prevailing development discourses, planning and governance practices and historical events provided "summary markers" for more detailed analyses (see Guest, MacQueen and Namey 2012, 9). "Repetition" was the principal criteria for identifying subthemes in Step 1, but "comparative" techniques were also used in Step 2 as the quantity and richness of the data increased (see Guest et al. 2012, 20-21). This helped to refine the list of subthemes as the similarities and differences between accounts became easier to discern.

Step 2 used narrative analysis to ensure that "particularities and context come to the fore" in the research (Riessman 2008, 13). As discussed, thematic analysis in Step 1 identified subthemes that pointed the institutional analysis towards "what" elements of the qualitative data contained "substantive meaning" (see Holstein and Gubrium 2012, 6). The narrative analysis in Step 2 served a different function because it helped to "emphasise the process of narrative production" and to understand "how" prevailing discourses are conveyed, social practices rationalised and historical events interpreted (see Holstein and Gubrium 2012, 7). Analysing the data obtained from interviews with an additional fifty-eight research participants (total n=64) allowed the preliminary set of subthemes to be expanded and refined. These interviews were conducted during the field research in Shepparton, Albury-Wodonga, Canberra and Sydney between June and August of 2018. Although this meant that most interviews were conducted after the study period, the data is valid because, as Mark Freeman explains:

> at the core of the idea of narrative as a mode of understanding is its retrospective dimension, that is, the fact that narratives always and necessarily entail looking backward, from some present moment, and seeing in the movement of events episodes that are part of some larger whole. (Freeman 2015, 27)

Table 12. Themes and subthemes used to code the qualitative data

Themes	Subthemes	
	High-speed rail planning	Regional planning in Hume
Political rationalities:	Big Australia	Albury-Wodonga
	Jobs and growth	Competitive advantage
	Road vs rail debate	East-west regional divide
	New federalism	Greater Shepparton
	Population problem	Inter-regional inequality
	Small government	Inter-state competition
	Urban age	Metro-regional divide
	Urban crises	Political overlay in Hume
Planning discourses:	Compact city	Balanced development
	Inland frontier	Cross-border community
	Networked-cities	Major cities (Commonwealth)
	New Australian settlement	Midland arc
	Opening up the regions	Multi-centred region
	Smart cities	Population rebalancing
	Strategic decentralisation	Regional cities (State)
	Vampire suburbs	State of cities
Governance practices:	Corridor alliance	AWDC
	Infrastructure-led development	Committees for . . .
	Master-funded development	Kitchen table conversations
	Public-private partnership	Political disruption
	Memorandum of understanding	Regional Cities Victoria
	Open access regime	Regional Partnerships
	Value creation	Rise of the independents
	Vertical integration	Two Cities One Community

Note: Only predominant subthemes are listed in the table.

Finally, it is important to note that not all recordings from the interviews were transcribed because the data supplied by some participants did not address the research questions. Nevertheless, some participants who fell into this category identified other participants who supplied valuable data for the research.

This concludes the research design chapter. Chapter 5 will describe the study area for the research—the Hume Region—before the case method and analytical techniques detailed in this chapter are applied in the empirical chapters: the qualitative and quantitative methods of geographic analysis in Chapter 6 and the qualitative social scientific methods in Chapters 7, 8 and 9. As discussed, the concluding chapter will reflect on the usefulness of the conceptual framework and, where applicable, the case method and analytical techniques applied in the research.

(9,870 words)

Chapter 5. Constructing Hume: a case description

Chapter 5 bounds the geographic and institutional parameters of the case by exploring the historical, economic and political contexts for high-speed rail planning in Hume. The scope of the case description is comprehensive in accordance with Robert Yin's (2009, 50) contention that "[single-case] designs . . . require careful investigation of the potential case to minimize the chances of misrepresentation and to maximize the access needed to collect the case study evidence." Diverse sources of information including historical accounts, government policy statements, strategic plans and insights from the field research are analysed to elucidate a portrait of spatial governance in Hume. The analysis charts Hume's evolution as a space for state planning: from its inception as a site for nation-building projects following the federation of Australia in 1901 to its current incarnation as Hume RMF. Accordingly, it is argued that Hume is a 'constructed region' whose geographic scale and institutional scope is periodically restructured to serve the economic and political imperatives of the state. The implications of this finding for the research are discussed in the closing section.

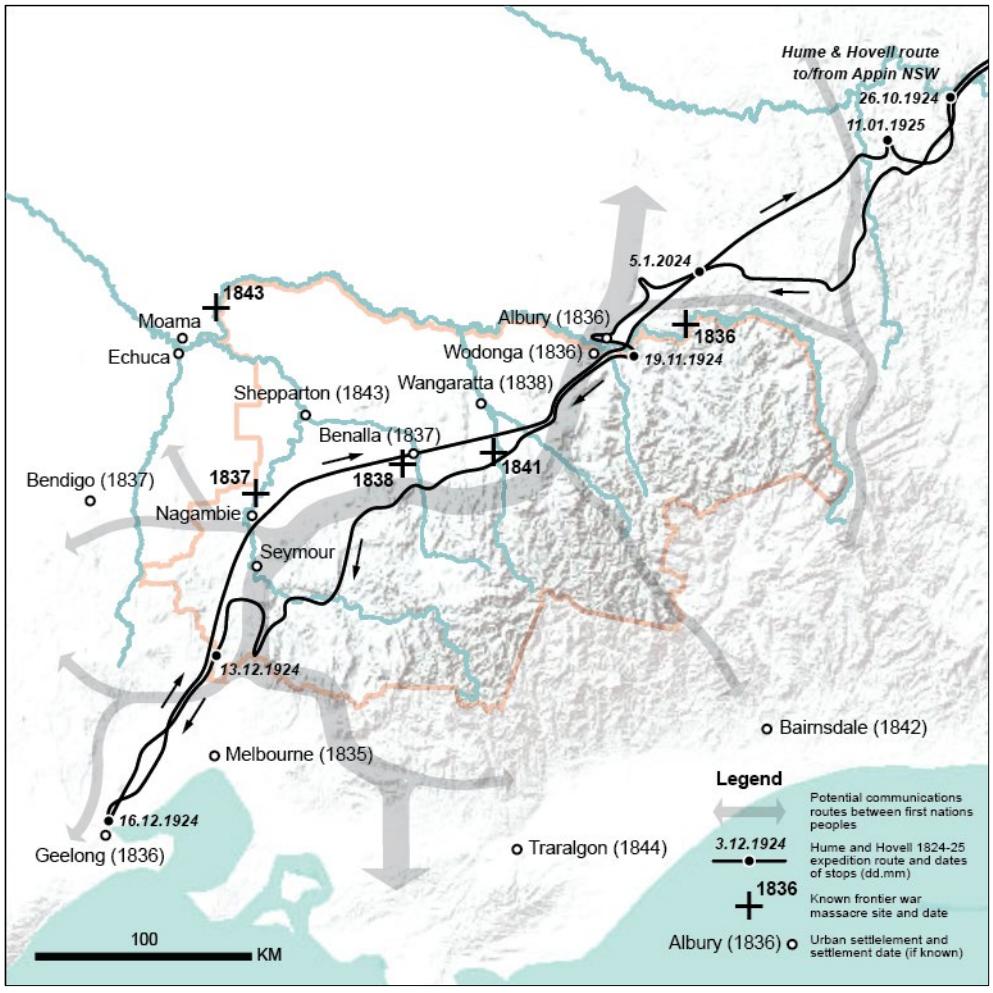
5.1. History and regional identity

The Hume Region takes its name from Hamilton Hume, a British explorer who "led an expedition of discovery to find new grazing land for the colony" of New South Wales (State Library of NSW 2018). Hume and his colleague, William Hovell, became the first Europeans to cross the Murray River—the border between the modern states of NSW and Victoria—and survey the "valuable agricultural and grazing lands" of the Hume Region (ADB 1966). Hume and Hovell departed from Appin in October 1825, a colonial outpost 70 km southwest of Sydney, and arrived two-months later in the Port Phillip District, a region of colonial NSW that would be incorporated into the colony of Victoria in 1851. Both men received sizable land grants from the colonial government after they returned to Appin in January 1825 (ADB 1966) and several 'nation-building' projects along the expedition route now bear Hume's name: large-scale infrastructures such as the Hume Dam (1919-36) and Hume Highway (1928-) that were constructed by a fledgling nation-state to engender the economic and political integration of NSW and Victoria.

Europeans rapidly colonised indigenous lands between the Murray River and Port Phillip District after Hume and Hovell's expedition. Propelled by the settlement of Melbourne in 1835, Europeans expanded into hinterland regions and colonised the present-day sites of regional cities and centres of Hume by establishing sheep runs and

resource extraction industries. Figure 9 maps the colonisation process by establishing spatial and temporal connections between Hume and Hovell's expedition route and dates when Europeans are believed to have colonised indigenous lands in Hume. It also maps sites of known massacres in the Frontier Wars (1788-1939) (see Ryan et al. 2018) and corridors that likely facilitated communication between first nations peoples (see Crabtree et al. 2021). Today, the Hume Highway is Australia's busiest interstate route and "backbone" of the NLTN (National Transport Commission 2016, 59). As the historian Kiera Lindsey (2004, 132) points out, however, the geography it occupies and territories it connects were expropriated from first nations communities: "Many of our roads began as native paths that were appropriated by explorers and settlers, then rapidly reinforced by pastoralists and posties."

Figure 9. Colonisation of Hume, 1824 to 1901



Data sources: Hansford (1924) Map showing track of Hume and Hovell across Victoria, Ryan et al. (2018) Colonial Frontier Massacres in Central and Eastern Australia 1788-1930, and Crabtree et al. (2021) Landscape rules predict superhighways for the first peopling of Sahul.

It is estimated that Victoria's indigenous population fell from 60,000 in 1800 to less than 1,000 in 1900 as a result of European colonisation (Smith et al. 2008, Figure 1),

exacting an immeasurable toll on First Nations communities in Hume including the Yorta Yorta, Bangerang, Ngurai-Illam Wurrung, Taungurung, Waywurru and Dhudhuroa language groups (see VACL 2016). The purpose of pointing out these connections across space and time is not to draw parallels between moral questions pertaining to high-speed rail planning and the injustices experienced by first nations peoples. Rather, it is to point out that high-speed rail planning in Hume is part of a neoliberal project (see Katz-Rosene 2013) that owes a "continuing debt" to settler colonialism (see Lloyd and Wolfe 2016, 109). Infrastructure development and regional governance are technologies of enclosure and dispossession that maintain continuity between the colonial and the neoliberal eras (see Hartwig, Jackson and Osborne 2020).

Figure 10. Territorial structure of Hume, 2008



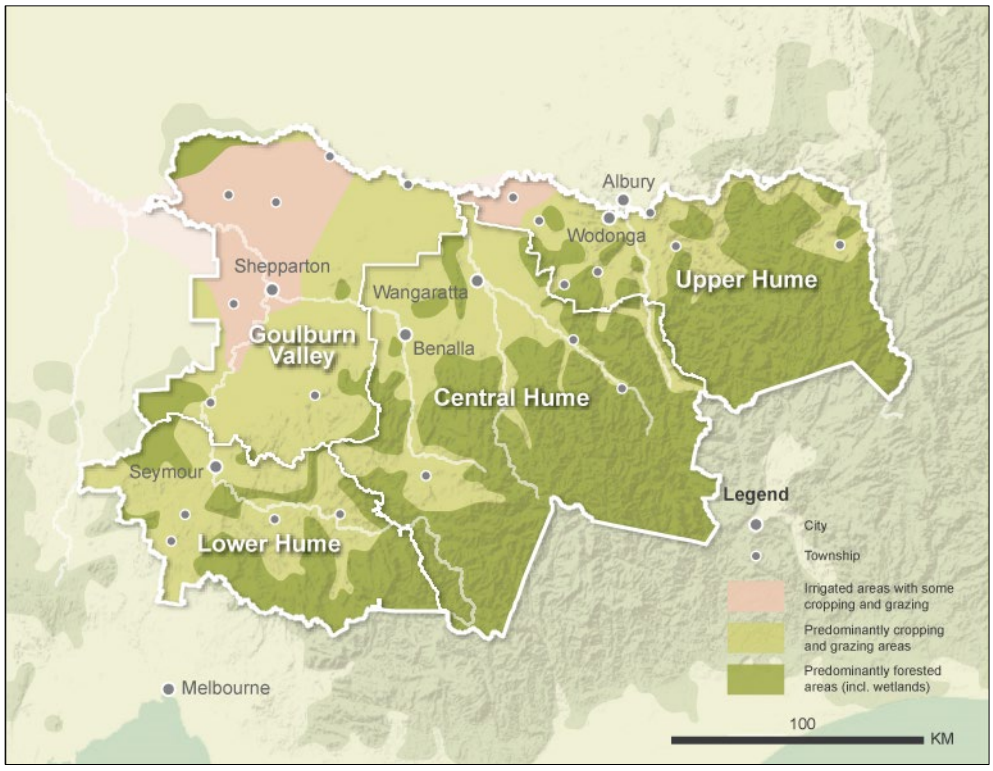
Note: Table 7 lists data sources used in the regional and local maps.

In Hume, the technologies of colonial dispossession work at the levels of discourse and practice. The nomenclature 'Hume Region' gives an example of the former: a reflexive term that connects the act of colonial intrusion to the etymological origin of 'region', which means 'to rule over or give direction to a district' in the Latin (derived from *regere* and *regio*, respectively). An example of the latter is given by Figure 10, which maps the relationship between physical geography, infrastructure development and the territorial structure of Hume. State control over communications infrastructures and water resources give structure to the regional settlement system by "[securing] the

circuitry of capital" on the unceded indigenous lands (see Pasternak and Dafnos 2018). The map elucidates how colonial dispossession is perpetuated by the technologies of state planning including infrastructure development and regional governance (see Porter 2018, Porter, Jackson and Johnson 2019). These are important relationships to register in the context of this study into high-speed rail planning in Hume.

In Victoria, strategic planning for non-metropolitan regions is managed by regional institutions that have no formal standing in Australia's federal system of government. They are informal governance spaces that work to align the development goals of Australian governments and to coordinate the activities of state and non-state actors. Hume is one of eight "administrative regions" established by the Victorian government in 2005 "to facilitate collaboration between State Government departments and local government" and "the operation of place-based partnerships" (Wear 2007, 24). It is geographically bound by the Murray River to the north, the Great Dividing Range to the east, metropolitan Melbourne to the south and the Goulburn Valley to the west (see Figure 10). Internally, Hume is organised by a network of road and railway infrastructures that connect regional cities to state capital cities along the southeastern seaboard. The Hume corridor—defined by the Hume Highway and Northeast Railway Line (Hume RMF 2010a, 2014)—structures the spatial economy of the region.

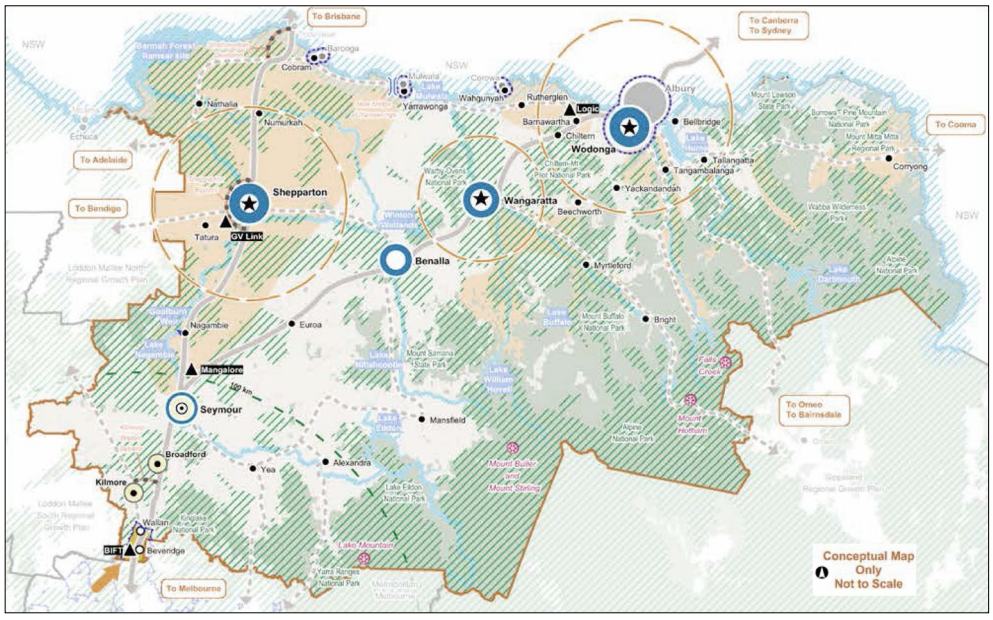
Figure 11. Land use and regional identity in Hume, 2008



Data sources: Land use patterns from Department of Primary Industries (2010) Victorian Land Use Information System.

The relationship between water and transport infrastructure and state power is reinforced by the territorial structure of Hume's constitutive Local Government Areas (LGAs). Boundaries of the Indigo, Wangaratta, Benalla and Strathbogie LGAs negotiate the alignment of the Hume corridor and the contours of the Kiewa, Ovens and Broken River valleys. Greater Shepparton bounds an irrigated floodplain at the confluence of the Goulburn and Broken Rivers and is connected to the Hume corridor by the Goulburn Valley Highway and Goulburn Valley Railway Line. The geomorphological conditions and fluvial processes of each river valley have also informed the development of distinct rural land use systems and place identities (see Figure 11). It follows that Hume is not a region in a conventional sense—a territory bounded by homogeneous geographical or cultural characteristics (see Amin 2004, Paasi 2002, 2003); rather, Hume is a constructed region where diverse landscapes and regional communities are bound by governments to promote the objectives of state planning.

Figure 12. Hume Regional Growth Plan, 2014



Source: Hume RMF (2014, Map 18) Regional Growth Plan

A brief appraisal of the strategic vision that governs spatial development in Hume adds weight to the idea that Hume is a constructed region. "What makes Hume unique" in the minds of government planners is that larger and smaller cities within the region exhibit a high degree of social and economic cohesion (see Hume RMF 2010a, 14). Unlike other non-metropolitan regions in Victoria that are anchored by a "dominant regional centre," government planners portray Hume "as a multi-centred region within the context of a multi-centred state" owing to its "network of high functioning regional cities and centres" (Hume RMF 2010b, 3). Figure 12 illustrates how this vision translates

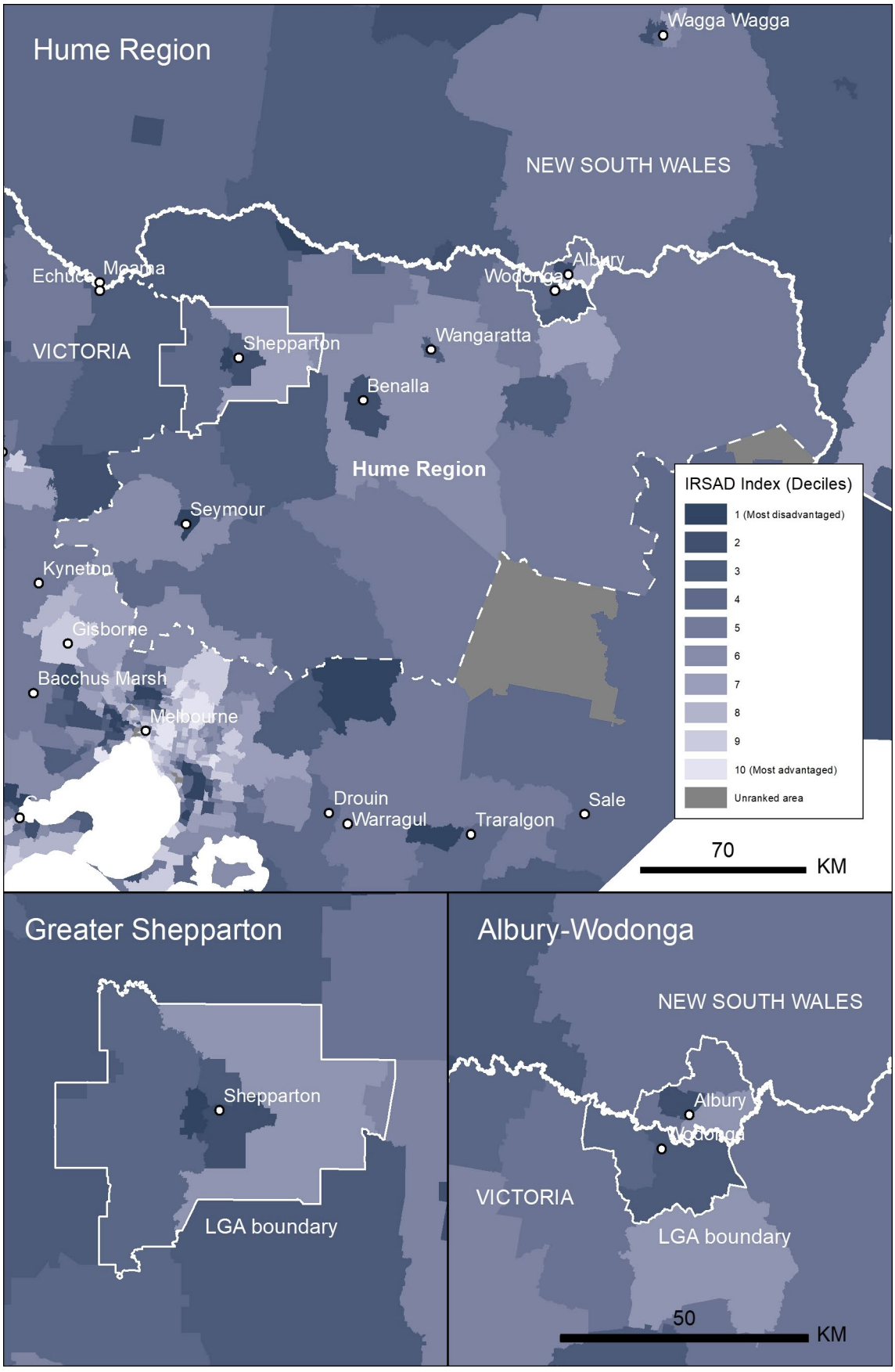
to strategies for developing the regional settlement system: Shepparton and Wodonga are targeted for 'major growth' and Wangaratta and Benalla are targeted for 'medium to high growth' while Seymour, a satellite within Melbourne's peri-urban zone, is designated a 'significant change' location. Government planners adopted tropes from European spatial planning including poly-centricity, balanced growth and regional cohesion to develop and articulate a unified planning vision for the region. When "examined collectively," they contend, "this network of regional cities and centres . . . has a similar capability to that of major regional cities in other Victorian regions to sustainably accommodate future growth" (Hume RMF 2010a, 3).

5.2. Development context

The vision of balanced development articulated by government planners stands in contrast to the varied social and economic conditions experienced by communities in Hume. Figure 13 maps patterns of relative socioeconomic advantage and disadvantage across northeast Victoria and southern NSW. Two spatial dynamics apparent in the maps begin to illuminate the development context for high-speed rail planning in Hume. The first dynamic exhibits strong core-periphery characteristics: a geographic divide between metropolitan and regional communities that is delineated by areas of concentrated advantage and disadvantage in Melbourne and areas of moderate to high disadvantage in Hume. This disparity in development outcomes between metropolitan and non-metropolitan regions stems from the spatial concentration of tertiary economic functions in Australia's largest urban regions (Kelly et al. 2014) where the co-location of large firms attracts population growth and drives the outward expansion of metropolitan areas (O'Connor, Stimson and Taylor 1998).

The second spatial dynamic exhibits similar core-periphery characteristics albeit more subtly than the first: variegated patterns of socioeconomic advantage and disadvantage across urban and rural communities in Hume. In the decade to 2011, Hume experienced strong rates of population and economic growth relative to other non-metropolitan regions in Victoria as population grew steadily at 0.6% p.a. and gross regional product increased by 2.2% p.a. However, population growth was concentrated in just four LGAs—the regional cities of Shepparton, Wodonga and Wangaratta and the regional centre of Benalla—while populations in the eight rural LGAs declined over the same period (Victorian Government 2014a, 18; 57). This dynamic is reflected in the generally consistent levels of socioeconomic disadvantage observed across the region. Finally, contrasting patterns of relative socioeconomic advantage and disadvantage are

Figure 13. Relative socioeconomic advantage and disadvantage in Hume, 2011



Data source: ABS (2018) Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) 2011.

more pronounced near regional cities (see Figure 13 insets), drawing parallels to the patterns socioeconomic disparity observed in metropolitan Melbourne.

Melbourne's dominance over Victoria's spatial economy and the dominance of primary production and extractive industries in regional Victoria have instilled economic path dependencies that constrain possibilities for the development of Hume (see Victorian Government 2014a, 29-42). Additionally, current government policies and spatial strategies reinforce geographic and economic divides between Victoria's metropolitan and non-metropolitan regions. In Hume, a policy bias is evident in recent public infrastructure investments that promote development of the primary and secondary economic sectors including freight and logistics infrastructures and large-scale irrigation projects. Government investment priorities, which differ markedly across the region, have arguably contributed to the disparate socioeconomic outcomes experienced by local communities. A brief analysis of the local contexts for development in Shepparton and Wodonga illuminates how recent public investments have influenced social and economic development outcomes across the region.

The City of Wodonga features prominently in literature promoting the success of economic development initiatives in regional Victoria that are either funded or financed by the Victorian government (see RDV 2004, 19-20, RDV 2005, 15; 20). Between 1996 to 2016, Wodonga was a statistical outlier among medium-sized regional cities in Victoria because it exhibited rates of population and employment growth that were commensurate to the large regional cities (see Figure 14). Furthermore, its unemployment rate was lower and its industrial structure more diversified than other regional cities in Hume (Victorian Government 2014a, 38-39). Wodonga's strong economic performance is in part due to Commonwealth government investments in military facilities and regional universities, which attract skilled workers to the region. Its proximity to Albury, NSW, is also a contributing factor. With a combined population of 89,000 people in 2016—comparable in size to the large regional cites of Ballarat and Bendigo in Victoria—Albury-Wodonga is the most economically productive region in Victoria outside of Melbourne and Geelong (see City of Wodonga 2012, 3).

Wodonga's relatively strong economic performance is also attributable to recent public investments in rail infrastructure. Foremost among these investments was the Northeast Railway Upgrade (2007-08), a $285 million project to convert the mixed-gauge line between Melbourne and Wodonga to standard-gauge and upgrade the track ballast and signalling systems. The upgrade was funded by the Australian Rail Track Corporation (ARTC)—a wholly-owned subsidiary of the Commonwealth Government—as part of the

North South Corridor Strategy: a $2.4 billion program to "create an interstate rail freight super-highway" along Australia's eastern seaboard (Australian Government and Victorian Government 2008). The $216.3 million Wodonga Rail Bypass (2008-10) was another factor in Wodonga's strong economic performance. This project, funded by the Commonwealth and Victorian governments as part of the North South Corridor Strategy, eliminated train speed impediments (ARTC 2005, 4) and released numerous brownfield sites in central Wodonga for urban redevelopment (see RDV 2015, 24, Figure 7).

Figure 14. Urban redevelopment site in central Wodonga



Photo credit: author

In 2006, National transport policy reforms and Commonwealth and State government investments in rail infrastructure were embedded into the Hume Region by the construction of Wodonga Logic: an intermodal freight terminal and industrial park developed by the City of Wodonga. Local government leaders have credited Logic for Wodonga's strong economic performance because it attracting more than 1,000 jobs and over $500 million of private investment to the area (City of Wodonga 2012, 5-6, Cr Anna Speedie, Participant 22). As a 'state-significant' project, the City of Wodonga (2005) received financial support from the Victorian government to construct Logic including $4 million in grants from the Regional Development Infrastructure Fund and $2 million in project finance from the Treasury Corporation of Victoria. The project was surrounded by controversy during the planning and construction stages because Council incurred $32 million of debt to finance land acquisition and capital works (ABC News 2008)—the highest level of indebtedness of any Council in regional Victoria (VAGO 2008, 45-7). The controversy subsided, however, as Council began to attract private investment to the

project including an international freight terminal, a supermarket distribution centre and advanced manufacturing facilities.

The development trajectory of Shepparton in recent decades contrasts with that of Wodonga. Shepparton is the commercial centre of the Goulburn Valley, a culturally vibrant subregion of Hume that is home to regional Victoria's largest multicultural community and indigenous population (Moran and Mallman 2015). Population growth in the Greater Shepparton LGA was approximately 1% p.a. between 1996 and 2016—relatively strong for a regional city in Hume (see Hume RMF 2014, Table 1)—but employment growth has not kept pace with population growth due to structural factors including dependence on primary production and related food manufacturing industries for economic development. Additionally, the local labour market is attractive to unskilled workers, working holiday-makers and undocumented migrants, which has increased pressure on government services (see Moran and Mallman 2015, 37-38, citing Missingham, Dibden and Cocklin 2006). Today, Greater Shepparton is beset by high-levels of youth unemployment and low-levels of educational attainment and household income relative to other LGAs in Hume (Victorian Government 2014a, 101).

The Millennium drought (1996-2010) also had a profound impact on the Goulburn Valley by reducing levels of economic activity and exacerbating structural challenges (Victorian Government 2014a, 56-60). The twelve-year period leading up to 2009 was the driest on record in southeast Australia (Timbal 2009, 10) and a two-third reduction in water use across the Murray Darling Basin caused a sharp decline in the productivity of irrigation districts (Kirby et al. 2014, 159). In Victoria, the impacts of the drought cut across metropolitan and non-metropolitan regions causing Melbourne's water storages to fall below 30% capacity in 2007 (Victorian Government 2007b, 25). Concern for the social and economic sustainability of communities and the condition of the natural environment lent a sense of urgency to government plans to reform water governance in the Murray Darling Basin. Developed by the Council of Australian Governments (COAG 1994), Australia's peak intergovernmental body, the water policy reforms introduced market discipline to the irrigation sector by unbundling water ownership from land ownership and creating a national water market (NWC 2011, 78, Pigram 2006, 96-81).

Two water infrastructure projects embedded the national policy reforms into the Goulburn Valley. First, the $2 billion Foodbowl Modernisation project (2008-20) aimed to reduce inefficiencies in the Goulburn Valley's ageing irrigation network by rationalising channel infrastructure, upgrading water distribution and metering technologies and centralising operations (Victorian Government 2007b, 4). The project

was “a deal” between Foodbowl Unlimited—a small group of local business and industry elites—and the Commonwealth and Victorian governments (Foodbowl Unlimited 2007, Suzanna Sheed MP, Participant 19) to divide “new water” produced by the efficiency measures between major stakeholder groups (Victorian Government 2007b, 8). The Victorian government contributed $1 billion to the project to secure 75 gigalitres per annum for urban use and the Commonwealth government contributed another $1 billion to secure 100 gigalitres per annum for the environment while the balance of new water would be “sold back to irrigators” on the national water market (Adams 2020). As Suzanna Sheed MP, the State member for Shepparton District, recalled,

> in 2008, at the end of the drought, Melbourne was running out of water and Brumby, who was the Premier, wanted to build a pipeline that went from Lake Eildon to Melbourne. The deal that was done by a group of people here, and I was part of it, was to get a $2 billion investment in the modernization of our irrigation footprint, which at that time consisted of 4,500 kilometres of open channels . . . So, the payoff to get the pipeline over the ranges and into Melbourne was that we got the investment. (Participant 19)

The $750 million North-South Pipeline (2008-10) was the second project that embedded national policy reforms into the Goulburn Valley. As a crucial component of ‘the deal’ to direct public investment towards the region (see Adams 2020), the project aimed to secure Melbourne’s water supplies against future droughts by constructing a 70 km pipeline to connect the metropolitan water grid to the Goulburn Valley (Victorian Government 2007b, 9). The North-South Pipeline generated statewide political controversy and divided communities across the Goulburn Valley. The deal brokered by local business and industry elites was struck with Labor governments at the Commonwealth and State government levels and opposed by local politicians and farmers groups that aligned with the Coalition (see Adams 2020).

The controversy persists as water prices fluctuate in response to a range of social and environmental factors: farmers’ groups argue that environmental buy-backs are excessive and constrain water available for agricultural use (VFF 2016) while indigenous communities and environmental groups argue that over-allocation and financialisation of the water market have exacerbated water security issues (Mooney 2013, Morgan 2012). Arguably, the purported benefits of the national water policy reforms are yet to materialise in the Goulburn Valley as dairy farm consolidation (Parsons Brinckerhoff 2009, 23-25) and the ‘drying off’ of irrigated land puts downward pressure on the local

economy (see RMCG 2016a, 73, 2016b, 4) and the increased flows induced by water trading damage sensitive riparian environments (see Jasper 2019).

Consequently, the context for development in Shepparton, like in Wodonga, is framed by a larger and increasingly complex geography of economic and environmental crises and neoliberal policy reforms. Despite their contextual differences, it is evident that political tensions associated with state-significant projects in both areas are connected to wider processes of regional integration. Public investments in freight rail infrastructure paralleled growth in logistics and advanced manufacturing in Albury-Wodonga, while public investments in water infrastructure paralleled declining employment in agricultural production and manufacturing in Greater Shepparton. Furthermore, social process that embedded state-significant projects into both areas were facilitated by local institutions that differed in character and form. In Shepparton, local business and industry elites were central to 'the deal' that secured Commonwealth and State government investment in water infrastructure, while in Wodonga the Local government assumed considerable financial risk to attract private investment to the Logic hub.

5.3. Political context

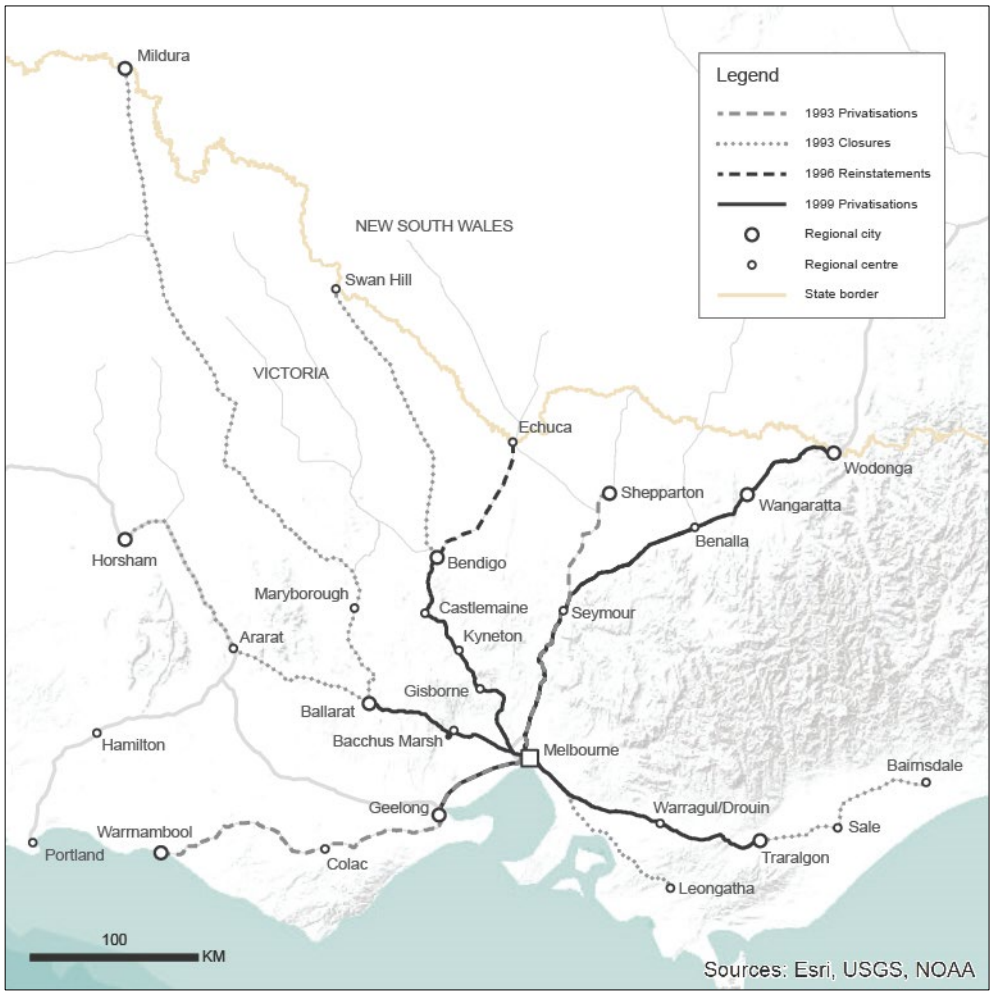
The case description will now turn to examine the political context for regional development in Hume; specifically, the influence of partisan politics on public investments in regional passenger rail. Accordingly, the scale of analysis will shift from the Commonwealth and to the State government level where responsibility for regional planning and transport policy is constitutionally vested (see Gleeson 2001).

A pertinent point in time to open the analysis is 1992 when the Hon. Jeff Kennett MP, Premier of Victoria and leader of the Coalition government (1992-99), "revolutionised" Victoria with a raft of public sector reforms (Costar and Economou 1999, ix). Kennett, who rose to power at the height of an economic recession, executed a program of fiscal austerity "legitimated by a determination to reduce state debt and cut public-sector expenditure and employment" (Wiseman 1996, 210). The austerity program was comprehensive and included local government amalgamations, school and hospital closures and the sale of state-owned assets (Murray 2007, 192). The economic impacts of Kennett's reforms rippled across the social fabric of Victoria, but were felt most acutely by middle-aged workers, vulnerable socioeconomic groups (Victorian Women's Trust et al. 2000, 5) and regional communities where cuts to government services depleted economic confidence and social capital (Budge 2001, 375).

The transport sector was a key target of Kennett's public sector reforms. His government authorised the construction of CityLink (1996-2000)—Victoria's first privately-owned and operated toll road—and privatised public transport by selling the regional rail network and franchising metropolitan and regional passenger services (Greig 2002, 238). Passenger services to Shepparton and Warrnambool were the first to be franchised in 1993 (Abbott and Cohen 2016, Table 4b) and services to Ballarat, Bendigo, Geelong, Latrobe City and Albury-Wodonga were franchised in 1999 when the government executed contracts for the metropolitan passenger network (Parliament of Victoria 2002a, 133). Additionally, numerous railway lines servicing outlying regions closed and passenger services to Horsham, Mildura, Ararat, Bairnsdale and Leongatha were discontinued (RFI 2016, 33). Figure 15 maps the geography of regional rail closures and passenger service privatisations in Victoria between 1992 and 1999. The map illustrates how policymakers sought to increase the efficiency of Victoria's sprawling regional network by rationalising the extent of line infrastructure and segregating freight and passenger traffic. The latter objective was informed by an expanding freight task (Williams, Greig and Wallis 2005, 26) and desire to connect grain and dairy producing regions around the state to overseas markets via the Port of Melbourne (see Victorian Government 2007a, 23).

Protests broke out across Victoria as the Kennett government rolled-back public services (Costar 1999, 92). The social impacts of the reforms were felt acutely in regional Victoria where private-sector investment retreated in lock-step with public investment (Parliament of Victoria 2002a, 24-29). As Melbourne's economy emerged from recession in the late-1990s, a belief took hold among regional communities that privatisation of the rail network had contributed to lingering economic stagnation (Parliament of Victoria 2002a, 151-70). Rural electors began to question their political allegiances due to the perception that leaders of the National Party—the junior Coalition partner—had acquiesced to harsher elements of the Liberal Party's reform agenda (Costar 1999, 93-94, Murray 2007, 210). Austerity had forged a geography of political discontent that spanned metropolitan and non-metropolitan regions and Labor capitalized on this while in opposition. In the lead up to the 1999 state election it pledged $450 million to restore regional passenger services (Bessant 1999) including $80 million to build a Regional Fast Rail (RFR) network connecting Melbourne to the regional cities of Ballarat, Bendigo, Geelong and Latrobe (see Figure 16) and to study options to reopen railway lines closed by the Coalition (Davidson 1999).

Figure 15. Rail closures and privatisations, Victoria, 1992 to 1999



Note: Table 7 lists the data sources used in the regional and local maps.

"An unprecedented revolt" against the Kennett government in regional electorates allowed Labor to form a minority government with the support of several regional independent MPs (Costar and Hayward 2010). Prior to the election, Hon. Steve Bracks MP, the new Victorian Premier, and Hon. John Brumby MP, the Minister for State and Regional Development, cultivated their familial and professional connections to the regions including to electors in Ballarat and Bendigo, which proved decisive in Labor's victory (see Murray 2007, 210, The Age 2004). The "rural backlash" that instigated Labor's regional policy turn and brought down the Kennett government (Murray 2007, 212) reflected a shift in regional politics that eroded the geographic and economic divides between communities in metropolitan and non-metropolitan regions. More broadly, the backlash illuminates the crucial role of regional politics in rail network development in Victoria. As Trevor Budge AM, an academic planner in regional Victoria, observed:

> The Kennett era's most profound effect on rural and regional communities was that many people broke with tradition and turned in substantial numbers

to non-conservative parties and independents . . . a complete contrast to the 1980s and early 1990s when state governments essentially rose and fell according to the way in which the electorate in the south-east of Melbourne voted. (Budge 2001, 375)

Figure 16. Regional Fast Rail, Victoria, 2000-06

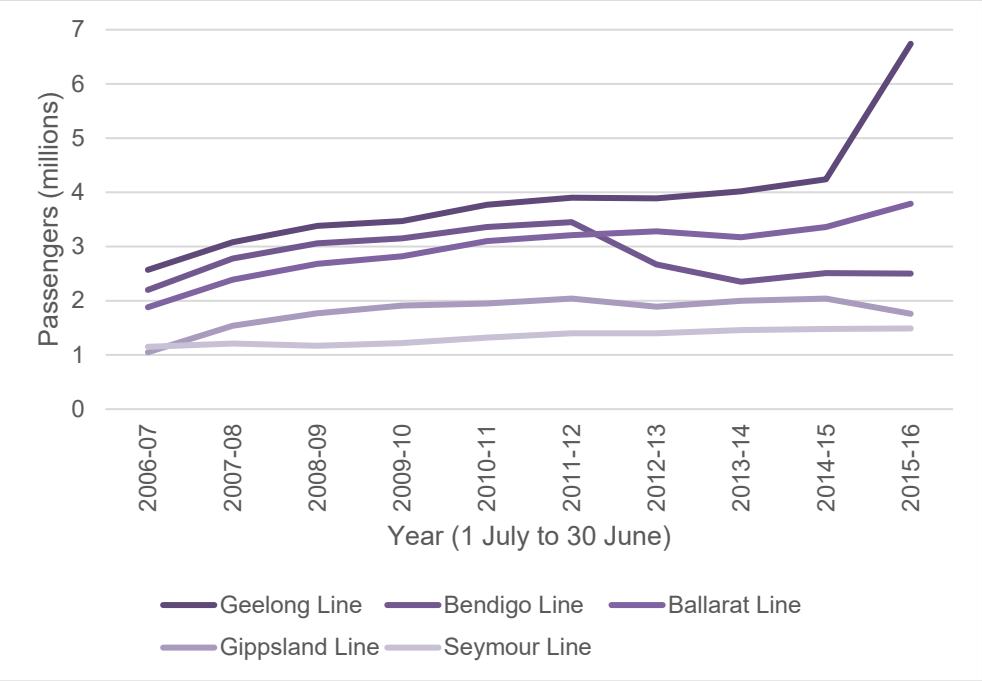


Note: Table 7 lists data sources used in the regional and local maps.

Additional evidence of a shift in regional politics can be found in the geography of grassroots campaigns that formed ahead of the 1999 Victorian election. Peak community groups had grown "increasingly uneasy" about the impacts of Kennett's reforms including "a widening gap between the rich and poor, continued high unemployment, reduced standards of community service [and] increased strain on local communities, especially in regional areas" (Victorian Women's Trust et al. 2000, 5). This led the Victorian Women's Trust (VWT), Brotherhood of St Lawrence and allied social justice organisations to establish *The Purple Sage Project* with the purpose to document the impacts of neoliberal reforms on social cohesion and democratic institutions (VWT et al. 2000, 6). The project is noteworthy for the traction it gained in non-metropolitan regions,

where community organisers held ‘kitchen table conversations’ to hear the concerns of disenfranchised regional communities and understand “their preferred vision of the future” (VWT et al. 2000, 13). Their findings added weight to Labor’s package of public transport reforms including the promise to invest in regional passenger rail and to institute minimum service provision guarantees (see VWT et al. 2000, 78).

Table 13. V/Line passenger rail patronage by line, 2006-07 to 2015-16



Data sources: Patronage numbers for 2006-07 to 2011-12 taken from V/Line (2012, 14) Annual Report 2011-12 and patronage numbers for 2012-13 to 2015-16 taken from V/Line (2016, 12) Annual Report 2015-16.

Construction of RFR began in 2003 after the Victorian government resumed ownership of the regional rail network and established V/Line, a state-owned corporation, to operate regional passenger services. New diesel-electric ‘VLocity’ trains commenced operations between Melbourne to Bendigo in 2005 (AAP 2005) and between Melbourne and Geelong, Ballarat and Latrobe City in 2006 (AAP 2006). Initially, the Victorian government planned to sell the RFR network after completion (Williams et al. 2005, 44), but the railway infrastructure and train operations have since remained in public hands. The reasons for this outcome are complex and involve a range of technical, economic and institutional factors (see Greig 2002, The Age 2003, Schrader 1999), but regional politics appears to be a salient factor. Public investment in RFR resulted in considerable patronage growth (see Figure 13) because upgrades to the railway infrastructure and rolling stock dramatically improved service frequency, quality and reliability (The Age 2005). RFR also contributed to a “massive boost in confidence in regional Victoria” (Budge 2013, 27)

as many regional cities connected to the network experienced an uptick in population and employment growth that was not experienced by other regional cities (see Table 14, Table 15, Figure 17 and Figure 18).

5.4. Regional governance

If Kennett's neoliberal reforms precipitated a shift in the political geography of Victoria that engendered solidarity between communities in metropolitan and non-metropolitan regions, then Labor's 1999 election win precipitated a shift in its regional geography that restructured the spatial economy of Melbourne. Labor's RFR and associated "accelerated" regional development programs marked-out a "broad arc" of cities targeted for economic (and political) integration into the metropolis (Victorian Government 2002, 35, see also Victorian Government 2010, Map 1). Notably, both programs informed the geographic parameters of Hume because the regional cities of Shepparton, Wangaratta and Wodonga fell outside of the extended metropolitan area conceptualised by government planners. Moreover, population and employment did not grow as strongly in these cities compared to other cities connected to the RFR network. The economics and politics of regional rail investment in Victoria thus supplies important context to this investigation into the relationship between high-speed rail planning in Australia and the regional integration of Hume.

The Hume Region was initially chosen as the study area for this investigation because it was the only non-metropolitan region in Victoria proposed to be connected to East Coast HSR (see AECOM et al. 2013a). As the research progressed, however, it became apparent that Hume is an ideal candidate for the research because it has been subject to several noteworthy experiments in regional governance. Hume's situation bet ween Melbourne and Sydney—Australia's two largest cities—has given impetus to numerous large-scale infrastructure projects that necessitated close collaboration between the Commonwealth and NSW and Victorian governments. Legacy infrastructures like the Hume Dam and Hume Highway sit prominently among these examples as do contemporary infrastructure projects like Northeast Line Upgrade, Wodonga Rail Bypass and Foodbowl Modernisation projects. The findings of the case analysis suggest that legacy institutions associated with historical infrastructure projects supply the foundation for governance reforms that embed contemporary projects into Hume.

5.4.1. Legacy institutions

Hume's inception as a 'region' can be traced to the establishment of AWDC (1974-2014) as part of the National Growth Centres project (1973-1976): an ambitious government program to decentralise heavy industries and urban populations to non-metropolitan regions (Pennay 2015). The National Growth Centres project was a foremost policy priority of Labor Prime Minister, the Hon. Gough Whitlam AC QC, and AWDC was lauded by the Liberal Premiers of NSW and Victoria as an exemplary model of regional governance (see Smith 2019). The Commonwealth and NSW and Victorian governments established AWDC as a joint statutory-body with powers to acquire, plan and develop greenfield sites designated for industrial development and urban expansion (Parliament of Australia 1973). The organisation was constituted by a board of three full-time members—one Minister representing the Commonwealth and one Minister representing each State government—and two part-time members representing the local communities of Albury and Wodonga (Pennay 2005, 44-49). Such multilevel arrangements were unique in the history of Australian planning because local jurisdictions on both sides of a state border were incorporated into a single organisation that is responsible for planning and delivering major projects.

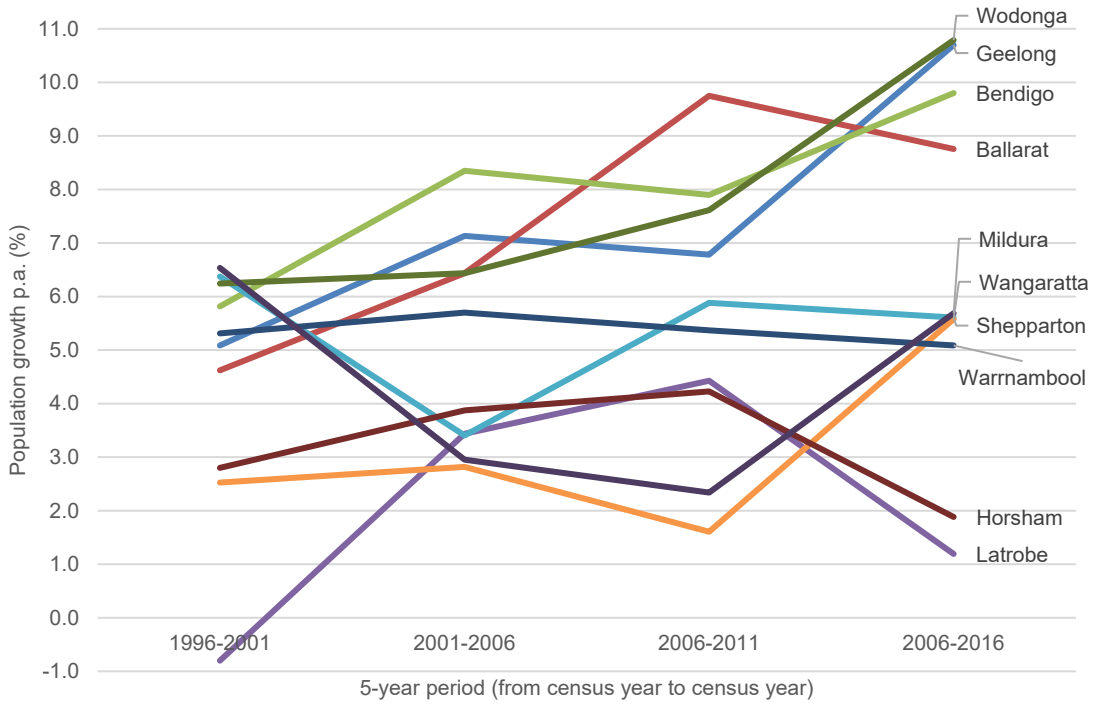
The dismissal of Whitlam's government in 1975 brought about the premature demise of the National Growth Centres project but not AWDC. Curiously, a newly elected Coalition government withdrew Commonwealth support for all growth centre projects except Albury-Wodonga where "a happy conjunction of judgment and political expediency" prevailed (Lloyd and Anderton 1990, 8). AWDC apparently survived the turmoil of the dismissal because it "operated in a low-key way, gradually generating support at the local level and building up new industrial investment" and "benefitted from stability and continuity of administrative leadership" (Lloyd and Anderton 1990, 7). The Albury-Wodonga project and AWDC did, however, eventually succumb to a rising neoliberal tide. The program drew heavily on public resources during the 1980s and 1990s, a period when Commonwealth and State government coffers were depleted by ambitious spending programs and stagnating economic growth (Lloyd and Anderton 1990, 9). The Commonwealth and NSW and Victorian governments enacted legislation in 2003 to wind-back investment in AWDC and their "experiment" in regional governance ended in 2014 when operations ceased (Albury City 2021).

Table 14. Population of regional cities, Victoria, 1996 to 2016

Regional city (LGA)	Population				
	1996	2001	2006	2011	2016
Geelong	175,409	184,331	197,477	210,873	233,429
Ballarat	76,509	80,045	85,196	93,501	101,686
Bendigo	81,338	86,068	93,254	100,617	110,477
Latrobe	67,564	67,023	69,326	72,395	73,257
Shepparton	51,902	55,210	57,090	60,448	63,837
Wangaratta	25,035	25,667	26,390	26,814	28,310
Warrnambool	27,305	28,755	30,394	32,026	33,655
Horsham	17,322	17,807	18,497	19,279	19,642
Wodonga	29,188	31,010	33,006	35,519	39,351
Mildura	45,418	48,386	49,814	50,979	53,878

Data sources: Populations for period from 1996 to 2006 taken from ABS (2007a) Time series profile table 01 and populations for period from 2006 to 2016 taken from ABS (2017) Time series profile table 01. Note: Cities organised by distance from Melbourne i.e., Geelong is nearest.

Figure 17. Population growth in regional cities, Victoria, 1996 to 2016



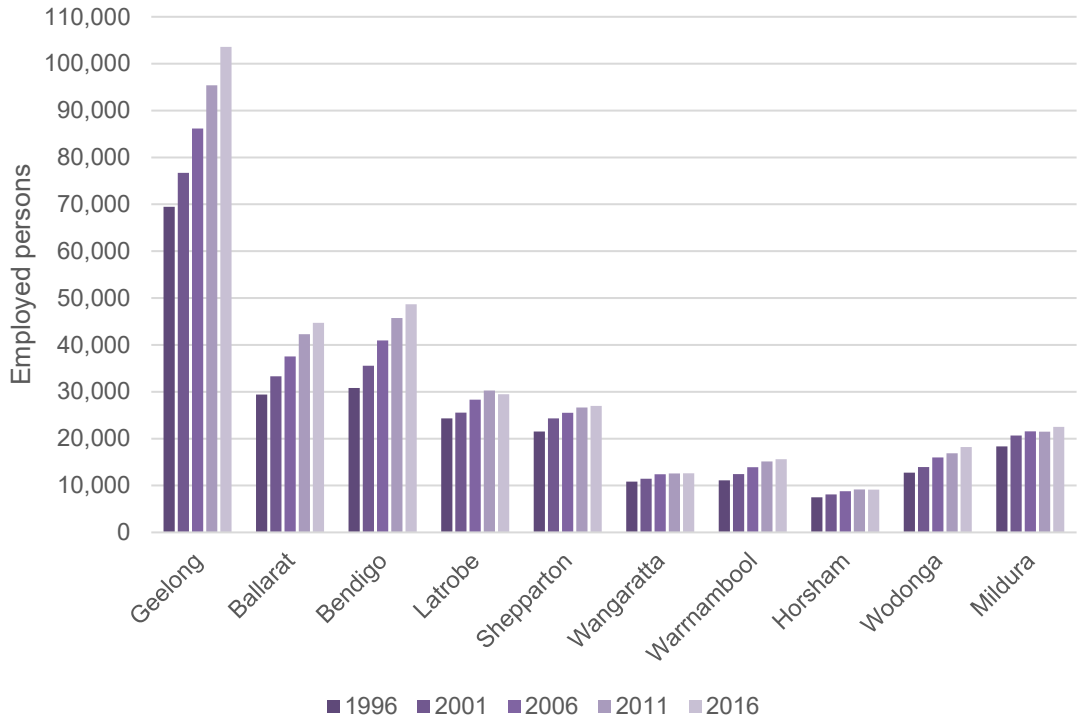
Data sources: Populations for period from 1996 to 2006 taken from ABS (2007a) Time series profile table 01 and period from 2006 to 2016 taken from ABS (2017) Time series profile table 01. Note: Population growth rates derived from data processed by author.

Table 15. Employed persons in regional cities, Victoria, 1996 to 2016

Regional city (LGA)	Employed persons				
	1996	2001	2006	2011	2016
Geelong	69,468	76,715	86,148	95,399	103,580
Ballarat	29,418	33,308	37,533	42,290	44,716
Bendigo	30,818	35,568	40,954	45,744	48,675
Latrobe	24,321	25,535	28,315	30,259	29,490
Shepparton	21,525	24,309	25,518	26,651	26,976
Wangaratta	10,830	11,449	12,414	12,579	12,616
Warrnambool	11,103	12,445	13,921	15,121	15,601
Horsham	7,488	8,104	8,776	9,176	9,111
Wodonga	12,735	13,939	15,994	16,888	18,199
Mildura	18,330	20,661	21,546	21,477	22,501

Data sources: Populations for period from 1996 to 2006 taken from ABS (2007a) Time series profile tables 24e and 24f and populations for period from 2006 to 2016 taken from ABS (2017) Time series profile tables 33e, 33f and 33h. Note: Cities organised by distance to Melbourne i.e., Geelong is nearest.

Figure 18. Employed persons in regional cities, Victoria, 1996 to 2016

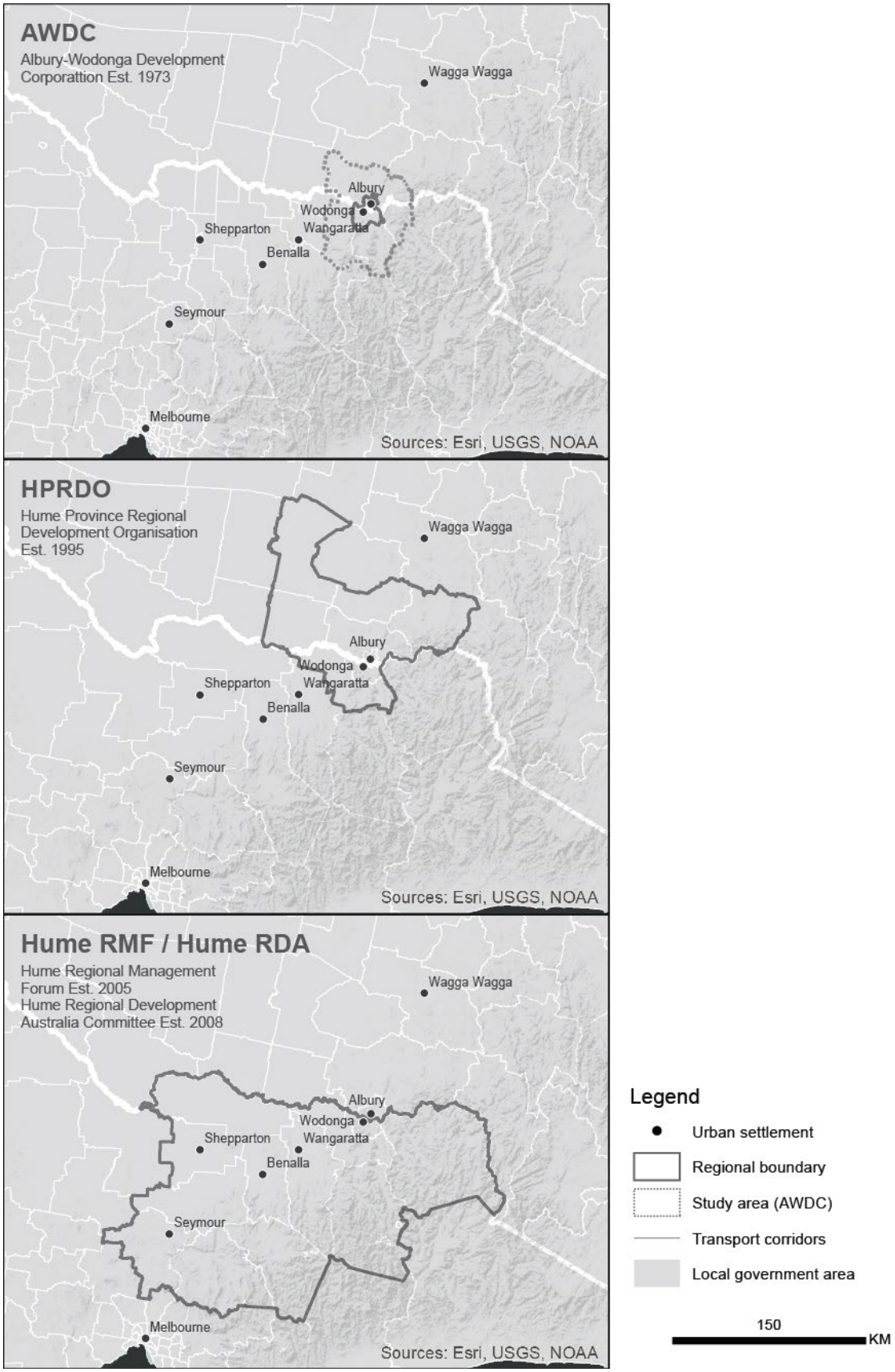


Data sources: Populations for period from 1996 to 2006 taken from ABS (2007a) Time series profile tables 24e and 24f and populations for period from 2006 to 2016 taken from ABS (2017) Time series profile tables 33e, 33f and 33h. Note: Cities organised by distance to Melbourne i.e., Geelong is nearest.

The Commonwealth government established a new institution to govern industrial development in Hume before it began the process of dismantling AWDC. The Hume Province Regional Development Organization (HPRDO) was established in 1995 to expand the region's industrial capacity by identifying new opportunities to export goods to overseas markets (Pennay 2005, 287). The organisation's focus on economic development and growth was reflected in its corporate governance structure, which included representatives of business and industry groups in addition to Commonwealth, State and Local government representatives (Pennay 2005, 287). The impetus for HPRDO can be traced to *Working Nation*, a Commonwealth policy to expedite Australia's recovery from economic recession that used "active measures to get the long term unemployed into work as well as introducing extensive reforms to labour market assistance arrangements" (O'Neill 1995, 1). In the words of its architect, the Hon. Paul Keating (1994, 3913), a Labor Prime Minister, *Working Nation* was "a statement of policy on employment and growth. It takes the view—the incontestable view—that economic growth is the key to employment growth." Keating's principal objective was to embed market-based mechanisms into Commonwealth employment policy; however, the policy also gave governments a framework to introduce market-based mechanisms into other policy domains (Jose and Burgess 2005) including regional economic development (Kelly, Dollery and Grant 2009).

The boundaries of Hume were tested and stretched throughout this two-decade period of institutional experimentation. From Hume's inception as the Albury-Wodonga Growth Centre project in 1973, to the establishment of AWDC in 1974 and then HPRDO in 1995, the geography of the region has shifted in relation to different paradigms of regional policy. Figure 19 maps this evolution over an extended period—from 1973 to the starting point of this study in 2008—to reveal a portrait of a region that is constantly under construction. AWDC was decidedly urban in its focus, centred on the planning and development of new commercial and industrial areas, civic institutions and residential estates connected to existing urban areas (Neilson 2008, 86). The activities of government planners initially encompassed a larger geographic area that included surrounding townships, but the geographic scope of the project was reduced to Albury and Wodonga once it moved to the implementation phase (Pennay 2005, 54-59). The planning activities of HPRDO, on the other hand, were underpinned by a set of neoliberal imperatives that "[required regions] to integrate their local economies with the national and international economy" (Paul Keating PM 1994, 5920). The boundary of HDPRO thus 'fixed' local and regional institutions onto a globalised set of economic and political imperatives.

Figure 19. Evolution of the Hume Region, 1973 to 2008



Note: Table 7 lists data sources used in the regional and local maps.

5.4.2. Hume Regional Management Forum

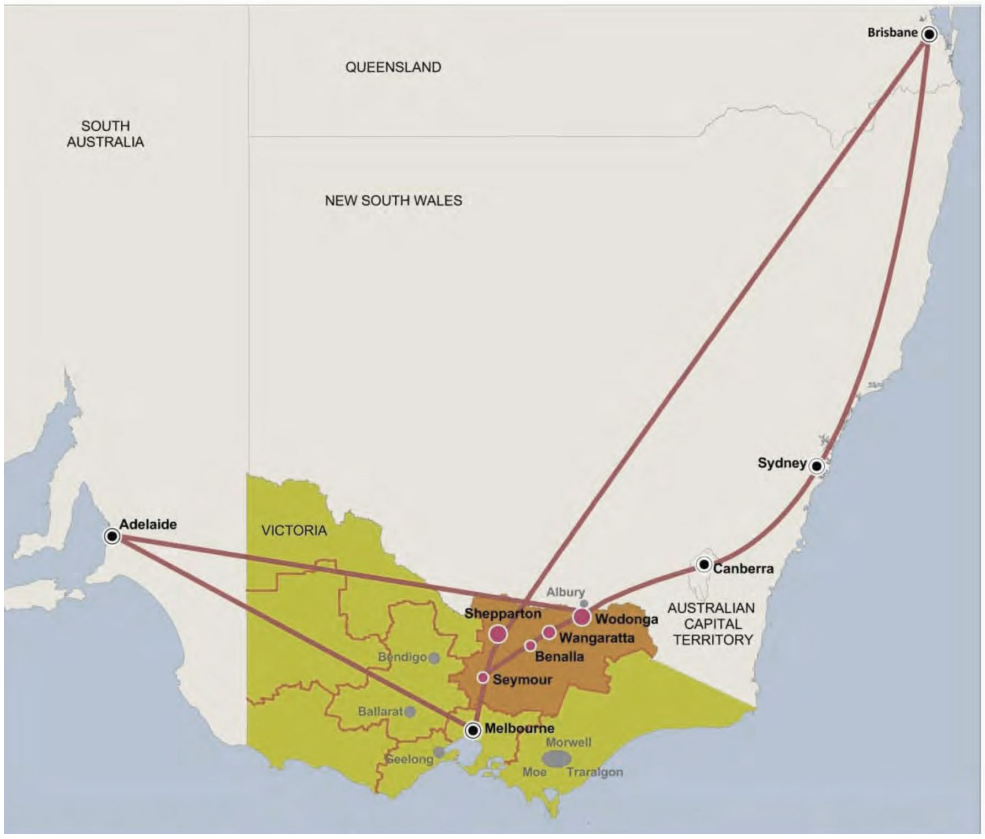
The establishment of Hume RMF in 2005 adds another chapter to this brief history of state spatial planning in Hume. The Victorian government signalled its intention to overhaul regional institutions in *A Fairer Victoria*, a policy statement that aimed to reduce socioeconomic disadvantage across the state (DHS 2005). Despite the apparent economic success of Labor's RFR and regional development programs, the government recognised that "across Victoria, some people and places continue to face significant barriers in gaining access to the opportunities they need to build a better future for themselves, their families and their communities" (Victorian Government 2005, 1). According to the architect of *A Fairer Victoria*, the Deputy Premier, Hon. John Thwaites MP, the policy "[amounted] to a 'third way' . . . of doing social welfare—a repudiation not just of the 'market forces' approach of the Kennett government but of the 'central planning' approach that has characterised much left-wing thinking" (John Thwaites MP paraphrased in Austin 2006). Accordingly, new models of government service delivery would be governed by a set of neoliberal principles that promoted bureaucratic efficiency, individual choice and regional self-sufficiency (Victorian Government 2006, 5-6).

The Victorian government established a network of eight Regional Management Forums (RMFs) to "bring state and local government together to identify their region's most pressing issues, and to provide new and collaborative solutions" (Hon. Candy Broad MP quoted in Parliament of Victoria 2006, 2874). While acknowledging that "greater community engagement requires governments to work in close partnership with communities, listening to their concerns, improving the capacity of individuals and communities" (Victorian Government 2005, 24), RMFs were structured as "a high-level administrative network . . . to facilitate collaboration between State agencies and departments and local government areas" (Wear 2008, 6). A managerialist structure brought CEOs of regional LGAs and heads of State government agencies and departments together to "identify and address critical issues facing the region; encourage cooperation between departments and with councils; and work with statutory authorities, businesses and local communities to set and deliver key priorities" (Wear 2008, 3). To promote these objectives, the Victorian Government (2006, 80) restructured the boundaries of regional divisions within its agencies and departments to align with the boundaries of each RMF.

Additional critical light is cast on government overtures to community welfare and collaborative governance when the geographic and institutional parameters of Hume RMF are situated within a national context. Regional transport policies put in place by

the Victorian government at the beginning of the twenty-first century positioned Hume as a peripheral region relative to other non-metropolitan regions connected to the RFR network. However, a different positionality and geography emerges when Hume is viewed from the perspective of national transport policies introduced by the Commonwealth government to promote industrial development and economic cohesion between State and Territory jurisdictions. Hume is situated at the cross-roads of the NLTN—a system of road and freight rail infrastructures that connect major cities along Australia's eastern seaboard—and its "economy is driven by access to high quality dry land and irrigated land for agriculture, a quality workforce *and its strategic location in the Melbourne-Sydney-Brisbane national freight corridor*" (Hume RMF 2010a, 33, emphasis added). Figure 20, which features prominently in state spatial strategies, situates Hume within a national and global context by establishing a direct connection between the geography of Hume RMF and the geography of the NLTN. The Victorian government's decision to 'fix' the boundary of Hume on the NLTN must therefore be understood in the context of Commonwealth policies to develop Australia's road and freight rail networks (see Australian Government 2004).

Figure 20. Hume in national context



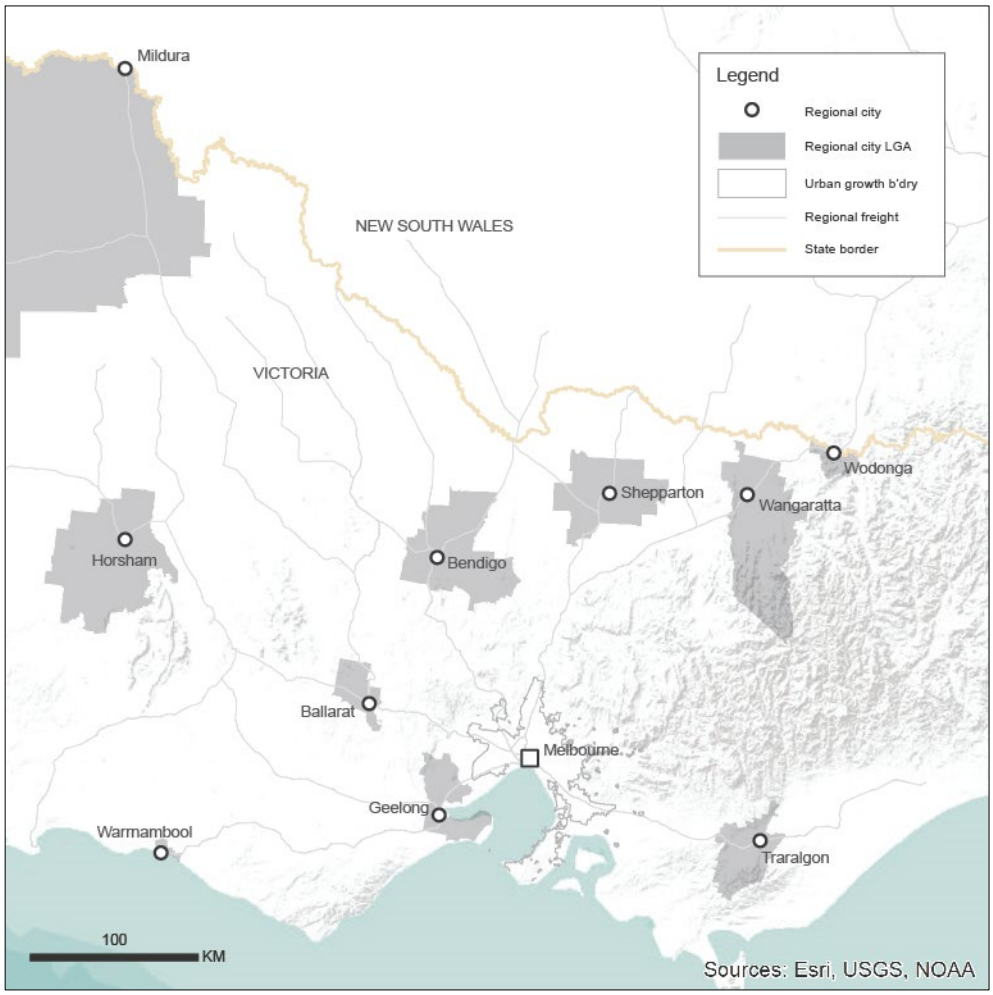
Source: Hume RMF (2014, Map 3) Hume Regional Growth Plan.

5.4.3. Other relevant institutions

Three additional governance reforms complete the multilevel institutional architecture of state planning in Hume. The first reform was Regional Development Australia (RDA), an economic development initiative established by the Commonwealth government in 2009 to promote "a more strategic and responsive, national approach to regional development" (RDV 2009, 7). RDA Committees would "build on and replace" regional organisations like HPRDO established under Labor's *Working Nation* initiative (RDV 2009, 91). In Victoria, RDA Committees adopted an entrepreneurial structure to complement the managerialist structure of the RMFs. Representatives of business, industry and community groups hand-picked by Commonwealth and State government Ministers were asked to provide a "regional voice" to government through their networking and community engagement activities (RDA 2009) and to act as a "conduit" for information about government programs (RDV 2009, 90). RDA Committees also engaged in strategic planning activities including the development of "regional business growth plans" and "social inclusion strategies, which bring together and support all members of the community" (RDA 2009).

The second institutional reform that is relevant to the research is the creation of Regional Development Victoria (RDV) in 2003, a statutory agency established by the Victorian government to facilitate business and employment growth in non-metropolitan regions (Parliament of Victoria 2002b, 3). RDV was set up under the direct control of the Minister for State and Regional Development, John Brumby, to centralise the development of industrial policy and coordinate the implementation of infrastructure investment programs (see RDV 2004, 5-8). The structure of RDA Committees in Victoria provides one example of how RDV centralised regional governance. RDA Committees were funded by the Commonwealth government but RDV (2009, 91) was responsible for administering and coordinating their activities. Another important function of RDV is administration of the Regional Infrastructure Development Fund (RIDF), a multi-million public account established by Labor in 1999 to provide financial assistance for capital projects in the transport, education, information technology and tourism sectors (Parliament of Victoria 1999, 3). The Wodonga Logic Intermodal Hub exemplifies the kinds of economic infrastructure supported by the RIDF—capital projects that facilitate "investment, employment and export opportunities in regional Victoria" (RDV 2004, 7).

Figure 21. Regional Cities Victoria



Note: Table 7 lists data sources used in the regional and local maps.

The third and final institutional reform was Regional Cities Victoria (RCV), an "alliance" of Mayors and CEOs from the ten most populous LGAs in regional Victoria (see Figure 21) that formed in 2000 to "represent the collective interest of the regions" (RCV 2019). In many respects, RCV formed in reaction to the rolled-back neoliberal reforms of the Kennett-era and the corrosive effects of interregional competition on regional cohesion in Victoria. RCV "members work co-operatively on issues and projects of mutual interest that affect regional cities as well as the whole state of Victoria" (RCV 2019). Notably, "the need for improvements to transport corridors and connections within, to, and between regional cities and Greater Melbourne" is one of its "highest priorities" (RCV 2017b). Although RCV's mission is decidedly neoliberal in character—focused on fiscal responsibility, economic growth and sustainable development—it is not a forum for advancing the interests of individual cities. Its vision of "enhanced liveability through sustainable growth" is underpinned by an ambition to diversify regional economies and labour markets and to "secure equitable investment in infrastructure and

services" (RCV 2021). These objectives are framed by discourses on spatial equity and justice that find expression through RCV's development vision:

> Regional cities are at the heart of regional Victoria and by improving their infrastructure and liveability, they help to grow and support wider regional and rural communities . . . As regional hubs, these cities support surrounding districts through the provision of education, health, financial, transport and social services, as well as retail, sport and recreation, cultural and tourism amenities and activities. (RCV 2015)

5.5. Current state spatial strategies

In Hume, the vision for sustainable development is underpinned by numerous directions for land use and transport planning that aim to promote positive outcomes across diverse policy areas including industrial development and employment (Hume RMF 2010a, 33), education and health (Hume RMF 2010a, 22; 46) and protection of the natural environment and urban heritage (Hume RMF 2010a, 24). The preceding section examined the institutions set up by governments to integrate the goals of state and non-state actors with a stake in these policy areas. This section examines the corresponding set of spatial strategies formulated by government planners to promote the sustainable development of Hume.

Hume RMF produced the *Hume Strategy for Sustainable Communities* (the Hume Strategy) and *Hume Regional Growth Plan* to articulate the development needs of different communities within the region and to supply a spatial template for growth. In the documents, State planners adapted numerous tropes from European spatial planning to articulate their vision and objectives for regional development including "balanced functionality" (Hume RMF 2010a, 46), "equity of access" (Hume RMF 2010a, 8) and "sustainable growth" (Hume RMF 2014, 36). Furthermore, "key concepts" like "networked settlements" and "equity of mobility" (Hume RMF 2010a, 22) hark qualities of polycentric urban regions. Nevertheless, the vision of Hume "as a multi-centred region within the context of a multi-centred state" (Hume RMF 2010b, 3) appears optimistic considering the obstacles to integrated planning identified in the preceding sections. Hume's status as a peripheral region—geographically and politically distant from metropolitan Melbourne—has exacerbated institutional obstacles to effective policy implementation. Accordingly, this section examines the 'actually existing' directions for land use and transport integration in Hume—the foundations for sustainable regional

development according to policymakers—to understand whether the spatial strategies join up across different policy domains.

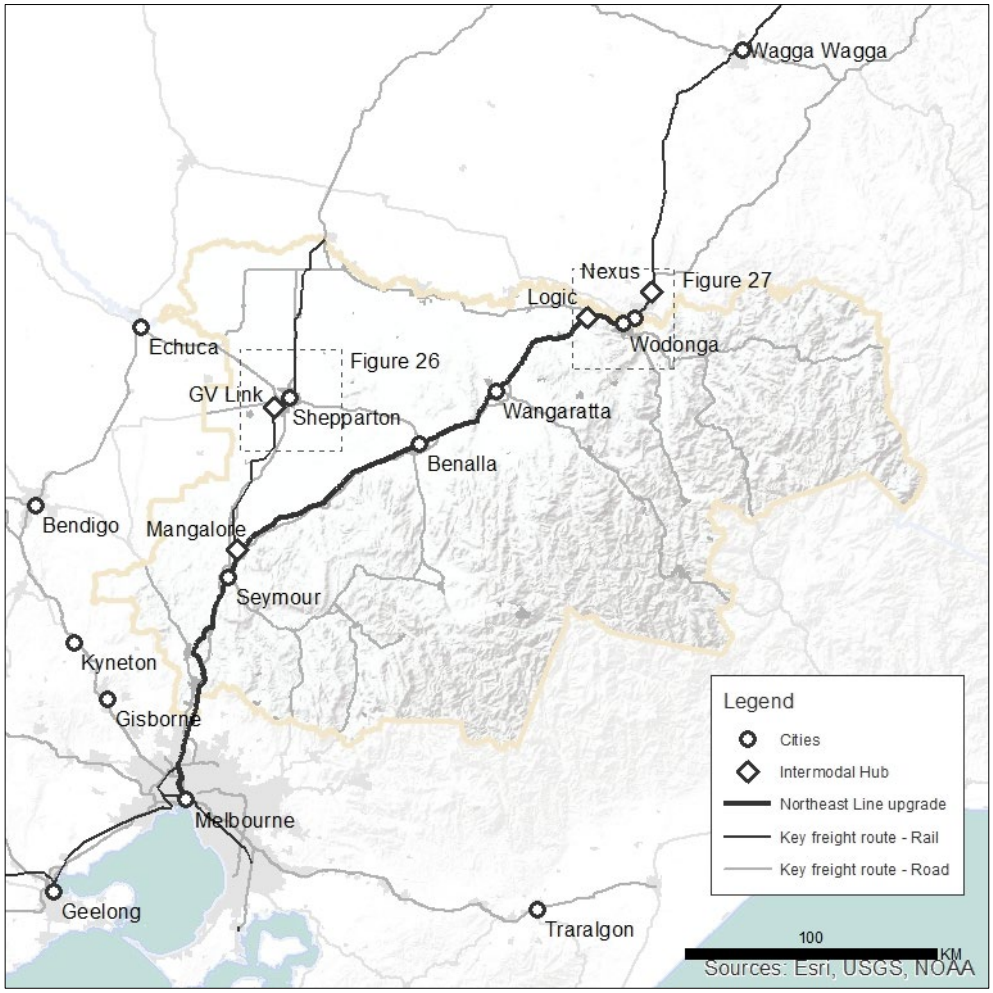
In Hume, government planners aim to promote land use and transport integration by targeting urban investment towards populated places; however, several spatial strategies appear to undermine this goal. Strategies governing the growth of regional cities and regional centres provide the clearest examples of this. On one hand, planners adopt policies associated with compact city development to promote the densification of urban centres. The inner-urban areas of Benalla, Shepparton, Wangaratta and Wodonga are designated 'infill and urban renewal sites' (see Hume RMF 2014, 43; 48; 55) where higher residential densities and mixed-use forms of development are proposed to enhance walkability, dwelling-type diversity and the commercial viability of central urban areas (see Hume RMF 2014, 39-40). On the other hand, these objectives sit in tension with strategies to increase the supply of affordable housing. Planners designate large greenfield sites on the peripheries of the regional cities as 'key residential growth fronts' to accommodate low-density suburban development (see Hume RMF 2014, 43; 48; 55). However, the strategy is likely to undermine key sustainability objectives as many of the greenfield sites are comparable in size to established urban areas and disconnected from existing urban services.

Turning to examine transport policies in the *Hume Strategy* and *Hume Regional Growth Plan*, it is evident that government planners prioritise the development of major road and freight rail networks over the development of local and subregional transport networks that connect growth areas and surrounding townships to commercial centres. Curiously, although land use development is framed as a regional concern, the development of local public transport is framed as a problem for Local governments (see Hume RMF 2014, 61). Additionally, strategies for developing regional transport networks are general in nature compared to the strategies for developing land use. The *Hume Strategy* outlines a series of directions for transport network development that include "sustainable mobility", "integration" between different transport modes and "improved linkages" between communities across the region, but it does not specify actions or projects to achieve these objectives (see Hume RMF 2010a, 40). The *Hume Regional Growth Plan* provides some additional insights into government investment priorities but discloses very little about how individual projects will meet the stated sustainability objectives (see Hume RMF 2014, 61-67).

Sector-specific policies published by the Victorian Government give a clearer picture of current directions for transport planning in Hume. Figure 22 maps state-

significant projects in the planning or construction phases during the first decade of the twenty-first century. State planners envision that "[stronger] linkages will be developed between regional cities and centres in terms of transport, economic, social and environmental connections" (Hume RMF 2010a, 21). However, actually existing transport policies focus on the development of national freight and logistics networks. Major road and freight rail projects attached to the NLTN are prioritised for public investment while local and regional public transport networks are generally overlooked. Several transport projects noted in the map were discussed in preceding sections that examined the relationship between major infrastructure projects and processes of uneven spatial development. The remainder of this section will shed additional critical light on strategic planning for Hume by examining the local development dynamics at work in Greater Shepparton and Albury-Wodonga.

Figure 22. State-significant transport projects in Hume, circa 2008



Data sources: , Victorian Government (2008) Victorian Transport Plan, Hume RMF (2010a) The Hume Strategy for Sustainable Communities 2010-2020 and Hume RMF (2014) Hume Regional Growth Plan.

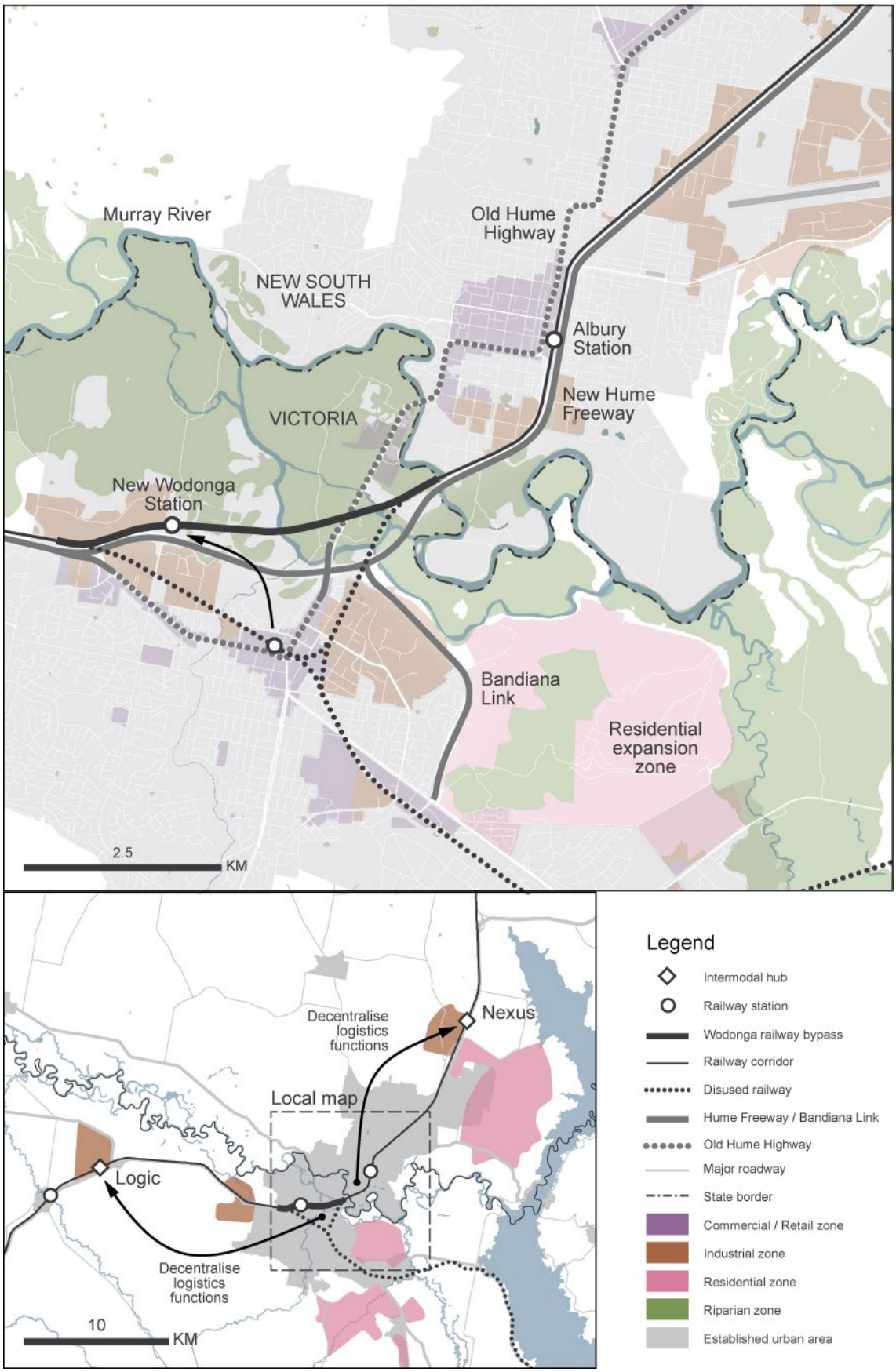
5.5.1. Development dynamics in Albury-Wodonga, circa 2008

Figure 23 maps state-significant projects in Wodonga in relation to strategic projects initiated by Local governments in recent years. The map includes the urban area of Albury, NSW, to register the strong social and economic relationship between the two cities (see BITRE 2018, 21; 56). A notable feature of the map is that connectivity between the two LGAs is mediated entirely by national infrastructure networks: the old Hume Highway, the new Hume Freeway (completed in 2007) and the North South Railway Line. This situation is not unusual for border cities in Australia; however, it is notable in the context of this research because of the influence these infrastructures exert on urban development. State-significant projects completed in recent decades supply the template for spatial growth in Albury-Wodonga. Three urban dynamics are observed in the map.

The first and perhaps most apparent dynamic is evident in large areas on both sides of the Murray River earmarked for urban expansion. Residential estates at Leneva-Baranduda in Wodonga, Victoria, and Thurgoona-Wirlinga in Albury, NSW, are in the early development stages and have a total area that approximates the size of established urban areas. These projects build on the legacy of AWDC by developing some of the 16,000 ha of land acquired by governments in the 1970s for the Albury-Wodonga National Growth Centre project. These consolidated holdings were sold to public and private interests before AWDC ceased operations in 2014 (Pennay 2013, 38-39). Nevertheless, they provide a spatial template for growth in the contemporary era. In Wodonga, for example, structure plans for Leneva-Baranduda follow a similar spatial structure to the National Growth Centre project and, in some areas, utilise trunk infrastructure installed by AWDC in the 1980s (Pennay 2005, 317, City of Wodonga 2016, 49, Michael Gobel, Participant 25). Additionally, completion of the Hume Freeway in 2007, which included construction of the Bandiana Road Link, improved access by car to residential estates at Leneva-Baranduda and enhanced accessibility across the Albury and Wodonga urban areas (Transport for NSW 2019).

A second development dynamic apparent in the map is the decentralisation of industrial functions in cities on both sides of the Murray River. In Victoria, the Logic intermodal freight hub supplies one example of a local strategic initiative that has restructured the space of the city. The Nexus industrial precinct and intermodal freight hub in NSW mirrors this development strategy. Like Wodonga Logic, Nexus occupies a large greenfield site on the urban periphery, is proximate to national and regional transport networks and was developed by Local government with financial support from

Figure 23. Strategic projects in Albury-Wodonga, circa 2008



Note: Table 7 lists data sources used in the regional and local maps.

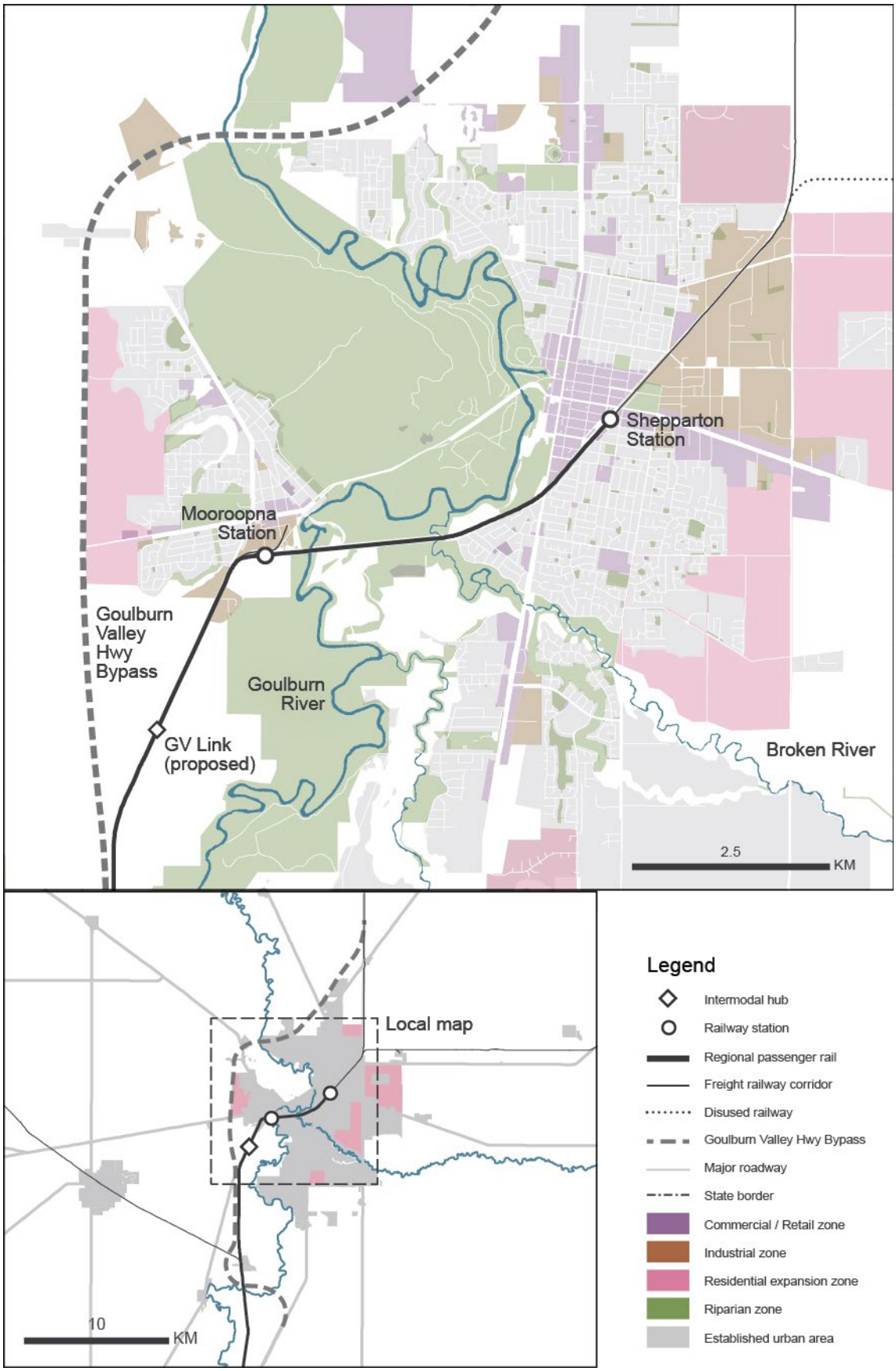
State government. Considered together, the development of Logic and Nexus indicate the context for strategic planning in Albury-Wodonga is framed by economic competition between the State governments of NSW and Victoria. Major logistics infrastructures are duplicated across State lines and governed by similar sets of multilevel arrangements involving partnerships between State and Local governments. Crucially, both local projects build upon Commonwealth and State government investments in the NLTN.

A third and final development dynamic can be observed in the regeneration of central urban areas. Central Wodonga experienced significant redevelopment after Commonwealth and State governments rerouted the North South Railway corridor and relocated container freight operations from the city centre to Wodonga Logic. These projects released numerous brownfield sites in central Wodonga for redevelopment including the construction of new civic and institutional buildings, retail developments and public open spaces. Additionally, Wodonga Railway Station was relocated as part of these works. It was moved from a site adjacent to the commercial centre to a peripheral site that is approximately 2 km to the west and not well-connected to local transport networks and land uses. The extent of spatial restructuring in Albury is less apparent compared to Wodonga because modern industry and logistics facilities developed separately to the central commercial area. Nonetheless, completion of the Hume Freeway in 2007 facilitated the revitalisation of Albury by removing heavy traffic from arterial roads bisecting the commercial centre.

5.5.2. Development dynamics in Greater Shepparton, circa 2008

Spatial strategies detailed in the *Hume Strategy* and *Hume Regional Growth Plan* suggest that government planners anticipate a similar set of development dynamics to unfold in Greater Shepparton as in Wodonga. However, delayed implementation of major transport projects has impeded the delivery of key local initiatives. Figure 24 maps state-significant projects in the Shepparton area in relation to strategic initiatives planned by the City of Greater Shepparton. The most apparent feature of the map, when compared to the map of strategic initiatives in Albury-Wodonga, is a disparity between the number of completed major transport projects. Duplication of a 10km section of the Goulburn Valley Highway south of Shepparton is the only major road project completed in Greater Shepparton in recent years. A feasibility study for the Goulburn Valley Highway Shepparton Bypass was completed in 1996 (see Arup 1996), and detailed planning and design work commissioned by the Commonwealth government in 2007 (see Hon. Peter Costello MP 2007), but the project is yet to receive funding for construction.

Figure 24. Strategic projects in Greater Shepparton, circa 2008



Note: Table 7 lists data sources used in the regional and local maps.

Government planners acknowledge that Greater Shepparton "will require significant investment in physical and social infrastructure" to support population growth (Hume RMF 2014, iv), but delayed construction of the Shepparton Bypass has impeded the delivery of local projects. Foremost among these is GV Link, an industrial precinct and intermodal freight hub that is comparable in size to Wodonga Logic. In 2008, the Commonwealth and Victorian governments committed $3 million and $2 million, respectively, to support the development of a 331 ha greenfield site connected to the Goulburn Valley Railway Line (City of Greater Shepparton 2009, 4). However, Council is unable to proceed with its plans until the Goulburn Valley Highway Shepparton Bypass is constructed. Delays to the bypass have also impeded Council's vision to regenerate the Shepparton commercial centre. State planners propose to consolidate Shepparton's status as the principal business and retail hub in the Goulburn Valley (Hume RMF 2014, 47), but Local government plans to attract private investment, including upgrades to pedestrian and cycling infrastructures, are hindered by heavy freight traffic that flows through the city centre, impacting public safety and urban amenity (City of Greater Shepparton 2008, 53).

A final point of difference between the development dynamics observed in Greater Shepparton and Albury-Wodonga is evident in the spatial structure of urban expansion projects. Areas earmarked for expansion in Albury-Wodonga have a consolidated structure because large landholdings surrounding both cities were compulsorily acquired for urban development by AWDC in the 1970s and 1980s (see Pennay 2005, 123). By contrast, expansion areas in Shepparton have a piecemeal structure because urban development is shaped by market processes that involve the ad-hoc development of high-value irrigated landholdings (see Parsons Brinckerhoff and RMCG 2008, 7). Consequently, numerous "suburban infill sites" are identified in the *Hume Regional Growth Plan* to "build-out" the established areas zoned for low-density residential development (Victorian Government 2012b, 16). The fragmented spatial structure of Shepparton's growth areas—relative to Albury-Wodonga—adds weight to the perception that spatial planning for the area is beset by institutional and political disfunction.

5.6. Summary

This chapter concludes with several observations about the nature of spatial governance in Hume that will give direction to the empirical work. The first observation is that state planning is animated by tensions between competing agendas for development of the region. These tensions were rendered most vividly by a disconnect

between the policies formulated by government planners to promote land use and transport integration and the actually existing transport projects that have shaped urban development in Albury-Wodonga and Greater Shepparton. Recent state-significant projects in Hume clearly prioritised the strategic goals of Commonwealth and State governments over the transport needs of local communities; namely, improved passenger rail connectivity and investment in local public transport networks. This disconnection warrants further investigation in the research because it suggests that regional institutions are inappropriately designed to promote land use and transport integration at the regional and local planning scales.

The second observation relates to how the geographic and institutional parameters of Hume were restructured by governments to promote new paradigms of regional policy. The case description showed that Hume is not bound by a homogenous set of geographical, economic or ecological characteristics; rather, Hume is 'constructed' by the state to promote the economic and political integration of territorial subunits. As Hume's boundaries were tested and stretched over a five-decade period, two trends emerged that are relevant to understanding the nature of spatial governance. The most apparent trend was evident in the 'upscaling' of regional boundaries from the local scale fixed on 'cities' to the interlocal scale fixed on 'regions'. Notably, regional boundaries were upscaled in parallel to spatial processes that decentralised urban and industrial functions to greenfield sites on the periphery of regional cities. A second trend was evident in the neoliberalisation of regional institutions. Although not as pronounced, this trend manifest in the creeping corporatisation of regional institutions and a proliferation of institutional sites and governing scales.

A third observation about spatial governance in Hume is that urban spatial growth is shaped by geographically specific forms of interlocal competition. In Albury-Wodonga, the development of large residential estates and the duplication of logistics infrastructures on both sides of the state border indicate that urban growth is shaped profoundly by interstate competition. The disbanding of AWDC and HPRDO and the establishment of Hume RMF supplied additional evidence of this phenomenon: the boundary of the latter institution conforms to state-lines while the boundaries of the former institutions spanned state lines. In Greater Shepparton, on the other hand, urban development was shaped more by competition with regional cities closer to metropolitan Melbourne. That regional actors in Greater Shepparton have struggled to attract public investment in critical infrastructure gives evidence of this phenomenon: investment in

strategic transport projects—including regional passenger rail—flowed instead to the inner-ring regional cities of Ballarat, Bendigo and Geelong.

The fourth and final observation is offered tentatively because it relies upon preliminary insights into the nature of local institutions that emerged in recent years to embed state-significant projects into Hume. Hierarchic multilevel structures were used to embed national transport policies into Albury-Wodonga while corporatist structures were used to embed national water policies into Greater Shepparton. The growth dynamics observed in both cities also resonated with the form and character of local institutions. Spatial development in Albury-Wodonga was shaped more by the Commonwealth and NSW and Victorian governments while in Greater Shepparton it was shaped more by market forces. The presence of local governing cultures in Albury-Wodonga and Greater Shepparton and the prominence of local institutions in planning for recent state-significant projects indicates that regional actors in Hume could play an important role in high-speed rail planning.

(9,840 words excl. tables)

Chapter 6. Geographic analysis: a new geographic fix for Hume?

Chapter 6 augments the institutional analysis by exploring the spatial geographies of high-speed rail planning in Hume. It examines the planning strategies and potential urban effects of East Coast HSR, the CLARA Plan and InterCity Blueprint to address the second research question: to what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume? (RQ2). The opening sections use qualitative analytical techniques to understand how well each proposal aligns with government plans and regional policies. Maps, diagrams and promotional images produced by project planners are studied to assess the level of spatial connectivity between station sites and regional settlement systems obtained by each proposal. The next two sections use quantitative analytical techniques to understand the regional connectivity and spatial accessibility impacts of different network planning strategies. These sections enlist concepts of spatial equity and regional cohesion to understand the potential influence of high-speed rail on settlement system development. In closing, findings from the qualitative and quantitative analyses are synthesised to discern the 'geographic fix' advanced by each proposal.

6.1. Corridor planning and station location strategies

The literature review found that strong connectivity between station sites and regional settlement systems is a prerequisite for integrated high-speed rail planning (see Chapter 2). Crucially, the physical relationship between the new station infrastructure and existing public transport networks and land use systems has significant implications for the development of non-metropolitan regions. The purpose of the analysis in this section is to assess the levels of spatial connectivity obtained by East Coast HSR, the CLARA Plan and InterCity Blueprint. The strategies formulated by network planners to integrate the station sites into Hume are studied to understand whether they are likely to promote balanced patterns of spatial growth. The analysis also gives preliminary insights into the level of institutional integration obtained by each proposal because the relationship between the station sites and state-significant projects is considered.

6.1.1. East Cost HSR

The spatial strategies formulated by network planners for East Coast HSR are detailed in two studies. The first study, published by the Commonwealth government in July 2011, established the overall network structure by designating five 'nodes' along the

eastern seaboard. Brisbane, Sydney, Melbourne and Canberra were selected for their potential to generate strong demand for interstate and interregional travel and Newcastle, NSW, was selected for its potential to generate strong demand for high-speed commuter services to Sydney (see AECOM et al. 2011, v). Network planners then developed four hypothetical 'base corridors' that connected each node in a maximally efficient line and sixteen 'potential corridors' that supplied different options to integrate intermediate regions into the network (see Figure 25). The geographic structure of the NLTN and travel demand characteristics of each intermediate region informed the alignment of the sixteen corridor options (see AECOM et al. 2011, 58).

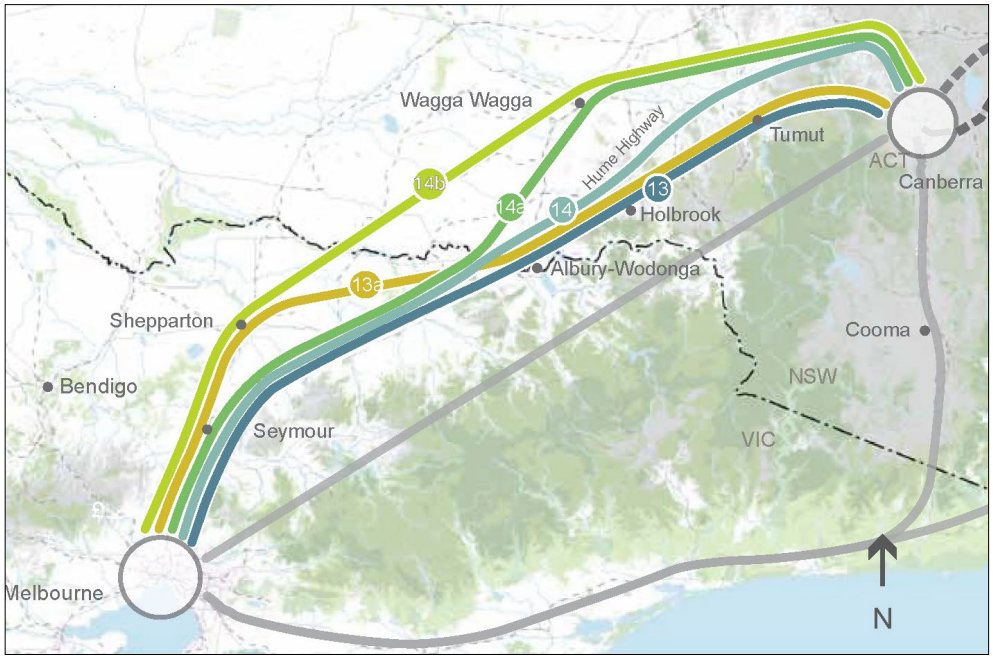
Figure 25. East Coast HSR base corridors and corridor options, 2011



Source: AECOM et al. (2011, Figure 3.4) High Speed Rail Study: Phase 1 Report.

Figure 26 illustrates five options to integrate East Coast HSR into Hume. To reduce the number of options from five to one, network planners used a qualitative assessment framework to compare the advantages and disadvantages of each corridor against the hypothetical base corridor. Economic considerations such as operator and user benefits and capital costs featured prominently in the assessment framework, but criteria highlighting social, environmental and strategic considerations also received considerable attention (see AECOM et al. 2011, Table 4.9). Consequently, during the assessment process, the maximally efficient line connecting Canberra to Melbourne—traversing the Hume Region—deviated to integrate more regional cities into the network as planners reasoned the potential social and economic benefits of increased regional connectivity outweighed the disbenefits of higher capital costs and slower travel-times between major cities. The option connecting Albury-Wodonga to Wagga Wagga (14a) outperformed other corridors across all assessment criteria, but planners also determined the corridor connecting Albury-Wodonga and Shepparton (13a) to be economically advantageous (see AECOM et al. 2011, Table 4.9). Consequently, the former option was included in the short-list of corridors recommended by network planners and the latter option for a 'Shepparton deviation' was earmarked for investigation (see AECOM et al. 2011, 95).

Figure 26. East Coast HSR corridor options, Canberra to Melbourne, 2011



Source: AECOM et al. (2011, Figure 4.13) High Speed Rail Study: Phase 1 Report.

The resolution of planning analysis increased in the second and more detailed study published in April 2013. The first study fixed the scale of analysis to the 'intermediate region'—a geography defined by network planners as the area in between two network

nodes—but the scale of analysis adjusted in the second study to approximate the boundaries of administrative regions along the corridor. This shift in scale fixed corridor planning in regional Victoria to the geographic boundary of Hume (see Figure 27). Planners did not explicitly reference the Hume Region in the second high-speed rail study. It is clear, however, from the geographic extents of maps and diagrams, and the spatial strategies formulated by network planners, that current directions for transport network development and land use change in Hume informed corridor planning directly.

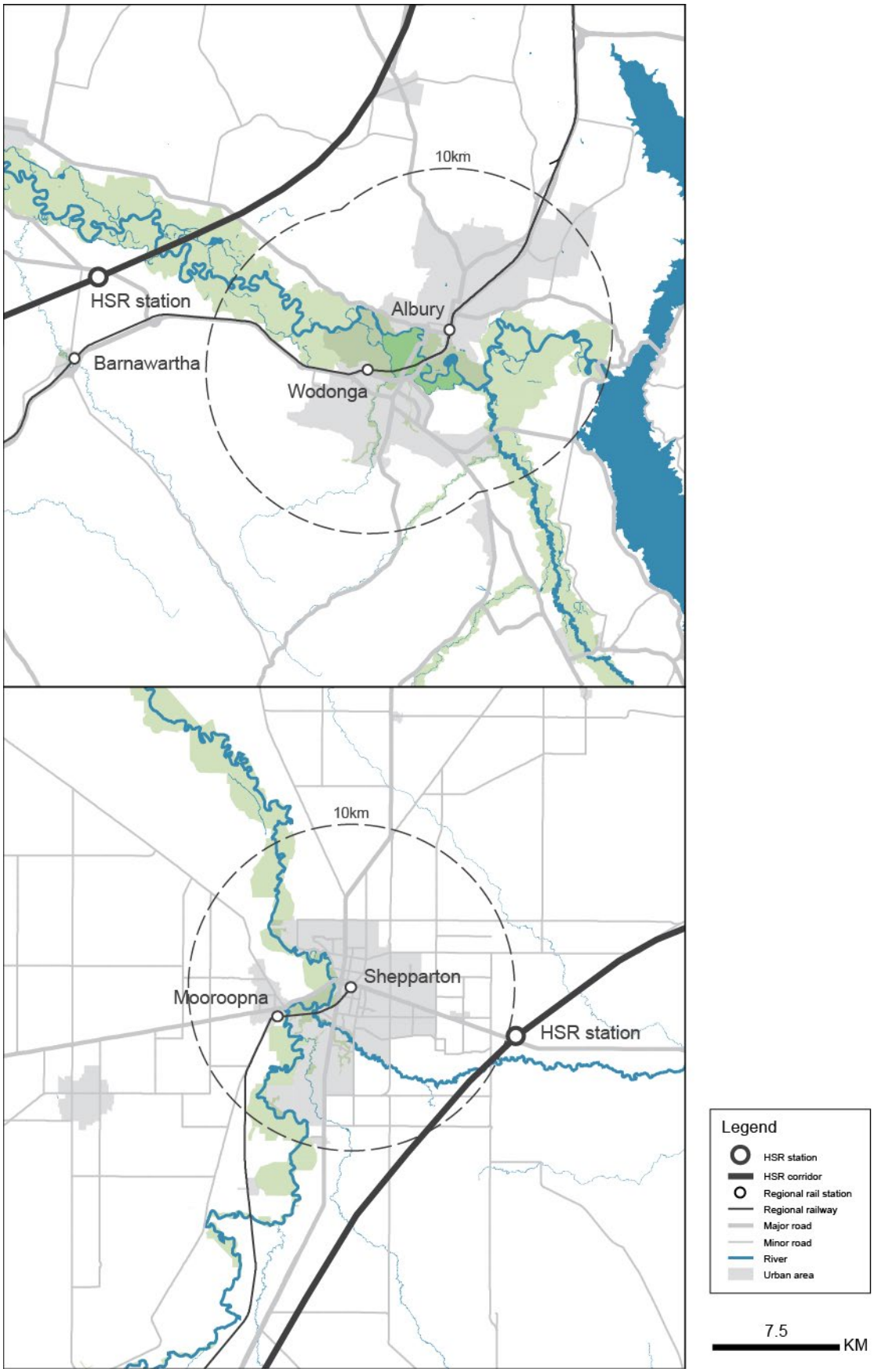
Figure 27. East Coast HSR preferred corridor alignment, Hume Region, 2013



Source: AECOM et al. (2013a, Figure 4-38) High Speed Rail Study: Phase 2 Report.

Network planners proposed to situate the high-speed rail stations approximately 10 km east of the commercial centre of Shepparton and approximately 20 km west of the commercial centre of Wodonga. Both stations are on greenfield sites (see Figure 28) where public transport connections are weak and walking and cycling infrastructures non-existent. Planners proposed to connect each station to its host city and surrounding rural townships using state highways and the regional bus network (see AECOM et al. 2013a, 294); however, it is difficult to argue the stations are well-connected to local land uses because they are detached from established urban areas and inaccessible by active transport modes. As discussed in the introductory chapter, the station location strategies developed by network planners for the eleven "regional through stations" (see AECOM et al. 2013a, 291) are likely to increase car dependency in non-metropolitan regions (see Chapter 1). This planning issue is foreshadowed by the number of car spaces estimated to be required at each station in Hume: 2,400 spaces are planned for the station servicing

Figure 28. East Coast HSR stations sites, Albury-Wodonga and Shepparton, 2013



Notes: East Coast HSR station locations based on AECOM et al. (2013b) High Speed Rail Study: Phase 2 Report. Appendix Group 3 - Preferred HSR Alignments.

Shepparton and 4,600 spaces are planned for the station servicing Albury-Wodonga (see AECOM et al. 2013a, Table 5-2).

It could be argued that East Coast HSR is integrated with current directions for spatial planning in Hume even though the proposed station sites are not well-connected to existing urban areas or public transport networks. In Wodonga, for example, the decision to locate a station near the Logic intermodal freight hub (see Figure 28) could promote the directions for urban growth anticipated by government planners; specifically, the decentralisation of industrial functions to peripheral sites and expansion of the existing urban area through low-density suburban development. The proposed station site could also complement recent public investments in national road and freight rail networks by supporting the development of Logic. Network planners justified the decision to locate a station servicing Albury-Wodonga on the Victorian side of the border by arguing that "alignments and stations to the north and east of Albury would have significant impacts on the community" (AECOM et al. 2013b, 190). The grounds for these arguments will be interrogated in the institutional analysis because it is evident that political considerations also factored into the final decision. Nevertheless, it is sufficient at this stage of the analysis to note that a station site near Logic would be likely to exacerbate planning issues associated with interstate competition if it is not well-connected to the regional public transport network.

The example of Shepparton resembles that of Wodonga because the proposed station site is not well-connected to existing urban areas or public transport networks. The peripheral location selected by network planners would also be likely to promote decentralisation of industrial functions and the outward growth of low-density suburban development. However, in contrast to the Wodonga example, where the proposed station has a strong relationship to the Logic intermodal freight hub, the station site in Shepparton has no apparent relationship to a state-significant project (see Figure 28). Consequently, in years following publication of the second high-speed rail study, the City of Greater Shepparton developed a suite of local strategic initiatives to complement the development of high-speed rail. Foremost among these initiatives was a proposal to relocate the local airport from a site inside the Shepparton urban area to a site near the proposed station site (Moir 2017, 2018, Peter Harriott, Participant 10). Council also worked with local business and industry groups to develop plans for a new art museum, university campus extension and hospital redevelopment (see City of Greater Shepparton and Committee for Greater Shepparton 2018). These planning activities indicate a degree of alignment between the government-led East Coast HSR proposal and regional actors.

6.1.2. The CLARA Plan

Publicly available information about the CLARA Plan is less extensive and detailed than information about East Coast HSR. The CLARA Plan launched in July 2016 and technical studies and plans were commissioned by the consortium in 2018 after it received a Commonwealth government grant to develop a business case (see CLARA 2018); however, this information was not released for public consumption. In the interim, CLARA commissioned architects and graphic designers to produce images and diagrams that promote their vision for high-speed rail and new city development. Additional information about the spatial strategies formulated by network planners was collected from diverse sources including: a website published by the proponent, public presentations by Nick Cleary, CLARA CEO, media reports and notes from interviews and meetings with CLARA representatives.[4] As noted in the introductory chapter, it is prudent to treat these materials with caution in the analysis because the magnitude and intensity of urban development envisioned by CLARA is inconsistent with case study findings of high-speed rail development in overseas contexts (see Chapter 2). Nevertheless, the extent and quality of the available information is sufficient for the purposes of the geographic analysis.

Figure 29 illustrates the network structure of the CLARA Plan in conceptual form. The most apparent difference between East Coast HSR and the CLARA Plan is their respective network lengths. East Coast HSR is national in scale because it connects all state and territory capital cities along the eastern seaboard, while the CLARA Plan only connects the capital cities of NSW, Victoria and the ACT: Sydney, Melbourne and Canberra, respectively. Another notable difference between East Coast HSR and the CLARA Plan is the latter deviates further inland to integrate regions that are more remote and sparsely populated into the network. Consequently, several regional cities in NSW and Victoria connected to East Coast HSR are bypassed in the CLARA Plan.

Figure 30 illustrates the proposed station sites in relation to regional cities in Hume. Because detailed information about the CLARA Plan is yet to be published, the approximate location of each station site is deduced by the author from media reports and notes from interviews and meetings with CLARA representatives. According to this information, Albury-Wodonga and Wagga Wagga are bypassed by the CLARA Plan—serviced instead by spur lines connected to the main high-speed rail line—and Shepparton is serviced by a station near Tallygaroopna, approximately 15 km north of the city centre. In contrast to East Coast HSR, which positioned Albury-Wodonga and Greater

Shepparton as gateways to the network, CLARA elected to situate the station sites either on the periphery or outside of these jurisdictions. Consequently, the CLARA Plan is not well-connected to existing urban areas or public transport networks. It is also difficult to argue the CLARA Plan is integrated with government spatial plans or regional policies because the proposed stations have no relationship to current or future state-significant projects. These findings suggest the spatial strategies formulated by network planners privilege a combination of regional geographies and territorial scales that are distinctly different from those privileged by East Coast HSR and government planners in Hume.

Figure 29. CLARA Plan network structure, 2016

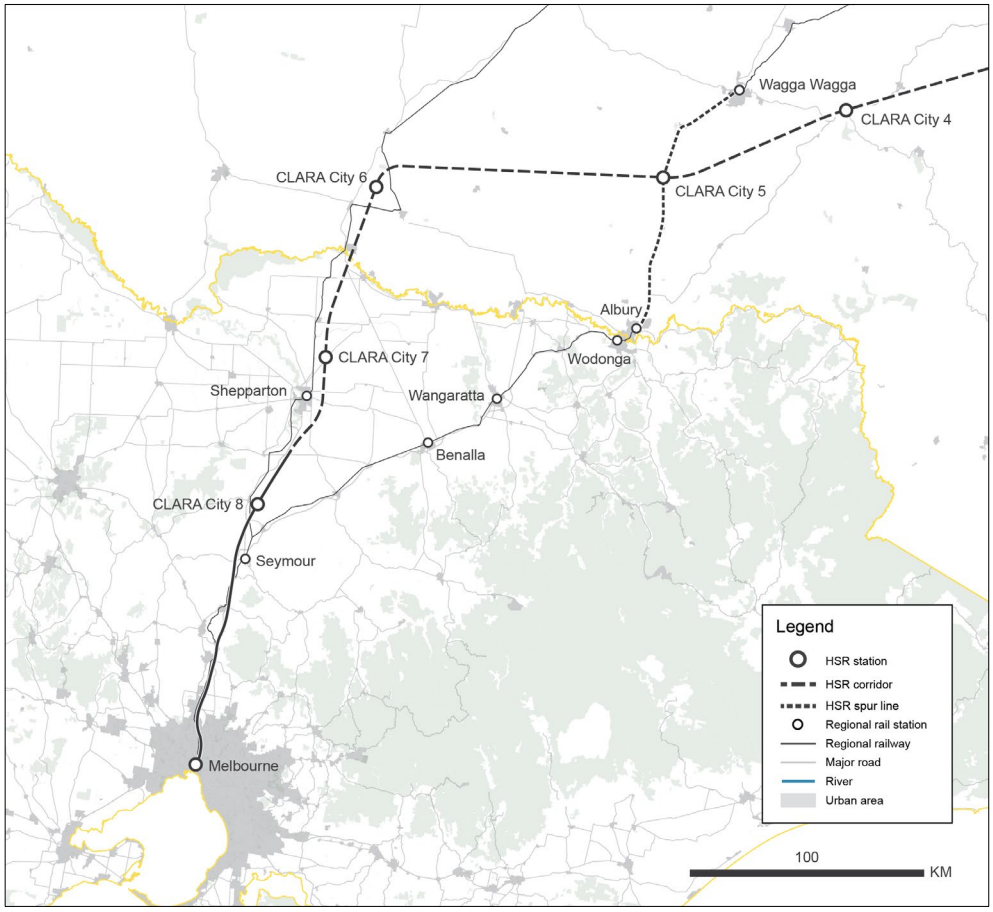


Source: Consolidated Land and Rail Australia (2016) The CLARA Plan.

Promotional images published by CLARA provide additional insights into the rationalities that underpinned network planning. Figure 31, for example, evokes the chimera of a new kind of city in Australia that is enabled and sustained by high-speed rail development. The apparent purpose of the image is to relate the CLARA Plan to its geographic and cultural contexts by establishing connections to the iconography of 'urban' and 'rural' Australia. In the foreground, an image of the wheatbelt is juxtaposed with a clear blue sky to evoke the expansive landscapes of Australia's inland regions, while an image of a high-speed train is rendered to make rural space appear frictionless and smooth. In the background, an image of the skyline of Melbourne is merged with an image of the skyline of Sydney to evoke the possibility of new social and economic

connections between the two cities. Notably, however, the image is missing a 'regional' middle ground—icons of Victorian-era regional cities and rural towns—to mediate between the rural foreground and urban background. Unwittingly or otherwise, the composite image frames regional space as a *tabula rasa* for high-speed rail development that is devoid of impediments to capitalist urbanisation. Though whimsical in its depiction of spatial relationships and geographic scales, the image powerfully elucidates CLARA's ambition to build an urban megaregion around high-speed rail.

Figure 30. CLARA Plan station sites, Hume and southern NSW, 2016



Data sources: corridor alignment and new city sites are indicative only and based on data collected from media reports and notes from interviews and meetings with CLARA representatives.

Figure 32 gives an example that, although equally as fanciful as Figure 31, warrants closer analysis for the critical insights that it can provide. The image depicts the kind of urbanity that network planners expect to emerge from high-speed rail development: a network of eight intermediate-sized cities that are densely populated and anchored by vibrant station area developments. In their minds, the new cities will become islands of urbanity in an otherwise rural landscape; more akin to the 'supercities' enabled by high-speed rail development in China (see Wu et al. 2015, 2016) than to the lived experience

of communities in rural and regional Australia. The intensity and magnitude of urban development depicted in the image indicates that CLARA's new cities are intended to perform like other intermediate-sized cities in Australia: like Newcastle or Wollongong in NSW or Geelong in Victoria. High-speed rail would be used to embed CLARA's new cities into the national settlement system and transform the relationship between Melbourne and Sydney and established regional cities in Hume.

Figure 31. Artist's impression of the CLARA Plan



Source: Consolidated Land and Rail Australia (2016) The CLARA Plan.

Figure 32. Artist's impression of a CLARA new city



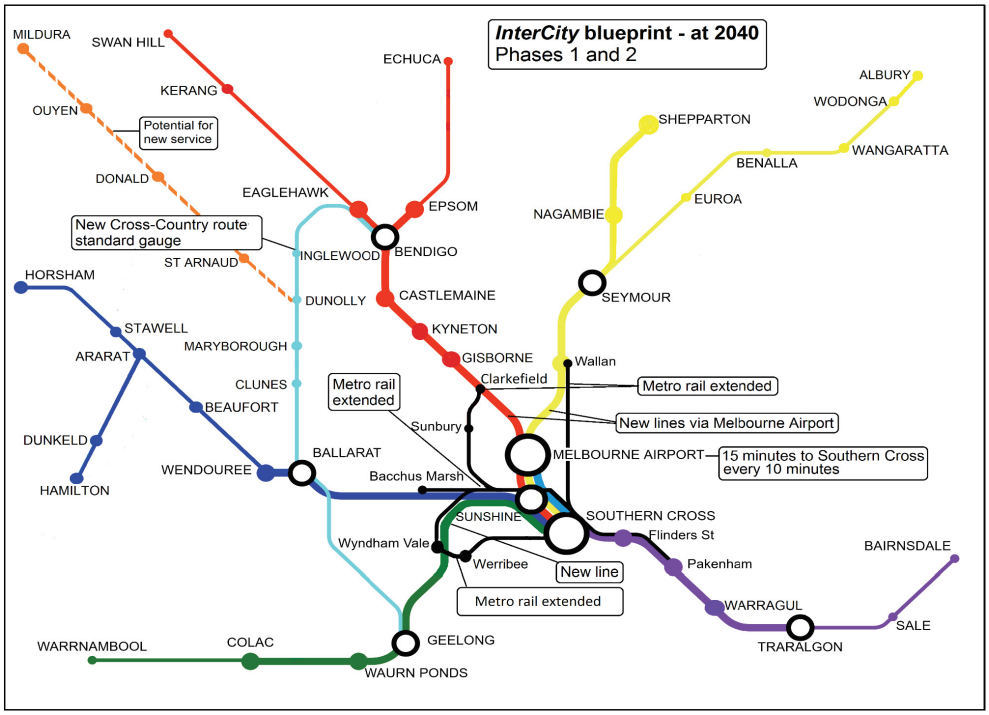
Source: Consolidated Land and Rail Australia (2016) The CLARA Plan.

6.1.3. InterCity Blueprint

RFI launched the InterCity Blueprint in September 2016. It is distinct from East Coast HSR and the CLARA Plan by its smaller scale, radial network structure and slower operational speeds. The geographic extent of the network is confined to Victoria, except for a small extension that connects Wodonga to Albury in NSW (see Figure 33). The radial structure of InterCity also differs from the linear structure of East Coast HSR and the CLARA Plan. As a state-based proposal, InterCity would serve the travel needs of regional communities surrounding metropolitan Melbourne, whereas East Coast HSR and the CLARA Plan predominantly serve interstate travellers. Additionally, RFI are not proposing to use category 1 high-speed rail technology because the distances between

Melbourne and regional cities in Victoria are shorter relative to the distances between capital cities along the eastern seaboard. Nevertheless, InterCity would still satisfy UIC (2018, 5) criteria for category 2 high-speed rail by reaching speeds of 200 km/h on some network segments traversing non-urban areas (see RFI 2016, 48).

Figure 33. InterCity Blueprint network structure, 2017

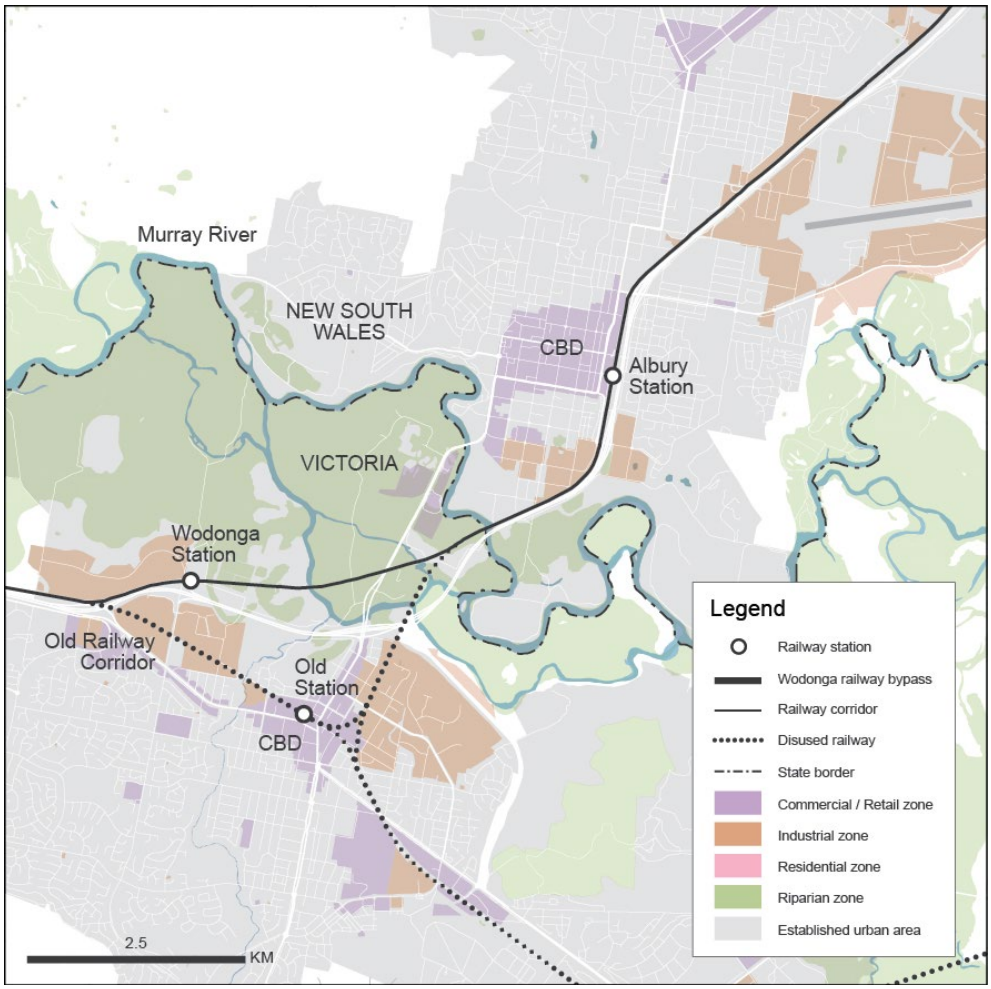


Source: RFI (2017, 13) InterCity and AirTrain: The Rail Futures Institute blueprint for faster and better regional trains in Victoria and re-balancing population growth.

Based on these corridor planning strategies and mobility characteristics, InterCity could be expected to obtain levels of spatial connectivity in Victoria that exceed East Coast HSR and the CLARA Plan. InterCity is a long-term blueprint for the redevelopment of Victoria's rail network that separates the metropolitan and regional networks—both networks currently share tracks along key network segments—and upgrades track infrastructure in regional areas. Additionally, unlike East Coast HSR and the CLARA Plan, InterCity has potential to support the redevelopment of brownfield sites inside regional cities. A characteristic feature of Victoria's regional cities is the proximity of their existing railway stations to commercial areas and industrial precincts. Network planners were constrained in their ability to explore spatial strategies that diverged from the existing form and structure of settlement systems because of the decision to renovate existing railway corridors. Nevertheless, the redevelopment of central brownfield sites within established urban areas could still transform the spatial structure of regional cities

connected to the network by enhancing accessibility, supporting higher built form densities and a greater mix of urban land uses.

Figure 34. InterCity Blueprint station sites, Albury-Wodonga, 2016



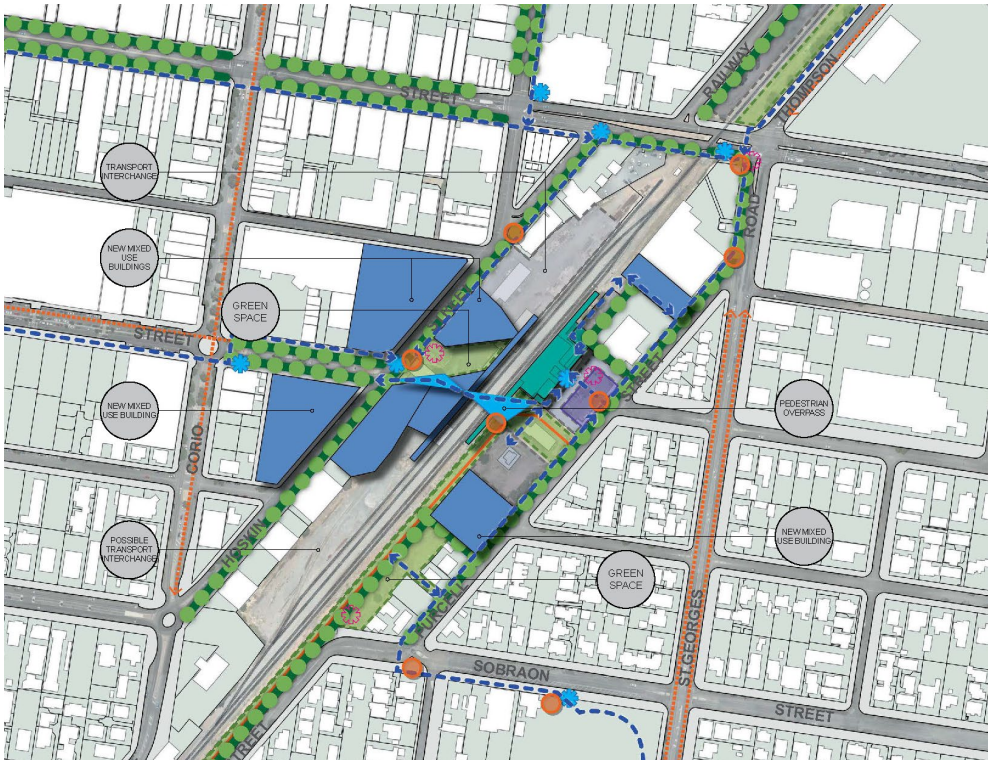
Note: Table 7 lists data sources used in the regional and local maps.

It is important to note that InterCity obtains different levels of spatial connectivity in Albury-Wodonga and Greater Shepparton. In Albury-Wodonga, RFI propose to service the area using two railway stations: a heritage-listed station in Albury and a new station in Wodonga that opened in 2011. InterCity obtains strong connectivity to Albury because the existing railway station abuts the commercial centre, but connectivity to Wodonga is weak by comparison because the new railway station is located approximately 4 km west of the commercial centre (see Figure 34). The relatively weak outcome in Wodonga is attributable to a decision by government planners to relocate Wodonga station as part of the Wodonga Rail Bypass project and renewal of the central commercial area. Both projects generated considerable economic development and urban design benefits for the City of Wodonga. However, a negative consequence is that Wodonga station is now surrounded by heavy industry and disconnected from commercial and residential areas.

The new station site could be leveraged to support the redevelopment of surrounding brownfield sites, but InterCity is unlikely to catalyse more intensive forms of station area development because travel-time savings between Melbourne and Wodonga are modest compared to the interstate proposals (see Table 19).

Greater Shepparton's relative proximity to Melbourne means that travel-time savings enabled by InterCity could support more intensive forms of urban redevelopment. InterCity obtained strong connectivity to Shepparton because the existing station site, which is centrally located, abuts the main commercial area. It could also enhance connectivity to outlying townships because public transport networks converge on the existing station. Notably, soon after the launch of InterCity, the City of Greater Shepparton commissioned a study that explored options to redevelop the railway station, improve pedestrian and cycling connections to the commercial centre and promote mixed-use forms of development (see Figure 35). Planners also proposed significant upgrades to transport interchange facilities that connect regional passenger trains to local and regional bus services. These activities suggest that InterCity gained more traction among regional actors in Greater Shepparton than it did among actors in Albury-Wodonga because it aligned with Council plans to revitalise the commercial centre and improve connectivity to outlying communities.

Figure 35. Shepparton railway precinct master plan, 2017



Source: Spiire Australia (2017, 25) Shepparton Railway Precinct Master Plan prepared for the City of Greater Shepparton.

6.1.4. Preliminary assessment of connectivity

Table 16 takes stock of findings from the qualitative planning analysis by assessing the levels of spatial connectivity obtained by each high-speed rail proposal. The assessment does not consider spatial connectivity in a holistic sense because it only factors the proximity of the proposed station sites to existing regional centres and railway stations; nevertheless, the purpose is to consolidate findings from the qualitative planning analysis before starting the quantitative spatial analysis. Findings from both types of analysis will be considered in conjunction in subsequent sections to address the second research question: to what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume? (RQ2).

Table 16. High-speed rail station connectivity assessment

Station name	State	Distance to nearest –		Average $X = \frac{(a+b)}{2}$ (km)	Connectivity
		regional centre (a) (km)	railway station (b) (km)		
East Coast HSR –					
Albury-Wodonga	VIC	21.50	18.50	20.00	Very weak
Shepparton	VIC	10.00	10.00	10.00	Very weak
CLARA Plan –					
City 5	NSW	73.50	8.50	41.00	Very weak
City 7	VIC	16.00	17.00	16.50	Very weak
City 8	VIC	41.50	14.50	28.00	Very weak
InterCity–					
Albury	NSW	1.00	0.00	0.50	Strong
Wodonga	VIC	4.00	0.00	2.00	Moderate
Shepparton	VIC	1.00	0.00	0.50	Strong
Connectivity values –	Strong		$X < 1$ km		
	Moderate		$1 \geq X \leq 2.5$ km		
	Weak		$2.5 > X < 10$ km		
	Very weak		$X \leq 10$ km		

Notes: East Coast HSR station locations based on AECOM et al. (2013b) High Speed Rail Study: Phase 2 Report. Appendix Group 3 - Preferred HSR Alignment; CLARA plan stations locations based on media reports, notes from interviews with research participants and meetings with CLARA representatives; InterCity station locations based on RFI (2016).

East Coast HSR and the CLARA Plan exhibit very weak connectivity to existing regional centres and railway stations compared to the InterCity Blueprint. It is important to note, however, that the measures used to evaluate connectivity create a false equivalence between East Coast HSR and the CLARA Plan because the latter proposal is more detached from existing settlement systems than the former. Nonetheless, there is

scope for both proposals to improve spatial connectivity by constructing new transport links that integrate the proposed station sites into the existing railway network. It is also important to note that, as a consequence of the Wodonga Rail Bypass project (see Chapter 5), the generally strong results recorded for InterCity are reduced by poor connectivity between Wodonga Railway Station and central Wodonga. Nevertheless, there is potential to redevelop industrial sites around Wodonga Station and to strengthen connections to the city centre by developing new public transport links.

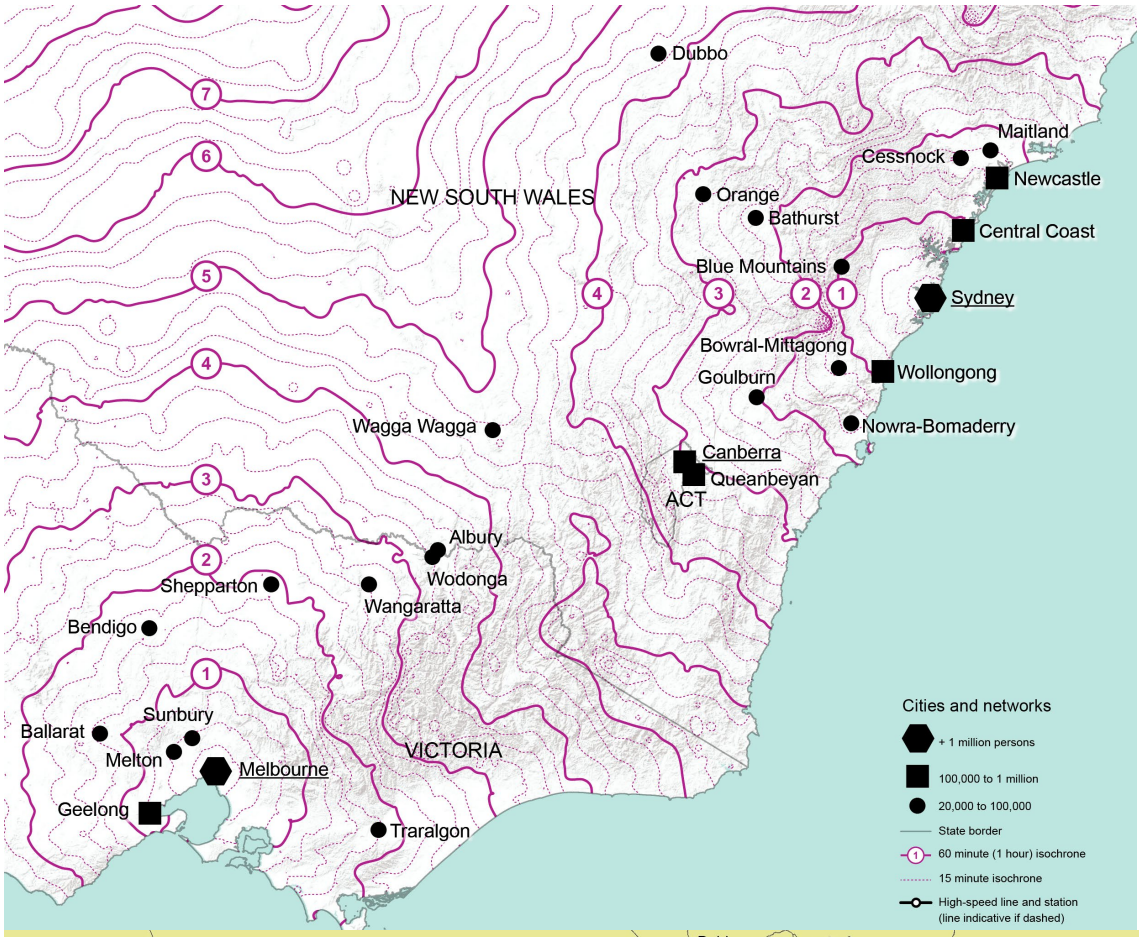
6.2. Current conditions of spatial accessibility

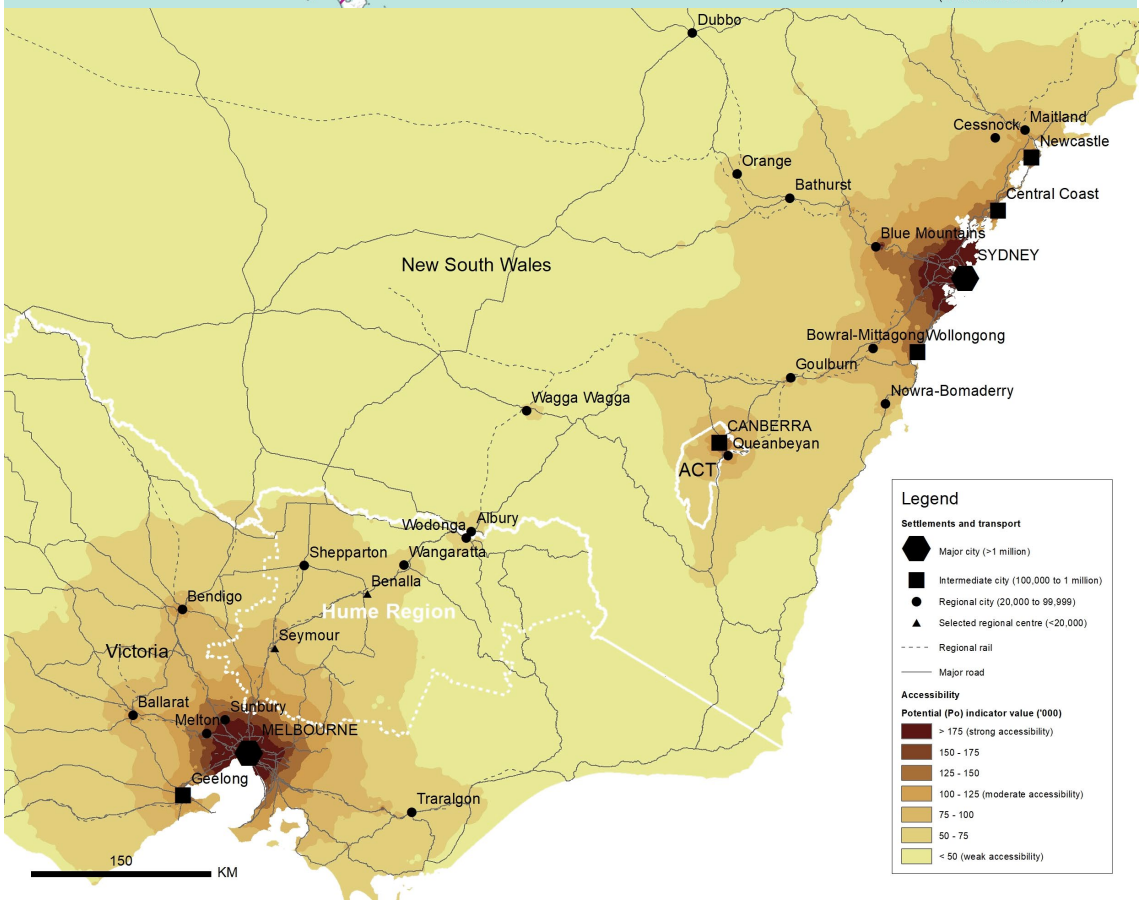
This section will analyse current conditions of spatial accessibility along the southeastern seaboard of Australia to give context to observations in the case description about current planning challenges in Hume and proposed directions for urban and regional development (see Chapter 5). Additionally, the results supply a baseline to analyse the potential impacts of each high-speed rail proposal on spatial accessibility. The research design detailed the four-step process used to analyse current and potential patterns of spatial accessibility (see Chapter 4). It also explained how concepts of regional connectivity and regional cohesion supply overlays to the analysis that illuminate the spatial geographies of high-speed rail planning in Hume. These concepts support a discussion about the kind of 'geographic fix' advanced by each proposal for Hume.

Current conditions of spatial accessibility in Hume are analysed using the results from an impedance model and a set of accessibility indicators. A similar process is followed in the next section where the potential impacts of each high-speed rail proposal on spatial accessibility are assessed. Figure 36a maps current travel-times from cities and regions in the ACT, NSW and Victoria to the centre of Melbourne or Sydney—whichever is nearer—and Figure 36b maps current conditions of spatial accessibility using the Potential (Po) indicator. Sydney and Melbourne were chosen as destinations for the travel-time analysis because the population size of both cities will strongly influence values produced by the accessibility indicators.

In the map depicting current travel-times (Figure 36a), isochrones extend in regularly spaced intervals from the centre of Melbourne and Sydney, except for areas where constraints are imposed by difficult terrain. The patterns of isochrones suggest that current travel-times to Melbourne and Sydney by regional passenger rail are equal to or slower than road travel because no 'islands' of heightened connectivity appear in the map. Additionally, the map illuminates the geographic and temporal influences that have structured settlement systems along the southeastern seaboard. Except for Canberra, the

Figure 36. Current (a) travel-time to Melbourne or Sydney (b) spatial accessibility





national capital, intermediate-sized cities in the study area such as Central Coast, Geelong, Newcastle and Wollongong are all proximate to their respective state capital cities. The structure of inland regional cities follows a different spatial logic. Ballarat, Bendigo, Blue Mountains, Bowral-Mittagong and, to a lesser extent, Goulburn and Shepparton, have a strong relationship to their respective capital cities, but Albury-Wodonga, Wagga Wagga and Wangaratta have a strong relationship to the NLTN.

Figure 36b shows how spatial accessibility in the study area is polarized towards Melbourne and Sydney and, to a lesser extent, towards Canberra. Regions of strong-to moderate-accessibility extend in concentric rings from the centres of Melbourne and Sydney to encompass their respective hinterland areas including outer-metropolitan and peri-urban regions. The patterns of accessibility observed in the map outline two extended urban regions where economic potential is concentrated around a dense urban core: one extended urban region centred on Sydney that encompasses the Blue Mountains, Central Coast, Newcastle and Wollongong and another centred on Melbourne that encompasses Ballarat, Bendigo, Geelong, Melton and Sunbury. Beyond these regions of strong accessibility are regions of moderate-to-weak-accessibility that encompass outlying regional cities such as Shepparton, Wangaratta and Wodonga in Hume. The patterns of accessibility observed in the map mirror the general economic trajectory of regional cities in Victoria where the inner-ring cities of Ballarat, Bendigo and Geelong have performed more strongly in recent decades than outlying regional cities such as Shepparton and Wangaratta in Hume (see Table 14, Table 15, Figure 17 and Figure 18).

Table 17 ranks cities within the study area by their Location (Lo) indicator value to show the settlement hierarchy of Australia's southeastern seaboard. The rank order of cities generally conforms to the national settlement hierarchy published by the Australian government (2011, Figure 1) with capital cities and intermediate-sized cities ranked higher than regional cities. Additionally, the rank order of cities in Victoria generally conforms to the settlement hierarchy published by the Victorian Government (2014c, Map 1). The order of cities in Victoria reflects their relative economic performance with Geelong (7th), Ballarat (10th) and Bendigo (13th) ranked above the outlying regional cities of Shepparton (14th), Wangaratta (18th), Wodonga (21st) and Traralgon (17th) in eastern Victoria. At the regional-level, the rank order of cities in Hume does not conform to the settlement hierarchy envisaged by government planners in the *Hume Regional Growth Plan* (see Hume RMF 2014, Map 7), where Shepparton and Wodonga are designated as major growth locations and Wangaratta is designated as a medium to high

Table 17. Current settlement hierarchy in the study area

Rank	City	State	Location indictor value (Lo)	Travel to MEL or SYD (min.)	Population 2016	Settlement type
1	Sydney	NSW	130.6	NA	4,321,535	Capital city
2	Melbourne	VIC	147.8	NA	4,196,198	Capital city
3	Wollongong	NSW	179.7	61.9	261,896	Intermediate city
4	Canberra	ACT	186.8	151.2	395,790	Capital city
5	Central Coast	NSW	188.4	73.5	307,742	Intermediate city
6	Queanbeyan	NSW	189.8	153.9	36,348	Regional city
7	Geelong	VIC	198.8	67.8	157,104	Intermediate city
8	Goulburn	NSW	200.0	129.3	22,419	Regional city
9	**Seymour**	**VIC**	**202.7**	**80.2**	**5,844**	**Regional centre**
10	Ballarat	VIC	209.9	84.3	93,759	Regional city
11	Newcastle	NSW	212.2	102.4	322,278	Intermediate city
12	Maitland	NSW	220.1	110.8	78,015	Regional city
13	Bendigo	VIC	224.5	108.5	92,379	Regional city
14	**Shepparton**	**VIC**	**249.2**	**131.0**	**46,199**	**Regional city**
15	Bathurst	NSW	250.2	138.4	33,587	Regional city
16	**Benalla**	**VIC**	**262.3**	**144.7**	**9,298**	**Regional centre**
17	Traralgon	VIC	265.5	123.3	25,485	Regional city
18	**Wangaratta**	**VIC**	**285.1**	**171.8**	**18,566**	**Regional city**
19	Orange	NSW	285.1	177.0	37,182	Regional city
20	Albury	NSW	313.6	220.0	47,974	Regional city
21	**Wodonga**	**VIC**	**314.4**	**217.2**	**35,130**	**Regional city**
22	Wagga Wagga	NSW	317.9	303.5	48,263	Regional city
23	Warrnambool	VIC	323.1	195.8	30,709	Regional city
24	Horsham	VIC	330.9	209.4	15,627	Regional city
25	Port Macquarie	NSW	365.1	265.6	44,814	Regional city
26	Dubbo	NSW	367.4	277.7	34,339	Regional city
27	Tamworth	NSW	372.0	274.0	33,885	Regional city
28	Griffith	NSW	373.6	321.0	18,874	Regional city
29	Armidale	NSW	441.7	347.9	20,386	Regional city
30	Coffs Harbour	NSW	452.3	357.8	48,225	Regional city
31	Mildura	VIC	475.6	369.4	33,444	Regional city
32	Lismore	NSW	592.3	502.8	27,569	Regional city

Notes: Regional cities and regional centres in Hume in **bold**. Some regional cities outside of Hume not shown in the table. Figure 8 depicts the study area boundary.

growth location. Notably, the regional centres of Seymour (9th) and Benalla (16th) ranked higher than most regional cities in Hume because they are nearer to Melbourne.

As predicted, travel-times to Melbourne strongly influenced the Lo values recorded for cities in Hume. Benalla and Seymour ranked higher in the results compared to some larger cities in Hume because they are only approximately 145-mintes and 80-minutes travel-time to Melbourne, respectively. This finding also highlights the need to consider the geographic, economic and political factors that shape settlement systems when interpreting results from the accessibility indicators. Current travel-times from Shepparton and Wodonga to Melbourne are approximately 131-minutes and 217-minutes, respectively. Other regional cities that are relevant to the geographic analysis are Wangaratta, which is approximately 172-minutes travel-time to Melbourne, and Wagga Wagga, which is midway between Melbourne and Sydney and approximately 304-minutes travel-time to either city. As discussed, the travel-times, Lo and Po values derived in this section provide a baseline for the analysis of regional connectivity and spatial accessibility impacts of different high-speed rail proposals in the next section.

6.3. Potential spatial accessibility impacts of recent proposals

This section analyses the potential impact of each high-speed rail proposal on spatial accessibility in Hume. The analysis has two objectives. The first objective is to understand how the travel-time improvements produced by different network planning strategies could modify regional connectivity and restructure the settlement system. The second objective is to understand the implications of high-speed rail development for regional cohesion and settlement system development. The GIS model used to approximate current travel-times from cities and regions in the ACT, NSW and Victoria to the centre of Melbourne or Sydney is adapted to incorporate the mobility characteristics of each high-speed rail proposal. Table 18 details the travel speeds assigned to different elements of each proposal and the time penalties applied to transfers between different transport modes. Attributes in the table should be read in conjunction with Appendix 4, which details the travel speeds and transfer times assigned to different elements of the road and conventional rail networks and major air routes in the original GIS model. Finally, it is important to note that discussion of the results in this section is structured around the concepts of regional connectivity and regional cohesion instead of around the different proposals, like in the previous section.

6.3.1. Regional connectivity and settlement system restructuring

Table 19 lists the potential travel-time savings for cities in the study area in absolute and relative terms to compare the regional connectivity improvements enabled by each high-speed rail proposal. The percentage difference between current and potential travel-times are colour-coded to visualise the intensity and distribution of connectivity improvements. Additionally, current Lo indicator values are used to rank the cities in ascending order including the new cities proposed by CLARA. Ordering the cities in this way, and colour-coding the results, illuminates the geographic distribution of connectivity improvements enabled by each proposal.

Table 18. Values assigned to key elements of each high-speed rail proposal

Network element	High-seed rail proposal		
	ECHSR	CLARA	InterCity
High-speed rail			
Inner-urban (incl. tunnels)	150 km/h	200 km/h	65 km/h
Middle-urban	-	-	80 km/h
Outer-urban	-	-	95 km/h
Non-urban	285 km/h	360 km/h	110-175 km/h
Other	-	160 km/h	-
Railway stations (transfers)			
Departures (road-to-rail)	15 min.	15 min.	5 min.
Arrivals (rail-to-road)	5 min.	5 min.	5 min.

Notes: Speed values for each network element were calculated based on approximate element length (calculated in GIS) and station-to-station travel-times proposed in AECOM et al. (2013a), CLARA (2017) and RFI (2016). Time values for station transfers approximate differences in check-in times for inter-regional and inter-state travel.

The strongest connectivity improvements produced by East Coast HSR are targeted towards the inland regional cities of Wagga Wagga (60.8%), Wodonga (54.5%) and Albury (53.8%). In the Hume Region, Shepparton (48.5%) could also experience a relatively strong improvement, while Benalla (35.1%) and Wangaratta (29.8) could experience moderate improvements. These results suggest that East Coast HSR could restructure regional connectivity in ways that promote the settlement hierarchy formulated by the Victorian Government (2014c, Map 1) and Hume RMF (2014, Map 7) because Shepparton and Wodonga experience stronger connectivity improvements than Benalla and Wangaratta. Additionally, East Coast HSR would be likely to promote the growth of inland regional cities over the growth of regional centres nearer to Melbourne. An example of this is supplied by Seymour—a regional centre situated on the edge of Melbourne's peri-urban zone—that would experience no connectivity improvement because it is bypassed by East Coast HSR.

Table 19. Potential connectivity impacts of recent HSR proposals

Rank	City	State	Current	ECHSR		CLARA		InterCity	
			Travel (min.)	Diff. (min.)	Diff. (%)	Diff. (min.)	Diff. (%)	Diff. (min.)	Diff. (%)
1	Wollongong	NSW	61.9	0.0	0.0	0.0	0.0	0.0	0.0
2	Canberra	ACT	151.2	-61.0	40.3	-76.2	50.4	0.0	0.0
3	Central Coast	NSW	73.5	0.0	0.0	0.0	0.0	0.0	0.0
4	Queanbeyan	NSW	153.9	-54.0	35.1	-69.3	45.0	0.0	0.0
-	CLARA City 1	NSW	84.8	-	-	-36.6	43.1	-	-
5	Geelong	VIC	67.8	0.0	0.0	0.0	0.0	-15.5	22.9
6	Goulburn	NSW	129.3	-17.2	13.3	-61.6	47.6	0.0	0.0
-	CLARA City 2	NSW	110.6	-	-	-59.8	54.0	-	-
7	**Seymour**	**VIC**	**80.2**	**0.0**	**0.0**	**-16.0**	**19.9**	**-0.9**	**1.1**
8	Ballarat	VIC	84.3	0.0	0.0	0.0	0.0	-6.3	7.4
9	Newcastle	NSW	102.4	0.0	0.0	0.0	0.0	0.0	0.0
-	**CLARA City 8**	**VIC**	**95.1**	**-**	**-**	**-51.4**	**54.1**	**-**	**-**
-	CLARA City 3	NSW	186.9	-	-	-105.9	56.7	-	-
10	Maitland	NSW	110.8	0.0	0.0	0.0	0.0	0.0	0.0
11	Bendigo	VIC	108.5	0.0	0.0	0.0	0.0	-17.8	16.4
12	**Shepparton**	**VIC**	**131.0**	**-63.5**	**48.5**	**-62.8**	**47.9**	**-6.6**	**5.0**
13	Bathurst	NSW	138.4	0.0	0.0	0.0	0.0	0.0	0.0
-	**CLARA City 7**	**VIC**	**141.8**	**-**	**-**	**-84.8**	**59.8**	**-**	**-**
14	**Benalla**	**VIC**	**144.7**	**-50.8**	**35.1**	**-38.1**	**26.4**	**-19.5**	**13.5**
15	Traralgon	VIC	123.3	0.0	0.0	0.0	0.0	-5.6	4.5
16	**Wangaratta**	**VIC**	**171.8**	**-51.3**	**29.8**	**-38.1**	**22.2**	**-18.4**	**10.7**
17	Orange	NSW	177.0	0.0	0.0	0.0	0.0	0.0	0.0
-	CLARA City 4	NSW	281.0	-	-	-185.7	66.1	-	-
18	**Albury**	**NSW**	**220.0**	**-118.5**	**53.8**	**-100.9**	**45.9**	**-18.4**	**8.4**
19	**Wodonga**	**VIC**	**217.2**	**-118.5**	**54.5**	**-94.8**	**43.6**	**-18.4**	**8.5**
20	Wagga Wagga	NSW	303.5	-184.7	60.8	-186.2	61.4	-7.4	2.4
21	Warrnambool	VIC	195.8	0.0	0.0	0.0	0.0	-18.0	9.2
-	CLARA City 5	NSW	268.0	-	-	-175.5	65.5	-	-
22	Horsham	VIC	209.4	0.0	0.0	0.0	0.0	-10.8	5.2
23	Port Macquarie	NSW	265.6	0.0	0.0	0.0	0.0	0.0	0.0
24	Dubbo	NSW	277.7	0.0	0.0	0.0	0.0	0.0	0.0
25	Tamworth	NSW	274.0	0.0	0.0	0.0	0.0	0.0	0.0
Key to travel-time improvements:				Strong	≥ 50%	Moderate	≥ 20%	Marginal	≥ 5%

Notes: Regional cities and regional centres in Hume and new CLARA cities in Hume are in **bold**. Melbourne and Sydney not included in table and some regional cities not shown in corresponding thematic maps. Results for CLARA cities not shown for East Coast HSR and InterCity. All values approximate only and represent origin-to-destination travel-times and not station-to-station travel-times.

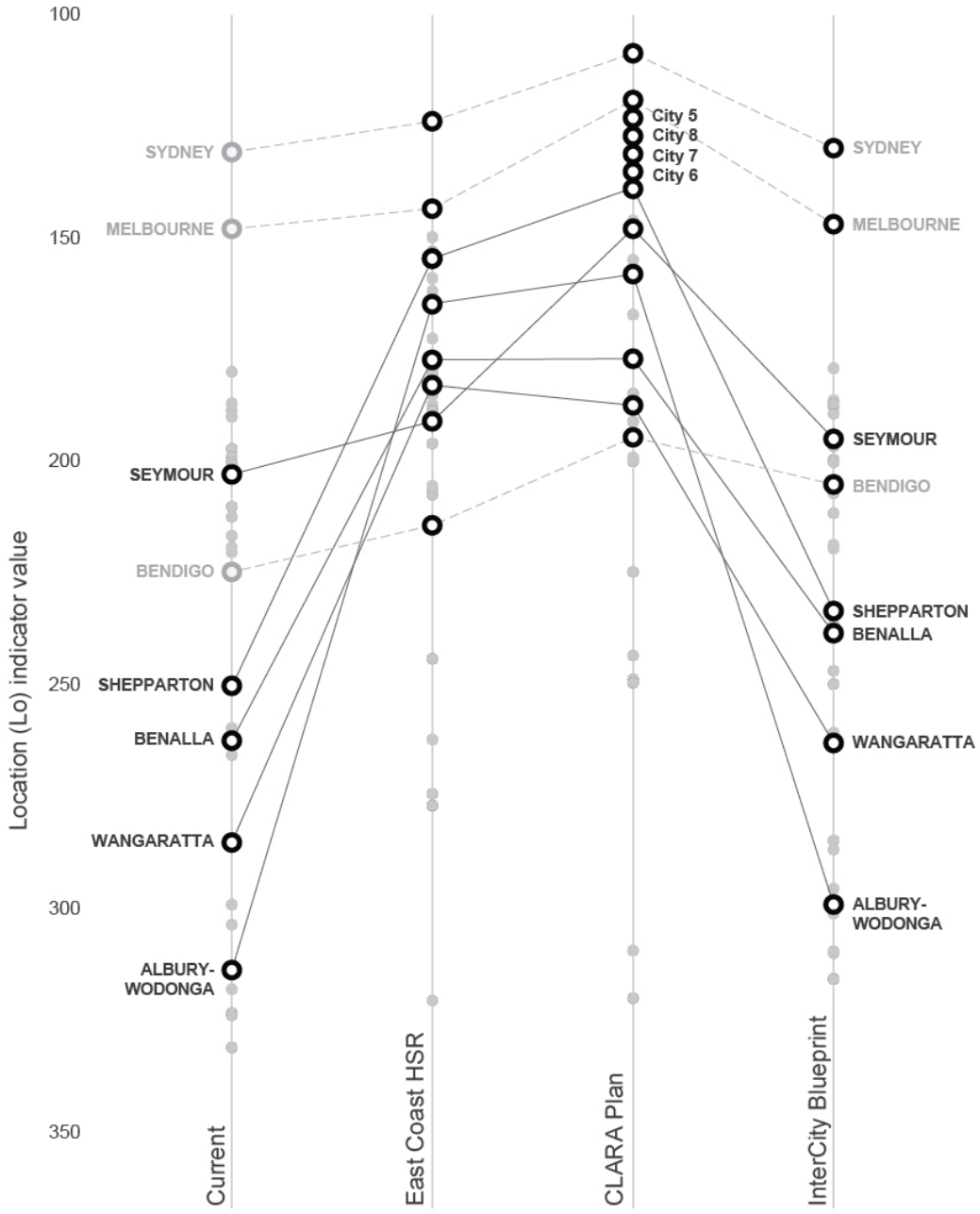
The CLARA Plan yields a quite different pattern of connectivity improvements compared to East Coast HSR. Two differences stand out in the results. First, connectivity improvements are targeted toward new cites with the strongest improvements recorded at CLARA City 4 (66.1%), CLARA City 5 (65.5%), CLARA City 7 (59.8%) and CLARA City 3 (56.7%). By comparison, the established regional cities of Shepparton (47.9%) and Wodonga (43.6%) in Hume would only experience moderate connectivity improvements. Second, the CLARA Plan targets connectivity improvements towards peri-urban regions nearer to Melbourne and Sydney. The proposed site for CLARA City 8 (54.1%) in Hume, for example, could experience strong connectivity improvements while the site for CLARA City 1 (43.1%), near Sydney, could experience a moderate improvement. Consequently, the geography of connectivity improvements produced by the CLARA Plan are not only stronger relative to East Coast HSR, but also targeted towards peri-urban areas and inland regions.

The pattern of connectivity improvements produced by InterCity supplies a useful counterpoint to the two interstate proposals. InterCity targets regional cities in Victoria for moderate to marginal connectivity improvements that are lesser in magnitude compared to the CLARA Plan and East Coast HSR but more evenly distributed. Geelong (22.9%) records the strongest improvement among regional cities followed by Bendigo (16.4%), Wangaratta (10.7%), Warrnambool (9.2%) and Wodonga (8.5%). In Hume, the relatively week improvement recorded for Shepparton (5%) stands in contrast to the stronger improvements recorded for Wangaratta (10.7%), Wodonga (8.5%) and Benalla (13.5%). This result suggests that although connectivity improvements produced by InterCity are more evenly distributed across regional Victoria compared to the interstate proposals, it may not support current Victorian government objectives for settlement system development in Hume.

Figure 37 compares the potential impact of each high-speed rail proposal on the regional settlement hierarchy. Cities in the first column are ranked in order of their current Lo value while cities in the columns to the right are ranked in order of the Lo value produced by each proposal. Regional cities and regional centres in Hume are in bold text. The results show how different network planning strategies could change the rank order of cities in the settlement hierarchy. East Coast HSR, for example, could dramatically enhance Albury-Wodonga and Greater Shepparton's position within the settlement hierarchy because they are now above the inner-ring regional cities of Geelong, Ballarat and Bendigo. This pattern of results also confirms that East Coast HSR could support the

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Figure 37. Potential settlement system impacts of recent HSR proposals



Note: Location (Lo) indicator results are used to analyse the potential impact of high-speed rail development on the regional settlement hierarchy. Regional cities and regional centres in Hume in **bold** text.

regional settlement hierarchy envisaged by government planners (see Victorian Government 2014c, Map 1, Hume RMF 2014, Map 7) because Shepparton and Wodonga record higher Lo values than Wangaratta and Benalla.

The CLARA Plan produced similar patterns of clustering for cities in Hume, but it did not change the rank order of cities because it targeted connectivity improvements towards peri-urban areas and outlying regions. Perhaps the most striking feature of the CLARA Plan results is the clustering of new CLARA cities at the top of the table. In Hume, for example, CLARA City 8 records a stronger Lo value than Canberra while CLARA City 7 in southern NSW records a stronger Lo value than Shepparton. These results suggest the CLARA Plan could have a dramatic impact on settlement system development in Hume because connectivity improvements are targeted towards new CLARA cities instead of the established regional cities.

Finally, the results suggest the influence of InterCity on settlement system development is likely to be modest compared to the two interstate proposals because it produced smaller changes to Lo values for cities connected to the network. Nevertheless, subtle shifts in the rank order of cities begin to illuminate the regional geographies privileged InterCity. In Hume, the most dramatic shifts were recorded for Benalla and Wangaratta where Lo values rose sharply compared to nearby regional cities. Additionally, although Lo values for Wodonga and Shepparton increased marginally, they did not increase to the same extent as the other regional cities. Bendigo and Geelong, for example, jumped several positions in the table. This pattern of results confirms that InterCity could distribute connectivity improvements more equitably among Victoria's non-metropolitan regions than the interstate proposals, but some regional cities could experience much stronger improvements than others. Ballarat and Traralgon, for example, recorded negligible connectivity improvements compared to the other inner-ring regional cities. In Hume, again, InterCity could benefit Benalla and Wangaratta more than Shepparton and Wodonga in relative terms, despite Shepparton recording a higher total Lo value than the other cities.

6.3.2. Regional cohesion and spatial equity impacts

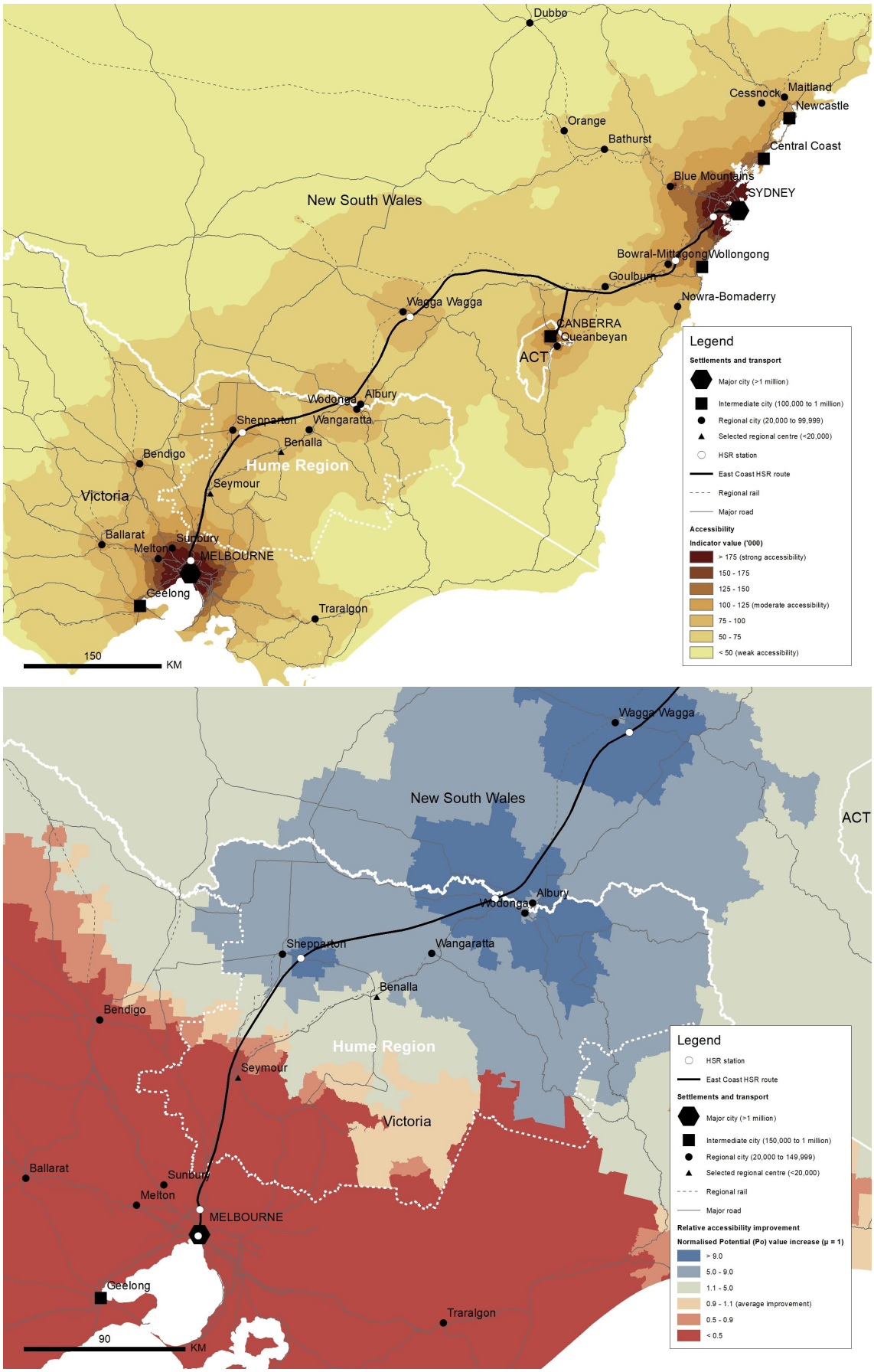
The analysis will now turn to explore the influence of different network planning strategies on regional cohesion and spatial equity in Hume. Two types of spatial accessibility maps were produced to support this part of the analysis. The first type used results from the gravity-based Potential (Po) indicator to illustrate the patterns of spatial accessibility produced by each high-speed rail proposal. These maps supplied the

foundation for a corridor-level assessment of the impact of different network planning strategies on regional cohesion. The second type of map illustrates improvements to spatial accessibility in Hume and surrounding regions relative to the average improvement for all regions across the study area. These maps provide the foundation for a regional-level assessment of the impact of different network planning strategies on spatial equity. A comparative analysis of both map types is used to address the second research question: to what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume? (RQ2)

Figure 38a shows that East Coast HSR could enhance spatial accessibility across Hume and introduce islands of heighted accessibility around regional cities connected to the network. Most notably, Albury-Wodonga and Shepparton could experience similar levels of accessibility to the inner-ring regional cities of Ballarat and Bendigo in Victoria. East Coast HSR could also introduce a region of moderate-to-weak accessibility that encompasses numerous cities along the Hume Corridor including Benalla and Wangaratta in Hume. These results suggest that East Coast HSR could enhance social and economic cohesion between Hume and other non-metropolitan regions nearer to Melbourne and, as previously noted, support the Commonwealth and Victorian government's objectives for settlement system development.

Figure 38b maps the relative accessibility improvements produced by East Coast HSR in Hume and surrounding regions. Patterns of accessibility improvement (blue) and decline (red) relative to the average improvement (white) give a high-resolution image of the geographic distribution of spatial accessibility improvements. Perhaps the most notable feature of the map is a disparity in the distribution of accessibility improvements between metropolitan Melbourne (dark red) and outlying regions (dark blue). Additionally, regions of relative accessibility improvement and decline are separated by a narrow region of average accessibility improvement (white) located just beyond Melbourne's peri-urban zone—in the area between Seymour and Benalla. Considered in conjunction with Figure 38a, which showed spatial accessibility concentrated on metropolitan Melbourne, the patterns of relative accessibility improvement and decline shown in the map suggest that regional subcentres and townships just beyond Melbourne's peri-urban zone could experience 'tunnel effects' if East Coast HSR polarises accessibility towards metropolitan Melbourne and outlying regional cities connected to the network. Nevertheless, this outcome could also support government plans for settlement system development in Hume because the accessibility improvements are targeted towards Shepparton and Wodonga.

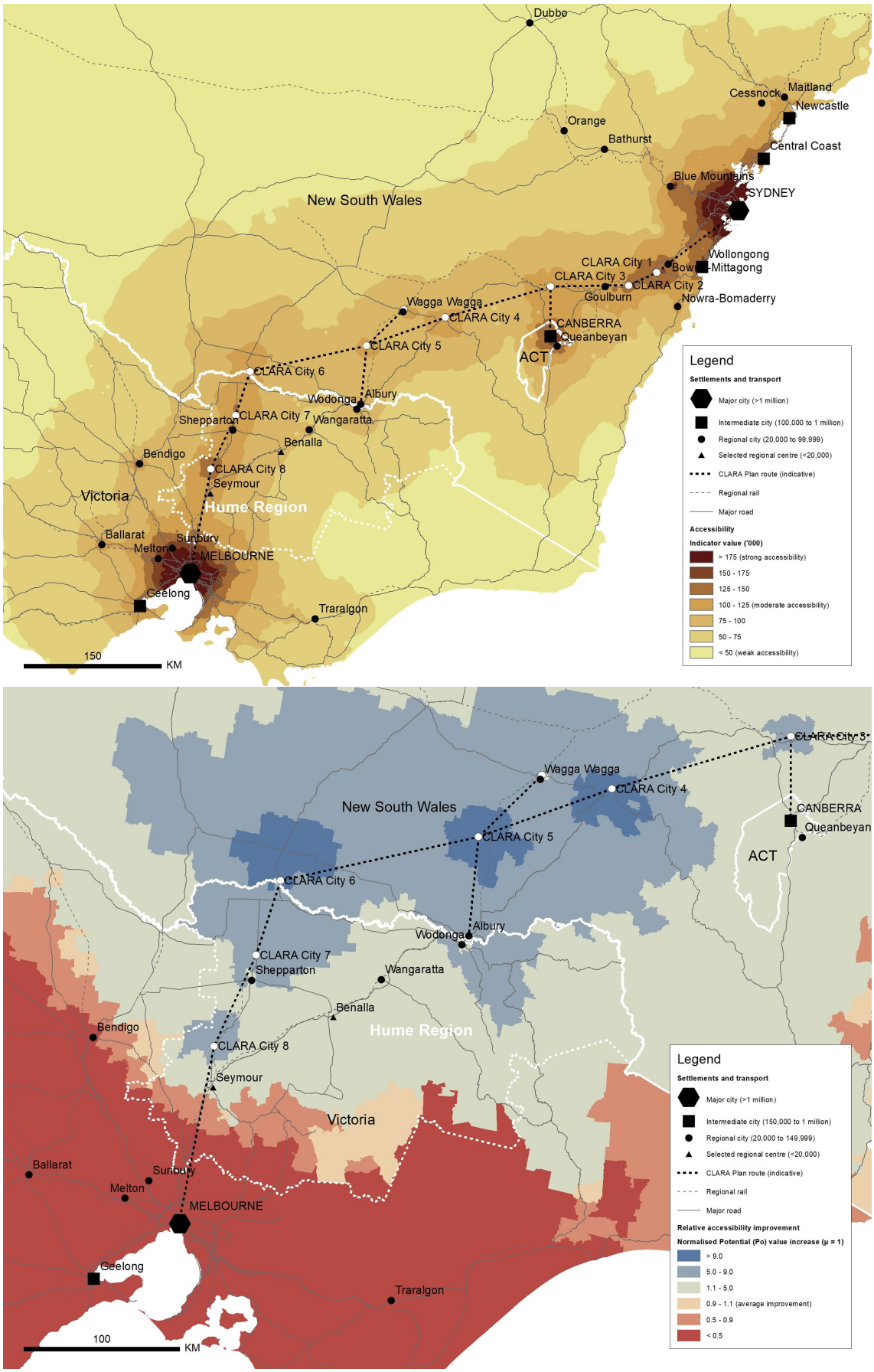
Figure 38. East Coast HSR (a) spatial accessibility and (b) relative accessibility



Another subtle yet pertinent feature of Figure 38b is that islands of strong accessibility improvement in outlying regions do not incorporate the established urban areas of Albury, Wodonga or Shepparton. These 'gaps' in the map occur because situating the high-speed rail stations on peripheral sites targets accessibility improvements towards non-urban areas. The geographies marked-out by the regions of strong and moderate accessibility improvement correspond to the urban spatial dynamics identified in the case description (see Chapter 5). This finding suggests that East Coast HSR is unlikely to promote balanced patterns of spatial growth in Hume because it does not target accessibility improvements towards established communities. Nevertheless, it can still be argued that East Coast HSR is integrated with current strategic plans for the region because it will be likely to support the decentralisation of industrial functions and promote low-density forms of suburban growth. Accordingly, the regions of strong accessibility improvement in Albury-Wodonga and Greater Shepparton prefigure an expanded urban geography where state-significant projects integrate surrounding rural LGAs and townships into the spatial economy of the regional city LGAs.

The patterns of spatial accessibility and relative accessibility improvements produced by the CLARA Plan are distinct from those produced by East Coast HSR. Figure 39a maps the spatial accessibility impacts across the study area. One of the most notable differences compared to East Coast HSR is the generally stronger levels of accessibility produced by the faster operational speed. The geographic structure of spatial access produced by the CLARA Plan also differs to East Coast HSR because of the decision to bypass established communities. Both characteristics combine to mark-out the geography of a new kind of urban region: a continuous corridor of heightened accessibility connecting Melbourne and Sydney. Additionally, the CLARA Plan could produce a corridor of moderate accessibility that extends from metropolitan Melbourne to encompass the new CLARA cities in north-central Victoria and southern NSW. Consequently, cities within the corridor including CLARA City 7 and CLARA City 8 in Hume record Po values that are commensurate with Melton and Sunbury—both dormitory suburbs of Melbourne. These results suggest the CLARA Plan could restructure the geography of regional Victoria to such an extent that cities in remote regions could be more accessible than the inner-ring regional cities.

Figure 39. CLARA Plan (a) spatial accessibility and (b) relative accessibility



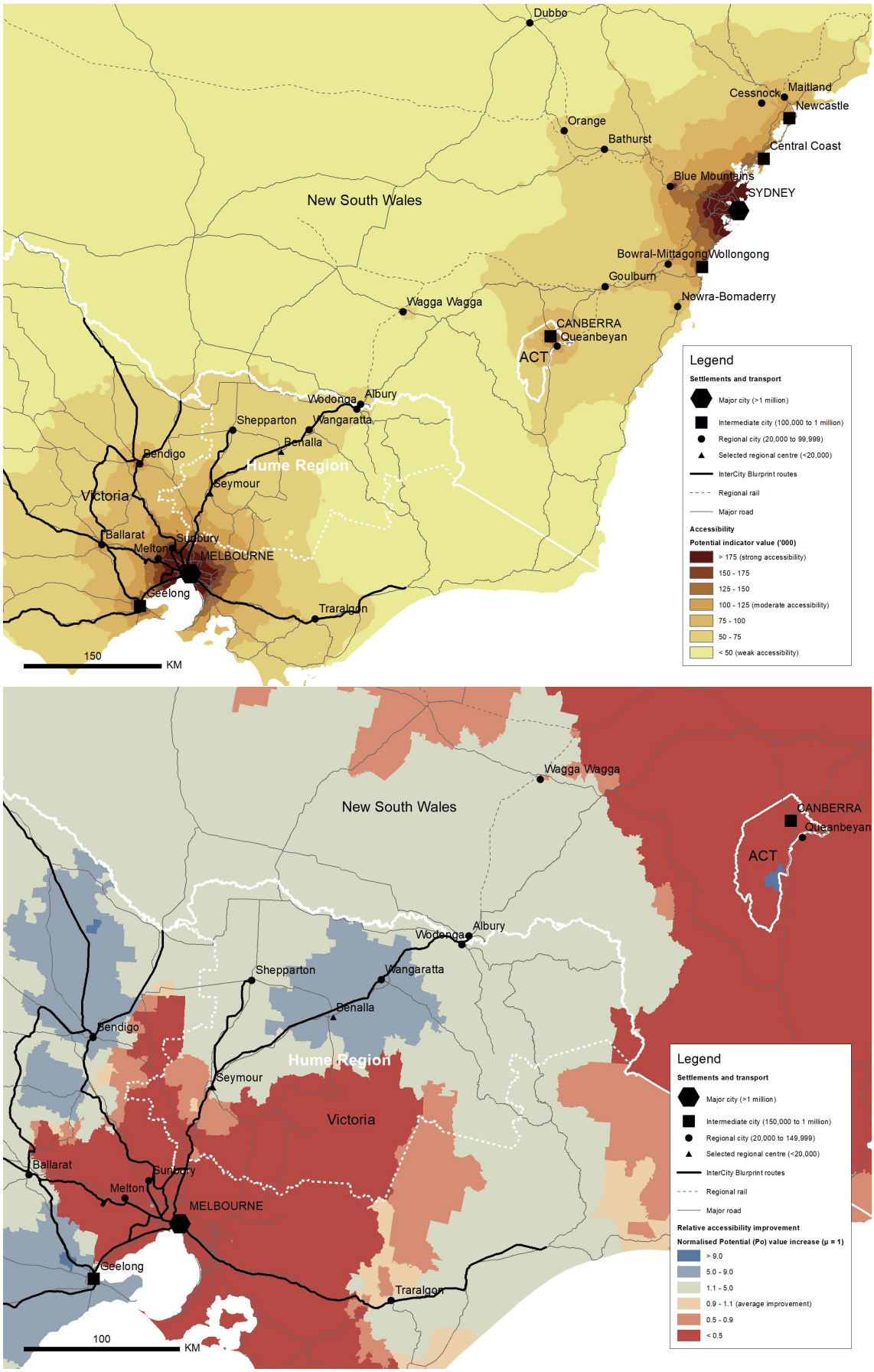
Another pertinent feature of Figure 39a is the extent to which spatial accessibility is polarised towards sparsely populated regions in the study area. For example, the new CLARA cities situated in rural areas of Hume and southern NSW recorded much stronger results than established regional cities and centres. Shepparton recorded the strongest levels of spatial accessibility among this cohort of existing cities, but progressively weaker results were recorded for Albury-Wodonga, Wangaratta and Benalla. This pattern of results suggest that the CLARA Plan is unlikely to engender regional cohesion in Hume because it exacerbates current disparities of spatial access across the region.

The concerns for regional cohesion are underlined by the patterns of relative accessibility mapped in Figure 39b. The most prominent feature of this map is that relative accessibility improvements in Hume are modest despite the strong results exhibited in Figure 39a. This adds weight to concerns about the impact of the CLARA Plan on regional cohesion because improvements to spatial accessibility are not directed towards established communities or distributed evenly across the region. Patterns of relative improvement and decline in Figure 39b also suggest the CLARA Plan could produce strong tunnel effects in areas around Benalla and Wangaratta where average or below-average accessibility improvements are recorded. Tunnel effects could also be experienced by Albury-Wodonga and Shepparton as spatial accessibility becomes polarised towards the new CLARA cities in southern NSW and central Victoria.

The patterns of spatial accessibility and relative accessibility introduced by InterCity differ significantly to the patterns produced by the two interstate proposals. The magnitude of spatial accessibility impacts is lesser due to the slower operational speeds. The patterns of accessibility improvements are also structured concentrically instead of linearly due to the radial network structure. Nevertheless, InterCity supplies a crucial counterpoint to the two interstate proposals because the results mark-out a regional geography that is perhaps more attuned to the economic and political environment of Victoria and thus to Hume.

Figure 40a shows the patterns of spatial accessibility produced by InterCity vary marginally compared to current conditions (see Figure 36b). InterCity could extend the existing region of moderate-to-weak accessibility, which currently encompasses the inner-ring regional cities, to incorporate outlying regional areas in Victoria and southern NSW. These patterns of spatial accessibility suggest the impacts of InterCity on regional cohesion could be modest compared to the interstate proposals. Based on this analysis, it

Figure 40. InterCity Blueprint (a) spatial accessibility and (b) relative accessibility



could be argued that InterCity is unlikely to alter the economic performance of Victoria's regional cities in relative terms because connectivity improvements are targeted towards the inner-ring regional cities and not the outlying regional cities.

Patterns of relative accessibility improvement (blue) and decline (red) mapped in Figure 40b give a more nuanced picture of InterCity's impact on regional cohesion and spatial equity in Victoria. Connectivity improvements across Victoria's inner-ring and outlying regional cities differ little in relative terms—most cities registered only a marginal reduction in travel-times to Melbourne (see Table 19). However, the relative intensity and spatial distribution of accessibility improvements differ significantly. In Hume, InterCity targets accessibility improvements towards the centre of the region, with the strongest improvements recorded around Benalla and Wangaratta. This result stands in contrast to East Coast HSR, which targeted accessibility improvements towards the outlying regional cities of Albury-Wodonga and Shepparton. However, one must be careful when comparing the normalised Po values for InterCity to the two interstate proposals because the InterCity results are based on a lower average accessibility improvement. Nevertheless, the comparison does highlight the strategic limitations of a state-based approach to high-speed rail planning: the slower operational speeds and radial network structure reduce opportunities to restructure the regional settlement hierarchy.

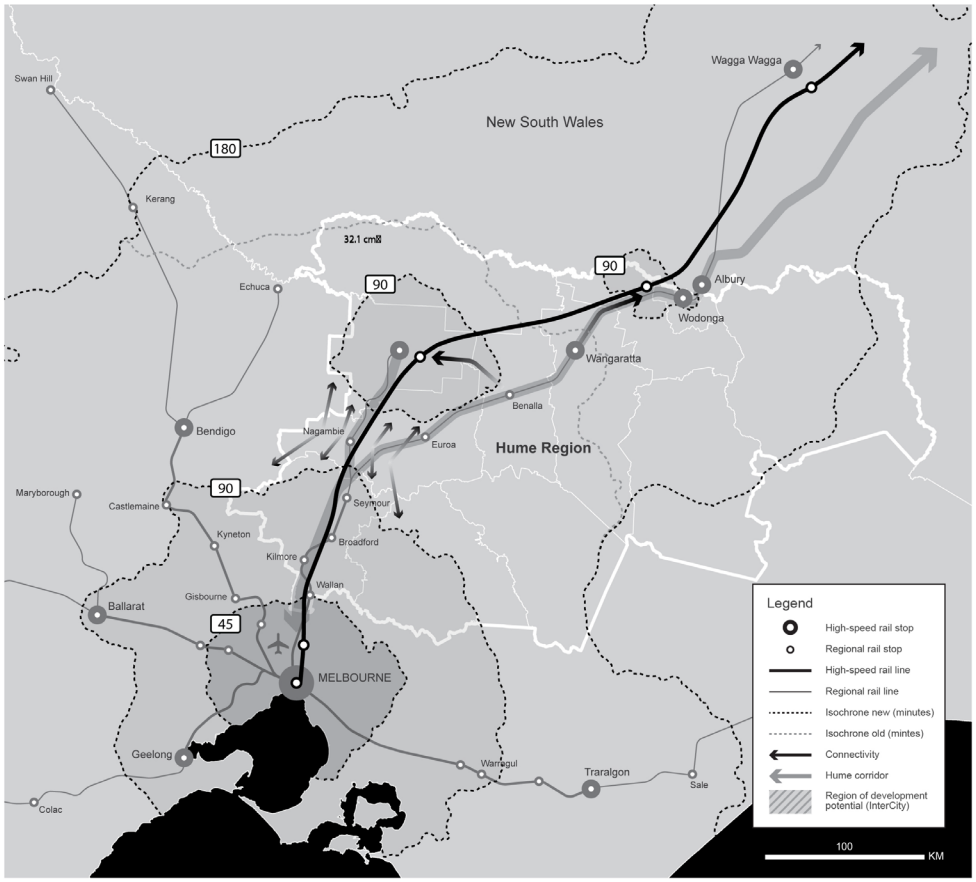
The patterns of relative accessibility produced by InterCity mark-out a regional geography that reinforces current disparities of spatial access in Victoria. Most notably, Shepparton recorded a weak accessibility improvement relative to Ballarat and Bendigo. Additionally, accessibility improvements recorded by Albury-Wodonga are unlikely to make a meaningful difference to regional cohesion because they are significantly less than improvements recorded for Benalla and Wangaratta. Based on this set of results it could be argued that InterCity constitutes a 'business-as-usual' approach to regional transport policy in Victoria because accessibility improvements are targeted towards peri-urban areas and inner-ring regional cities. In Hume, InterCity is unlikely to exert the kind of transformative effect on settlement system development desired by RFI because it does little to alter current conditions of spatial accessibility, which are strongly polarized towards metropolitan Melbourne and, to a lesser extent, towards the inner-ring regional cities of Ballarat, Bendigo and Geelong. However, it is important to note the impacts of the airport link are discounted by the analysis because the indicators used to measure spatial accessibility privilege connectivity to major population centres over connectivity to strategic nodes in national and global transport networks.

6.4. Summary

This chapter supplied a correlate to the institutional analyses in subsequent chapters by exploring the spatial geographies of high-speed rail planning in Hume. Before summarising the findings, however, it is important to recapitulate several characteristics of the study area that are relevant to interpreting the results. Most importantly, the case description found that territorial structures set down by governments in recent decades reinforced the geographic and institutional parameters of state-significant projects in Hume (see Chapter 5). Major urban expansion projects, new road and freight rail projects and logistics infrastructures completed or planned in the first decade of the twenty-first century sought to restructure the space of regional cities by decentralising industrial functions and promoting suburban growth. Additionally, state-significant transport projects demarcated an extended urban geography that formed larger territorial subunits by networking regional city LGAs like Greater Shepparton and the City of Wodonga into surrounding rural LGAs. Commonwealth and State government investments in the NLTN in turn networked regional cities and subregional LGAs into state capital cities along Australia's eastern seaboard. High-speed rail could either reify or recast these territorial structures by restructuring connectivity between metropolitan and non-metropolitan areas and promoting new regions of development potential. The network structures and mobility characteristics of East Coast HSR, the CLARA Plan and InterCity Blueprint foreshadowed divergent trajectories for regional integration by promoting a different geographic fix for Hume.

East Coast HSR constituted an integrated approach to spatial planning in Hume insofar as spatial strategies developed by network planners promoted the directions for settlement system growth formulated by Hume RMF. This finding is somewhat self-evident given that East Coast HSR, as the government-led proposal, was planned at around the same time that Hume RMF developed the *Hume Regional Growth Plan*. Nonetheless, this finding illuminates the influence of East Coast HSR on regional integration as both projects are connected by a common set of spatial strategies and policies for industrial development and settlement system growth. The station sites recommended by network planners had a strong connection to state-significant projects and local strategic initiatives in the region: the Logic intermodal freight hub in Wodonga and plans for a new freight airport in Shepparton. Additionally, the qualitative planning analysis found strong evidence that corridor planning in Victoria was fixed to the geographic boundary of Hume.

Figure 41. Spatial geography of East Coast HSR in relation to Hume

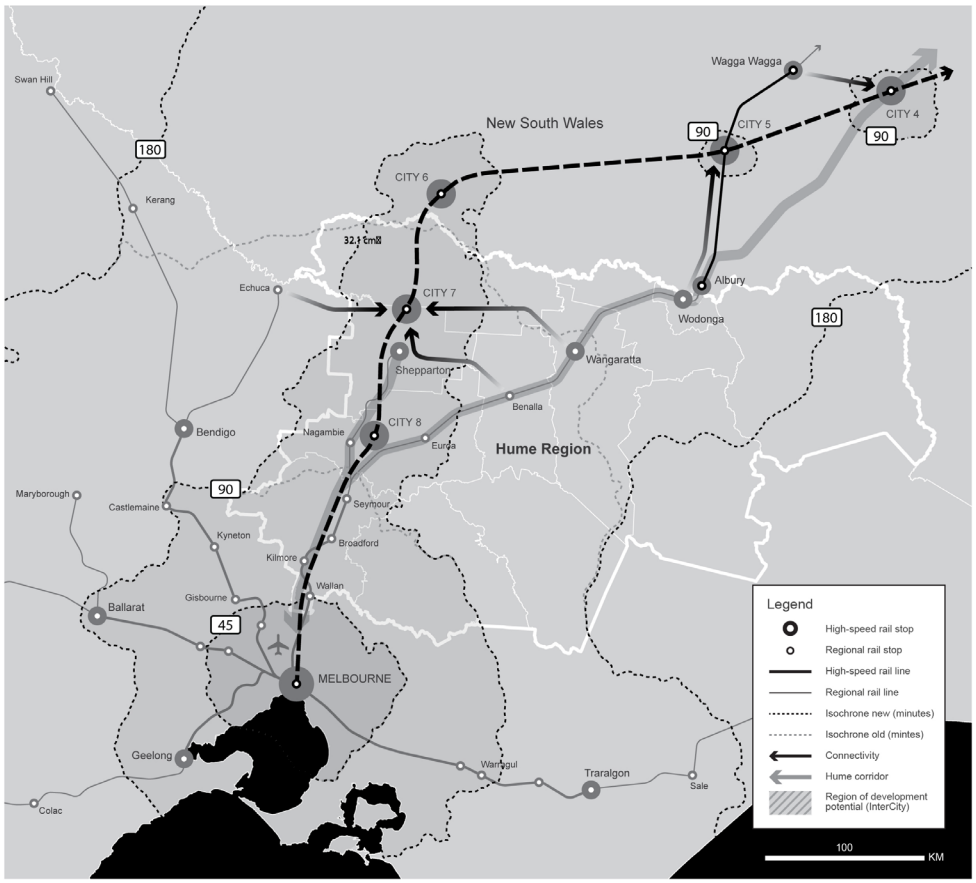


Note: map developed from regional connectivity and spatial accessibility results (above).

The quantitative spatial analysis supported these findings by elucidating the regional geographies and planning scales privileged by East Coast HSR. Figure 41 highlights synergies between East Coast HSR and current state spatial strategies for Hume by combining content from the analytical maps in this chapter with maps from the case description (see Chapter 5). The resulting map highlights new connections between cities along the corridor, new regions of development potential in Hume and 'tunnel effects' caused by step-changes in spatial accessibility. Islands of heightened accessibility introduced by East Coast HSR—demarcated by the 90-minute isochrones around Shepparton and Wodonga—generally reinforce local territorial structures and subregional groupings of LGAs in Hume. The islands extend from the proposed station sites to encompass the host regional city and surrounding rural LGAs, drawing these geographies into the long-distance commuter-shed of metropolitan Melbourne. Consequently, connectivity between Benalla, Wangaratta and Melbourne is re-routed through Shepparton and Wodonga, restructuring the spatial relationship between regional cities, rural communities and the metropolis.

The CLARA Plan does not constitute an integrated approach to spatial planning in Hume because it bypasses regional cities designated by Hume RMF for major growth. Moreover, the proposal is likely to undermine Commonwealth and State government plans for settlement system development because it is structured to promote the growth of new inland cities instead of growing existing regional cities in Hume. Consequently, the CLARA Plan has a tendentious relationship to government strategic plans and regional policies because it exhibits no tangible connection to current state-significant projects or to local strategic initiatives. This outcome is not unexpected given that network planning diverged so radically from East Coast HSR—a project that is by all accounts mutually constitutive of Hume. It is prudent, nevertheless, to explore the kind of region presupposed by CLARA because the one that emerged from the geographic analysis bears no resemblance to extant territorial structures. Put another way, if the CLARA Plan does not constitute an integrated approach to spatial planning in Hume, then in what kind of region could it be considered thus?

Figure 42. Spatial geography of the CLARA Plan in relation to Hume



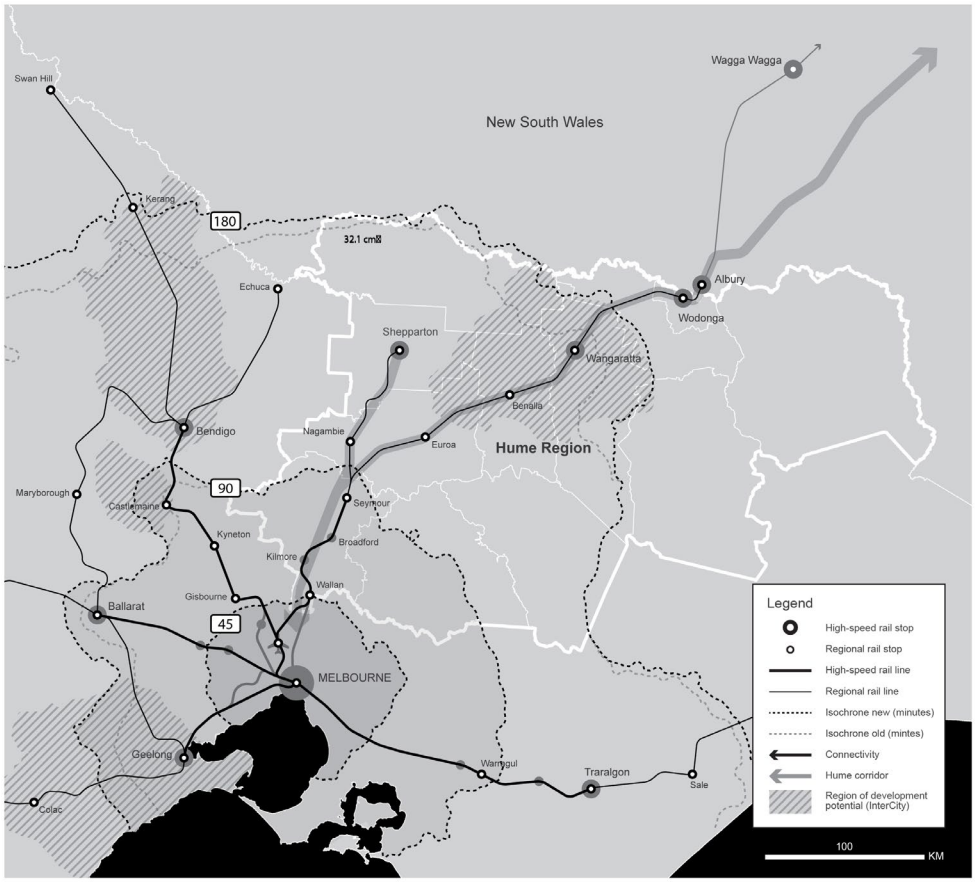
Note: map developed from regional connectivity and spatial accessibility results (above).

The qualitative planning analysis sketched the form and structure of the region presupposed by CLARA—an urban megaregion constituted by a network of

intermediate-sized cities connected to Melbourne and Sydney by high-speed rail. The quantitative analysis developed this preliminary sketch by mapping the potential accessibility impacts of the CLARA Plan on intermediate regions. Perhaps the most striking feature of the maps was the corridor of heightened accessibility that extended from the metropolitan areas of Melbourne and Sydney to encompass outlying regions. Figure 42 illustrates this phenomenon in relation to Hume. In the map, the peri-urban zone of Melbourne is stretched northward to encompass the eastern and northern reaches of Hume and some remote areas of southern NSW. This continuous region of heightened accessibility stands in relief to the discontinuous regions produced by East Coast HSR (i.e., the 'islands' of heightened accessibility around Shepparton and Wodonga). CLARA conceptualised its network of intermediate-sized cities as functionally independent of Melbourne and Sydney; however, the results of the spatial accessibility analysis suggested that new cities would function as dormitory suburbs to Melbourne and Sydney. Moreover, instead of promoting compact forms of urban development, as CLARA suggest, it is likely that urban development would spread horizontally to take advantage of improvements to spatial accessibility.

Deciding whether InterCity constitutes an integrated approach to spatial planning in Hume is a more difficult task because of its subtler connectivity and accessibility impacts relative to the two interstate proposals. InterCity is likely to promote the regional integration of Hume because it will increase connectivity between Melbourne and regional cities connected to the network; however, the connectivity improvements observed were distributed highly unevenly across regional Victoria. InterCity could, in principle, enhance the role of regional cities as hubs for commercial activity and government services by promoting the redevelopment of inner-urban areas and public transport networks. However, the quantitative spatial analysis showed that only select inner-ring regional cities and rural areas on the peri-urban fringe are targeted for accessibility improvements. While RFI contend that InterCity will rebalance population growth to Victoria's regional cities, it could, based on these results, also intensify development pressures in Melbourne's peri-urban zone if the appropriate policies are not in place to control the spread of low-density suburban development. In the absence of such policies, InterCity could entrench status quo processes of urban spatial growth where incremental investments in major road and rail infrastructures gradually extend the economic influence of metropolitan Melbourne.

Figure 43. Spatial geography of the InterCity Blueprint in relation to Hume



Note: map developed from regional connectivity and spatial accessibility results (above).

Figure 43 illuminates a tension between InterCity and current government policies to promote balanced spatial development in Hume by mapping regions of heightened accessibility in relation to current territorial structures and settlement systems. As discussed, RFI contend that InterCity will rebalance population growth from metropolitan Melbourne to regional cities, but, on the other hand, it could also entrench status quo patterns of unbalanced growth if outlying regional cities cannot effectively compete for investment against better-connected inner-ring cities. This assessment discounts the economic benefits that could flow to regional cities in Hume from a direct connection to Melbourne airport (a shortcoming of gravity-based accessibility indicators that, as discussed, privilege connectivity to major population centres over connectivity to major transport hubs). However, regional cities in Hume would still need to compete with better-connected regional cities to attract population growth. These findings suggest that InterCity could exacerbate competitive pressures between cities in Hume. For example, the network structure and mobility characteristics devised by RFI produced stronger connectivity and accessibility improvements for Wangaratta and Benalla than for Albury-Wodonga and Greater Shepparton. This suggests that InterCity does not align with current

state spatial strategies that promote major growth in Albury-Wodonga and Greater Shepparton and moderate growth in Benalla and Wangaratta.

(9,870 words)

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4. The data includes notes takes from a meeting with a CLARA representative at The University of Melbourne in June 2019 where the author viewed a concept plan for the proposed station site in Greater Shepparton.

Chapter 7. East Coast HSR: mind the regional governance gap

Chapter 7 is the first of three chapters to report on the institutional analyses of high-speed rail planning in Hume. The chapters are divided chronologically by a change in political power in late-2013 that caused the Commonwealth government to reconsider its approach to rail infrastructure procurement. The analysis in each chapter moves strategically across territorial levels, social sectors and regional geographies to relate the institutional geographies of high-speed rail planning in Australia to the geographies of regional governance in Hume. Qualitative social scientific techniques are used to analyse the empirically rich primary source data obtained from interviews with the research participants (n=64) and secondary sources including media reports, government policy statements and strategic plans. The results of the analysis are interpreted using the spatial governance framework developed in Chapter 3.

This chapter will address the third and fourth research questions as they relate to East Coast HSR: what political rationalities and planning discourses informed high-speed rail planning between 2008 and 2017? (RQ3) and, in this time, how was the governance of high-speed rail planning enacted at the national and regional levels? (RQ4) The opening sections explore the economic, environmental and political dynamics that framed network planning. This includes an analysis of the 'integrated corridor strategy'—the model of spatial governance developed by state and non-state actors to integrate high-speed rail into non-metropolitan regions. The next two sections examine the institutional and political structures that governed network planning to understand how national actors were connected to each other and to regional actors in Hume. This includes an analysis of the planning and governance strategies used to embed East Coast HSR into the institutional fabric of Hume. Findings from the analysis are summarised in the closing section by recapitulating several 'gaps' in project governance connected to the urban planning and transport planning issues identified in the case description (see Chapter 5) and in the geographic analysis (see Chapter 6).

7.1. Governing 'big Australia'

The context for high-speed rail planning in Hume between 2008 and 2013 is formed by powerful demographic and geopolitical shifts that reshaped Australia's national identity and relationship to the world. Foremost among these shifts is the rise of China as an economic superpower, which eroded a 'tyranny of distance' that long-hindered national development (see Blainey 1966) by drawing Australia closer to the centre of

world trade. Australia experienced an economic boom during the first decade of the twenty-first century driven by Chinese demand for minerals and resources (Guttmann et al. 2019). Additionally, the national population grew at a rate not experienced since the post-war years, due in large part to strong overseas migration (UN 2019). The 2006 national census found that Australia's population of approximately twenty million people had increased by more than one million in just five years (Australian Bureau of Statistics 2007b) and that most of the population growth was concentrated in just five cities (BITRE 2014). Projections prepared by the ABS in 2008 predicted that Australia's population could double to 42.5 million people in 2056, and that Brisbane, Melbourne and Sydney could become 'megacities' before the end of the century (ABS 2008).

Geography had long tempered the global ambitions of Australia's political class by isolating the fledgling nation-state from metropoles of the western world. However, strong economic and population growth clearly buoyed Australia's newly elected Prime Minster, Hon. Kevin Rudd MP, who set about reconstructing Australia's relationship to the world through the idea of a 'big Australia'. Speaking after the 2007 federal election, as the rest of the world was in the grips of the GFC, Rudd proclaimed: "I actually believe in a big Australia. I make no apology for that. I actually think it's good news that our population is growing" (ABC News 2009). While many developed economies were experiencing economic stagnation or negative rates of population growth or both, Rudd welcomed big Australia for its potential to grow the national economy, promote regional security and enhance Australia's standing in the world:

> This Government is building for the future—we call it nation-building for the future. But let's be optimistic about the fact this country's growing, so many around the world are heading the other way. I think it's good for us, it's good for national security in the long term, it's good in terms of what we can sustain as a nation. (Rudd quoted in ABC News 2009)

A mutual dependence on strong population growth connected Rudd's big Australia to the economics of East Coast HSR. Demographers arrived at their high-end projection of 42.5 million people by assuming fertility and nett overseas migration rates and estimates of average life expectancy that maintained historically high rates of national population growth (see ABS 2008). These assumptions in turn underpinned the travel demand forecasts prepared by network planners. High-speed rail development was warranted, they argued, because strong population growth and national productivity improvements would cause long-distance travel along Australia's eastern seaboard to

increase from 152 million trips per annum in 2009 to 355 million trips per annum in 2056 (AECOM et al. 2013a, 3). The expectation that most of Australia's population growth will concentrate in Brisbane, Melbourne and Sydney added weight to the economic case for East Coast HSR (AECOM et al. 2013a, 3). However, visions of endless growth formulated by government planners raised a crucial question that would come to define the next decade of high-speed rail planning. This question was put simply by Dr Ken Henry AC, one of Australia's most senior bureaucrats, who asked: "Will they live in our current major cities and regional centres, or will they live in cities we haven't yet even started to build?" (Henry quoted in Guest 2009)

A global debate exploring the urban and political dimensions of Ken Henry's question played out in parallel to debates about population growth in Australia as the United Nations (UN) and the Organization for Economic Cooperation and Development (OECD) grappled with the social, economic and environmental challenges of a new 'urban age'. Analyses by UN Habitat (2006) and the United Nations Population Fund (UNFPA) (2007) found the world reached a demographic threshold in 2007 where fifty-percent of its population lived in cities. Accordingly, the UN urban age declaration signalled a shift in the focus of international development agencies from rural geographies in 'underdeveloped' nations to urban geographies in 'developing' nations where the world's poor increasingly lived (UNFPA 2007, 2). Central to the UN declaration was a vision "to ensure a balanced and equitable distribution of resources" (UNFPA 2007, 26) that contained a crucial institutional dimension as well as a geographic one. The development of medium and small-sized cities, it was argued, held out pathways to urban democracy and reducing the impacts of urbanisation on the environment. Communities living in small and medium-sized cities could also

> . . . benefit from the worldwide trend towards political and administrative decentralization, under which national governments are devolving some of their powers and revenue-raising authority to local governments. (UNFPA 2007, 10)

The urban and political dimensions of the UN declaration were understood quite differently in Australia, a relatively prosperous nation where more than three-quarters of the population already lived in cities (see ABS 2006). Alternative discourses promulgated by influential non-government organisations in Europe and the USA instead held sway with policymakers. Academic institutions such as the London School of Economics and Harvard University, and management consulting firms such as McKinsey, sought to focus

the attention of policymakers around the world on the economic potential of megacities (see Glaeser 2011, see McKinsey 2001, 2009, 2011, Burdett and Sudjic 2007, 2011). Books heralding the "Triumph of the City" (Glaeser 2011) and the role of megacities in national economic and political life (Burdett and Sudjic 2007, 2011) confirmed the status of Australia's state capital cities as "engines of prosperity" (Kelly et al. 2014) and reinforced a historical bias towards "metropolitan dominance" in regional policy making (see Rowland 1977, 176). Evidence of this can be found in the well-spring of 'urban' policy that flowed from the 2007 federal election including the first National Urban Policy (see Australian Government 2011) and numerous proposals for "transformative" infrastructure projects in Brisbane, Melbourne and Sydney (see Infrastructure Australia 2009, 11).

Steps taken by Labor between 2008 and 2013 to centralise urban and regional policy are equally relevant to understanding the context for high-speed rail planning. Infrastructure Australia, a statutory body established inside the Commonwealth government Department of Infrastructure and Transport (DoIT), supplies a salient example of this. Infrastructure Australia was led by an Infrastructure Coordinator and twelve-member Infrastructure Council—all appointed by the responsible Minister—and tasked with prioritizing and progressing nationally-significant infrastructure projects (Parliament of Australia 2008). It was also responsible to "[advise] governments, investors and infrastructure owners on a wide range of issues" including "current and future infrastructure needs; mechanisms for financing infrastructure investments; policy, pricing and regulation and their impact on investment" (DoIT 2009, 105). In another example of policy centralisation, Labor established a Major Cities Unit (MCU) inside DoIT to provide advice on urban planning issues to the Commonwealth government and to assess the performance of metropolitan planning strategies developed by State and Territory governments (James 2010). The MCU worked with Infrastructure Australia to promote the Commonwealth government's economic and strategic objectives by developing policies that shaped Australia's cities and regions.

Strategic planning and infrastructure policy held a privileged position in Labor's urban agenda for their potential to improve the social, economic and environmental performance of cities (ALP 2007, v). By contrast, Coalition governments typically avoid intervening into urban spatial policy—the constitutional responsibility of State and Territory governments (Gleeson 2001)—and instead pursue their economic and strategic objectives for cities and regions through aspatial policies such as regulatory and taxation reforms (see Dow 2015, Dodson 2016). Labor's 2007 federal election win thus marked a

transition in Australia from a period of 'rolled back' neoliberalism—characterized by state retrenchment and ambivalence towards spatial policy—to a period of 'rolled out' neoliberalism where the state plays an active role in shaping urban space (see Peck and Tickell 2002a). Federal Labor's embrace of strategic spatial planning and national infrastructure policy marked another phase in the evolution of neoliberalism in Australia where Commonwealth intervention is deemed necessary to overcome geographic and institutional constraints to capitalist development. Accordingly, Kevin Rudd's big Australia would be governed by a "new era of cooperative federalism" that blended third-way political ideology and more traditional forms of central state planning (Rudd quoted in Metherell 2007). Upon winning the 2007 federal election, he proclaimed:

> I want to put aside the old battles of the past . . . between business and unions . . . growth and environment . . . federal and state . . . public and private . . . It's time for a new page to be written in our nation's history. (Rudd quoted in Cuthbertson 2007)

7.2. Framing the context for high-speed rail planning

It was soon after the 2007 federal election that policy entrepreneurs set about translating Labor's urban agenda into a vision for high-speed rail development. Three reports published by non-government groups between 2008 and 2010 framed the context for project planning. The reports were published during a period referred to in this study as the 'informal' planning phase. This section analyses the rationalities and practices that underpinned two of the reports: *High Speed Rail for Australia: An opportunity for the 21st century* published by the Canberra Business Council (CBC) in April 2008,[5] and *High-speed Rail: Strategic information for the Australian context* published by the Collaborative Research Centre for Rail Innovation (CRC for Rail Innovation) in January 2010. The next section analyses a third report published by Infrastructure Partnerships Australia (IPA) and AECOM in August 2010 titled *East Coast High Capacity Infrastructure Corridors: A realistic pathway to very fast trains*. Subsequent sections in this chapter analyse the institutional structures that underpinned the 'formal' planning phase, which commenced in October 2010 when DoIT released the terms of reference for a high-speed rail study (see Australian Government 2010).

The reports by CBC, the CRC for Rail Innovation and IPA and AECOM delineate a network of non-state actors that influenced planning for East Coast HSR. DoIT recognised CBC, the CRC for Rail Innovation and IPA as "key stakeholders" during the

formal planning phase and one or more representatives from each organisation were "consulted and contributed their views through a HSR Reference Group" (HSR Advisory Group 2013, 9). The HSR Reference Group also comprised the Australasian Railway Association (ARA), who represent the interests of public and private organisations in the domestic railway industry, the Australian Local Government Association (ALGA), who represent the interests of Local governments to the Commonwealth government, and representatives of the ACT, NSW, Queensland and Victorian governments (HSR Advisory Group 2013, 9). Finally, AECOM, who partnered with IPA to publish the *High Capacity Infrastructure Corridors* report, led the consortium of private firms that DoIT commissioned in January 2011 to prepare the East Coast HSR study for the Commonwealth government (see AECOM et al. 2011, ii).

It is pertinent to clarify what the 'government-led' approach to high-speed rail planning means before continuing the analysis because numerous state and non-state actors were involved in East Coast HSR. The nomenclature 'government-led' is used in this study to highlight the authority of the Commonwealth government in project planning. The East Coast HSR study was "managed" by DoIT under the authority of the responsible Minister, Hon. Anthony Albanese MP (Australian Government 2010), and the field research found strong evidence that government assumed a leadership role in project planning. The East Coast HSR study was developed in two phases (see Chapter 6). Jay Stricker, the Director of Transport at AECOM and Project Manager of the Phase 2 study, recalled the Department were "very active participants" throughout the planning process (Participant 56). The Department "were asking us, as their expert advisors, the whole consortium, to provide them with options" and "it was very collaborative" according to Stricker: "They were providing guidance on what would be acceptable to them and what wouldn't, but basically, they wanted us to come up with the options and to document everything" (Participant 56). Nevertheless, non-state actors shaped East Coast HSR during the informal planning phase because the spatial strategies and policy frameworks documented in the CBC, CRC for Rail Innovation and IPA and AECOM reports influenced the Commonwealth government study.

The CBC (2008) report gives one example of how non-government groups influenced East Coast HSR by positioning the case for high-speed rail development in opposition to air travel. "Since the ending of Australia's last high speed rail project in 2000," the CBC contends, "many changes have occurred which suggest that this form of transport should be re-examined" (CBC 2008, 3). Foremost among the changes cited are rising energy prices and growing public concern about the impacts of climate change on

urban and natural environments (CBC 2008, 5). Accordingly, the CBC argued that powering high-speed rail using renewable energy sources could reduce carbon emissions from intercity air travel and mitigate the impacts of climate change (CBC 2008, 6). The "opportunity for Australia" is that "travel would be undertaken in a more climate-friendly way that greatly reduced carbon dioxide emissions compared with alternative modes" (CBC 2008, 7). Beyond these environmental considerations, CBC argued that two additional changes had improved the economic and commercial case for high-speed rail development in Australia.

First, technological developments in recent decades had increased the operational speed of trains and extended the potential reach of their economic influence. Projects constructed in Japan and Europe between the 1960s and 1990s typically achieved speeds of between 200 km/h and 300 km/h, whereas projects constructed in more recent decades frequently achieved speeds of 350 km/h (CBC 2008, 4). In Australia, where major cities are separated by greater distances than cities in Japan or Europe, faster train speeds could allow high-speed rail to compete against air travel by capturing a dominant share of the intercity travel market—up to 60% according to the author/s of the report (CBC 2008, 4). Second, the CBC (2008, 4) argued that increased competition in global markets for high-speed train technologies had reduced procurement costs and improved the commercial case for high-speed rail development in Australia. Financial risks associated with network development could be reduced, the author/s argued, if governments pursed a "market driven" solution that outsourced network planning, construction and operations to a private consortium through a competitive process instead of pursuing a "technology driven" solution where government worked with a preferred technology supplier to plan and develop the network (CBC 2008, 8).

The rationalities and practices that underpinned the CBC report gained varying degrees of traction in the government's high-speed rail study. On one hand, CBC established a relationship between high-speed rail development and environmental policy that influenced the scale, structure and mobility characteristics of East Coast HSR. To reduce carbon emissions, both studies proposed a national-scale network that used trains travelling at 350 km/h to capture a dominant share of the intercity travel market from air carriers (see AECOM et al. 2013a, 3-4, CBC 2008, 4-5). Notably, this environmental goal is underpinned by neoliberal rationalities that promote economic competition and growth and the geographic expansion of metropolitan labour markets. On the other hand, the model of project governance advanced by CBC was not adopted by government policymakers. CBC proposed a 'market driven' solution for project delivery that

outsourced planning to the private-sector, whereas East Coast HSR proposed a 'technology driven' solution that necessitated ongoing government involvement (see CBC 2008, 8). This bias towards a market-led approach to project planning arguably reflected the mission and purpose of CBC. In the words of CEO Robyn Hendry:

> our strategic objective is to grow the economy. To increase interactivity between the region and the ACT in order to grow the economy and, in particular, to reduce our vulnerability to the ebbs and flows of federal government expenditure reforms, so that we are more resilient as an economy. Therefore, we look to grow the private sector. (Participant 48)

The CRC for Rail Innovation emphasised a similar set of policy concerns to argue the case for high-speed rail development. However, the vision of project governance articulated by the report's authors diverged markedly from the vision of CBC because they argued for government leadership in project planning and delivery. For example, CBC promoted the use of propriety technology to reduce commercial risk and procurement costs (CBC 2008, 8), while the CRC for Rail Innovation argued "the cheapest rolling stock solution . . . may not allow the best infrastructure solution" because system constraints and user needs particular to the Australian context would necessitate a custom design solution (CRC for Rail Innovation 2010, 49). In a related example that highlights ideological differences between the two organisations, the CBC argued "[t]here is no point in undertaking yet another feasibility study [because] high speed rail has been studied in Australia since 1984" (CBC 2008, 7-8). By contrast, the CRC for Rail Innovation (2010, 4) argued that "major contextual changes since previous proposals" make it necessary for the Commonwealth to commission another "major concept study".

These opposing views shed light on the political economy of railway development in Australia where the interests of domestic manufacturers, engineering consulting firms and trade unions are served by government involvement in all areas of project delivery including network planning. In many respects, the CRC for Rail Innovation is the embodiment of these politics. As a Commonwealth-funded Cooperative Research Centre (CRC) its purpose is to promote industrial development by connecting universities to other public institutions and industry and business groups (see Australian Government 2018a, 11). Accordingly, the vision of project governance advanced by the CRC for Rail Innovation traces the webs of state and non-state actors that constitute Australia's railway industry. Accordingly, the authors of the report identify a range of "critical success factors" in policy areas that span the responsibility of different government levels and

industrial sectors including urban and regional planning, project finance, stakeholder management and intergovernmental relations (CRC for Rail Innovation 2010, 4; 51-58). In doing so, they framed high-speed rail development as a sociotechnical process that integrates the objectives of actors from different regional geographies and social sectors.

The authors of the CRC report drew on examples of high-speed rail development from around the world to articulate their vision of project governance. Citing numerous examples from Europe, they argue that the institutional architecture of a "successful" high-speed rail program in Australia would comprise "a multi-stakeholder framework involving a variety of funding sources and investors that have the most to benefit from the economic, social and environmental amenity that HSR offers" (CRC for Rail Innovation 2010, 21). Notably, when explicating this vision, the authors identified a governance 'gap' that distinguished the European context from Australia: "While Federal and State governments represent the key funding sources, less-familiar stakeholders such as major cities, local governments and transit agencies should also be included" (CRC for Rail Innovation 2010, 58). However, instead of exploring the potential for governance reforms to address this gap by devolving planning authority and fiscal resources to regional institutions—a foundation for regionally integrated high-speed rail planning in Europe—they assigned non-financial stakeholders such as Local governments and other regional actors the subsidiary role of "project champions" (CRC for Rail Innovation 2010, 58). Corporate actors soon stepped into this gap by conceptualising a model of spatial governance that integrated high-speed rail development with state spatial planning as well as their own commercial imperatives.

7.3. The integrated corridor strategy

The report published by IPA and AECOM was arguably more influential than the CBC and CRC for Rail Innovation reports because many of the strategies developed by its authors underpinned the East Coast HSR study. This is not surprising given that AECOM was commissioned by DoIT to prepare the government study and that IPA was represented on the HSR Reference Group. Nonetheless, the IPA and AECOM report can be understood as an evolution of the CBC and CRC reports to the extent that it combined the network structure advanced by the former organisation and the governance strategies advanced by the latter into a coherent model of spatial governance called the "integrated regional corridor development concept" (AECOM et al. 2013a, xv). Notably, where the preceding reports focused on planning opportunities for metropolitan regions, the integrated corridor strategy applied to non-metropolitan regions. The planning and

governance strategies articulated in the IPA and AECOM report thus constitute a preliminary attempt at regionally integrated high-speed rail planning.

To understand the rationalities and practices that underpin the IPA and AECOM report, it is useful to the trace the social structures that constitute each organisation. IPA is an industry group formed in 2005 to represent the interests of Australia's infrastructure sector to governments. It has a unique organisational structure for an industry group because its board "is drawn from the most senior levels of the public and business sectors" and its membership base spans diverse sectors of the Australian economy (IPA 2016, 1). This hybrid structure is reflected in IPA's dual function as an "industry public policy think tank" and "executive network" (IPA 2016, 1). Accordingly, its mission is to "bring together Australia's major public and private infrastructure organisations, harnessing deep industry expertise and our policy expertise to shape government infrastructure policy toward the best possible economic and social outcomes" (IPA 2016, 1). IPA does not advertise its membership base, so it is unclear whether Local governments or community organisations, for example, contribute to its policymaking and advocacy activities. In many respects, IPA is the embodiment of corporate state governance in contemporary Australia because it aims to "unite the key decision makers from across Australia's governments and from the private sector" (IPA 2022b, 1). In addition to hybrid institutional structures, however, we also find evidence of hybrid political rationalities, a feature Raco's conceptual framework (see Raco 2005, 324).

AECOM is a multinational engineering firm that specialises in the planning, design and management of large infrastructure projects. It has offices in every state capital city of Australia and is one of the largest providers of engineering consulting services to the Commonwealth government (ANAO 2017, 22). Like IPA, AECOM is enmeshed in the corporate state structures that govern infrastructure development in Australia. Evidence of this can be found in the career trajectories of staff who worked on the *East Coast High Capacity Infrastructure Corridors* report. David Adams, then Director of Economics at AECOM, has extensive experience working in both government and private consulting firms. In another example, Philip Davies, then Transport Director at AECOM, went on to become CEO of Infrastructure Australia. Davies is a central figure in East Coast HSR and was instrumental in winning the contract for AECOM and its consortium partners to prepare the Commonwealth government study. As Jay Stricker recalled,

> the reason that Phase 1 got off the ground was because Philip Davies . . . lobbied federal government very hard to look at high-speed rail up the East

> Coast. We did have to put in a competitive bid, but AECOM won, with our partners, the right to do that first study, which was a very high-level strategic study. (Participant 56)

Like CBC and the CRC for Rail Innovation, IPA and AECOM framed high-speed rail development as a policy response to climate change and urban congestion; however, the planning analyses and policy prescriptions contained in the report emphasised the economic dimension of these challenges. For example, the authors highlight constraints placed on national economic development by the structure and form of urban systems: "Urban development in eastern Australia is concentrated along the coast, creating congestion and imposing constraints on productivity, employment and the nation's overall economic performance" (IPA and AECOM 2010, 13). In a corollary example that positions large infrastructure development as both a social and an economic good, the authors contend: "Infrastructure is the lifeblood of the national economy. It is the key to how Australia does business, how we compete in the global economy and how we sustain the quality of life of a growing population" (IPA and AECOM 2010, 14). Additionally, recurring references to "nation building" and "national planning" throughout the report frame the national-scale and the Commonwealth government as the geographic and institutional 'fix' to Australia's economic growth and productivity challenges.

The development vision articulated by IPA and AECOM extended beyond high-speed rail development to encompass a set of spatial planning and institutional design objectives that resonate with Labor's urban agenda. Most notably, the authors frame high-speed rail development as one part of a much larger project to "future-proof Australia's infrastructure capacity on the eastern seaboard" (IPA and AECOM 2010, 15). In this vision, high-speed rail would not only increase the efficiency of intercity transport corridors, and reduce the climate impacts of air travel, but it could also facilitate planning for future urban growth. "The development of high capacity infrastructure corridors in Australia," the authors contend, "is essential to facilitate the movement of people and goods and the delivery of services, given the predicted population and density increases over the next four decades" (IPA and AECOM 2010, 9). They add:

> Such corridors should be shaped to suit utility requirements, which will become increasingly valuable as population density rises. Due to population projections, there is an urgency to protect long, preferably straight, infrastructure corridors that can accommodate civil-ready, more cost-effective utilities for the east coast of Australia. (IPA and AECOM 2010, 22)

Planning concepts that underpin the *East Coast High Capacity Infrastructure Corridors* illuminate the high ambition that sits behind the IPA and AECOM report. The authors conceptualise the corridor as a "spine" that not only connects major cities along the eastern seaboard using high-speed rail, but also "caters for road and rail traffic and utilities including energy, water, and data and communications networks" (IPA and AECOM 2010, 24). Figure 44 depicts the geography of the planning concept and the relationship of the 'spine' to existing energy infrastructures and settlement systems. Figure 45 illustrates how the high-capacity corridors could integrate high-speed rail infrastructure with other infrastructure networks. The concept holds that infrastructures servicing disparate industrial purposes can be bundled into a continuous linear structure; however, this strategy runs contrary to contemporary critiques of infrastructure development that highlight the "splintering" of infrastructure networks and related institutional architectures (Graham 2000, Graham and Marvin 2001). To promote the efficient development of national infrastructure networks, IPA and AECOM argue the Commonwealth government must use its powers to intervene into spatial planning.

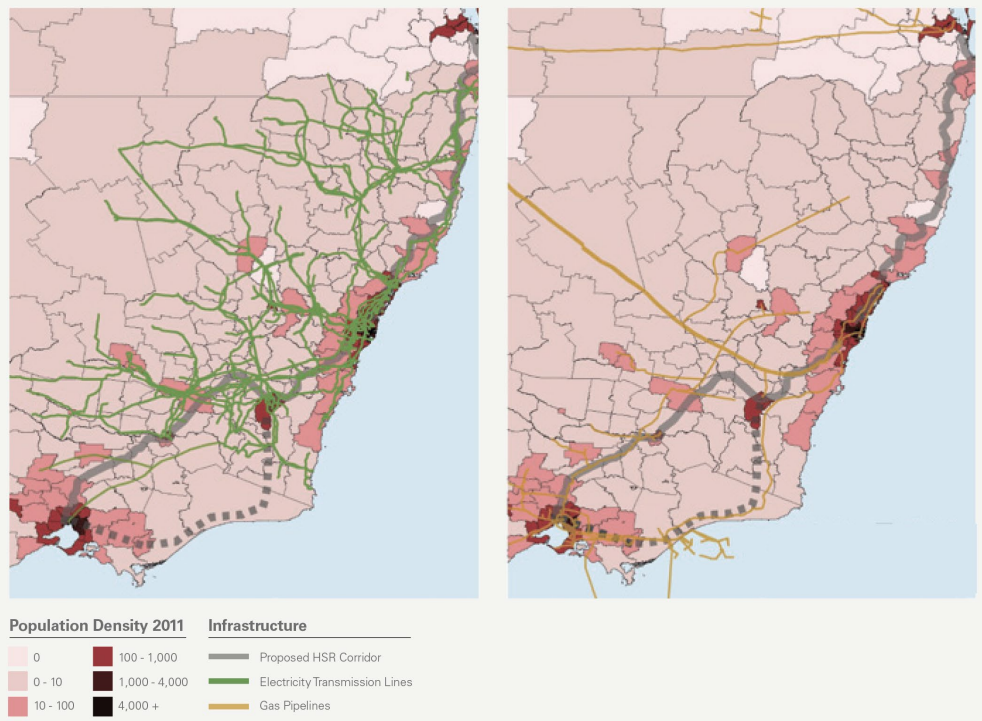
> The Federal Government is increasingly recognising its central role in meeting demand for infrastructure services. Under current arrangements, the Federal Government plays this role primarily by funding the project initiatives of state governments; but there are significant precedents for the Commonwealth to engage in an integrated, strategic planning approach. (IPA and AECOM 2010, 10)

IPA and AECOM framed high-speed rail as an opportunity for the Commonwealth government to transform the structures that govern infrastructure development and to shape settlement systems towards its own strategic goals. The authors also argue that Commonwealth intervention is necessary to overcome the institutional barriers to growth: "It is imperative the Federal Government plays a pivotal role in meeting the challenges that this involves to preserve the corridors now, enabling Australia to develop and implement a long-term approach to infrastructure planning" (IPA and AECOM 2010, 9). High-speed rail development would in turn overcome geographic barriers to growth by promoting "productivity gains, employment growth, sustainability dividends, regionalisation of industries, access to labour markets, land value uplift and growth in overall business capacity" (IPA and AECOM 2010, 10). It is pertinent to reiterate at this point in the analysis that IPA and AECOM's planning concept is the product of densely woven corporatist structures. As a model of spatial governance, it fused Labor's urban

agenda and program of institutional reforms with the desire of industry groups to "overcome [urban] problems and constraints that are already evident and progressively becoming more acute" (IPA and AECOM 2010, 10). *East Coast High Capacity Infrastructure Corridors* thus supplied a template for integrating non-metropolitan regions into the spatial economy of the dominant metropolitan regions:

> Corridor protection at the earliest possible stage allows planners to deliver infrastructure more cheaply in the future and lock in these benefits more effectively including access to lower land prices [and] creating housing affordability and choice by opening up regions served by reduced travel times (IPA and AECOM 2010, 22).

Figure 44. East coast high-capacity corridor concept



Source: IPA and AECOM (2010, 15) East Coast High Capacity Infrastructure Corridors.

Figure 45. Conceptual section of the high-capacity corridor



Source: IPA and AECOM (2010, 24) East Coast High Capacity Infrastructure Corridors.

7.4. Governing the corporate state

The Commonwealth government's proposal to establish a High Speed Rail Development Authority (HSRDA) would transpose the corporatist structures that governed project planning to the project implementation phase. As a statutory corporation legislated to manage detailed planning, network development and operations, HSRDA would be a "single coordinating authority" that functioned to "effectively and efficiently progress the detailed planning required to develop and procure an HSR system" (AECOM et al. 2013a, 464). Additionally, it would be "publicly-owned" and entrusted with "procuring and owning the required land" for the high-speed rail corridor (AECOM et al. 2013a, 40). Notably, the planning functions of HSRDA departed from planning conventions in Australia where State and Territory governments are responsible for the procurement of urban infrastructure. The authority would "take over the HSR planning, preparation and program development roles previously performed by various state and territory government departments" (AECOM et al. 2013a, 458). Despite government leadership in project planning, the institutional architecture of HSRDA exhibited two features that fuse the state and powerful non-state actors.

First, the authors of the government high-speed rail study gave scope for HSRDA to assume two different institutional forms that supply varying degrees of integration between government levels. HSRDA could be wholly-owned by the Commonwealth Government in one scenario, but in another scenario it could be jointly-owned by the Commonwealth and ACT, NSW, Queensland and Victorian governments (AECOM et al. 2013a, 40). This latter scenario would utilise a "layered approach to program governance" where legislation to establish a national authority is replicated in State parliaments and the ACT legislative assembly (see AECOM et al. 2013a, 465, Pennay 2015, 38). A national HSRDA would function "to develop, procure and integrate the HSR system, including procuring and owning the required land" (AECOM et al. 2013a, 472) while the State and Territory authorities would "coordinate and manage station developments, including the development of the station precincts" (AECOM et al. 2013a, 459).

Second, the internal structure of HSRDA adds a corporatist dimension to project governance by accommodating the interests of powerful non-state actors in the planning process. The form and functions of HSRDA are detailed in the East Coast HSR study, but the internal governance structure is instead detailed in a private member's bill introduced to the Australian Parliament by Anthony Albanese.[6] The governance and reporting structures detailed in the bill established HSRDA as a statutory authority governed by an

eleven-member board that reports directly to the responsible Minister (Parliament of Australia 2013, 14-15). The Minister appoints five board members with "appropriate qualifications, knowledge, skills or experience" (Parliament of Australia 2013, 6) and four members are nominated by the Governor or Chief Minister of each State and Territory government involved in the project (Parliament of Australia 2013, 6). Finally, one board member would represent the ARA and another would represent the ALGA.

Additional insights into the HSDRA board structure are given by the composition of another body formed by Anthony Albanese to govern high-speed rail planning. The HSR Advisory Group (2013, 7) formed in July 2013 "to advise the Australian Government on key industry and community issues arising from the [East Coast HSR study]." Members of the group included former Deputy Prime Minister, the late Hon. Tim Fischer AC, Deputy Secretary of DoIT, Lyn O'Connell PSM, CEO of the Business Council of Australia (BCA), Jennifer Westacott AO, and CEO of the ARA, the late Bryan Nye OAM. A regional city Mayor, a union leader and two planning experts were also included as members of the group (see HSR Advisory Group 2013, 7). The HSR Advisory Group was arguably a dress rehearsal for the HSRDA. Anthony Albanese confirmed this view when, during an interview for this research, he moved fluidly between members of the HSR Advisory Group and potential members of the HSRDA board while explaining considerations that informed the institutional design of HSRDA. Albanese envisaged

> . . . a structure that involves the four tiers of government—New South Wales, Queensland, Victoria and the ACT—and that involves a Local government rep and involved some other reps as well . . . I tried to extend it past the political cycle of the next election. I appointed Tim Fischer, someone from the other side of politics who was a rail enthusiast, and Jennifer Westacott, from the Business Council of Australia, to indicate that this is a serious economic project. (Participant 41)

The HSRDA board connects the hierarchic structures that constitute Australia's federal system to the networked structures that promote the interests of national business and industry groups and trade unions involved in the infrastructure sector. Consequently, HSRDA bears many hallmarks of corporatist governance as the board structure privileges the collective interest of the state and powerful non-state actors. There is an element of inevitability to this outcome because the physical scale, construction cost and financial and political risks of high-speed rail development call for strong cooperation between the Commonwealth and State and Territory governments and national-level stakeholder

groups. Nonetheless, power asymmetries built into the board structure are notable in the context of this study because they illuminate a gap between the national-level structures that govern project procurement and the regional-level structures that are to integrate high-speed rail development into Hume.

Two additional features of East Coast HSR shed light on the nature of this governance gap. First, interim arrangements intended to progress project planning before the establishment of HSRDA could reinforce power asymmetries between territorial levels. East Coast HSR can only progress, the authors of the planning study contend, if "there is a mandate to implement a preferred HSR system" based on the passage of legislation through parliament (AECOM et al. 2013a, 40). They identify the Council of Australian Governments (COAG) as the institution where political support for East Coast HSR should be built. They also set out five "preparatory gates" to promote alignment between the Commonwealth and State and Territory governments (AECOM et al. 2013c, 467). Each gate is constituted by a formal agreement between governments that further refines the project scope and objectives and establishes protocols for coordinating project planning and implementation across State and Territory borders (AECOM et al. 2013c, 467). The main objectives of the preparatory period is to harmonise state-based regulatory frameworks and to finalise governance structures and funding arrangements (AECOM et al. 2013c, 505). However, the preparatory period would also see governments establish "a clear definition of the preferred HSR system and the corridor, alignments and station locations to be protected" (AECOM et al. 2013c, 471). Consequently, the spatial parameters of East Coast HSR could be locked-in before Local governments and regional stakeholder groups have a formal role in project planning.

Second, the delivery model could also privilege the interests of powerful non-state actors in decisions about the corridor alignment and station locations in non-metropolitan regions. The government high-speed rail study explored a range of options to structure the relationship between governments and corporate actors across different stages of project procurement (see AECOM et al. 2013a, Figure 11-1). However, common to all options is that key stages in the delivery process—land acquisition and ownership, network planning and development, infrastructure maintenance and operations and rolling stock supply and operations—are structured 'vertically'. The 'public' options would see the Commonwealth establish one or more statutory corporations to plan and develop the network, maintain and operate the infrastructure and supply and operate the rolling stock. Under these delivery options, the private-sector could be involved in project delivery through the provision of consulting and construction services and the supply of

rolling stock (AECOM et al. 2013a, 483). The 'private' delivery options would see the Commonwealth concession network planning and development, infrastructure maintenance and operations and the supply and operation of rolling stock to one or more private firms. Government involvement in project delivery would be limited to land acquisition and ownership under these options (AECOM et al. 2013a, 485).

The authors of the government study also explored four "hybrid options" that would see the Commonwealth partner with one or more private consortiums to deliver East Coast HSR (AECOM et al. 2013a, 486). A public-private partnership (PPP) is preferred, they argue, because the "public HSR options perform relatively poorly in terms of likely competitiveness and potential for innovation" and the private HSR options are "problematic" due to issues with commercial feasibility, risk management, program oversight and integrating high-speed rail with regional and local transport services (AECOM et al. 2013a, 483; 485). The "preferred" PPP option would see the Commonwealth act as "public landlord" by acquiring and owning the land for the corridor and planning and developing the network, while "the operation of train services, including control of the movement of trains and maintenance of lines, would be concessioned to the private sector to serve a specific route on an exclusive basis" (AECOM et al. 2013a, Figure 11-1; 496). The private sector would play another crucial role in hybrid PPP model because station area developments in non-metropolitan regions are "combined where possible" into the network operator's contract (AECOM et al. 2013a, 496). Notably, although LVC opportunities are not analysed extensively in the government high-speed rail study, the potential profitability of station area developments influenced the government's preference for a PPP model as well as the spatial strategies recommended by project planners. As Jay Stricker remarked:

> When it came down to, you know, the local station areas, we wanted to leave the opportunity for private enterprise to come in and provide development options . . . Just getting the uplift in tax revenue for the government from developments in and around stations is a considerable contribution to funding the overall project and we felt it was best coming from the private sector. (Participant 56)

Power asymmetries built into the PPP delivery model could have significant implications for planning outcomes in Hume. It is proposed that State and Territory governments partner with corporate actors to deliver station area developments in metropolitan regions; however, station areas in non-metropolitan regions would be

delivered as a PPP between the Commonwealth and a "dominant train operations concessionaire" (AECOM et al. 2013a, 496; Figure 11-1). This procurement strategy could give non-state actors considerable influence over land use and transport network development in regional areas, despite Australian governments "underwriting a substantial proportion of the infrastructure funding" (AECOM et al. 2013a, Table 11-1; 465). The 'top-down' nature of these structures help to explain the planning issues identified in the geographic analysis such as weak connectivity between the proposed station sites and regional settlement systems (see Chapter 6). Additionally, the proposed arrangements recall a disconnect identified in the case description between the national structures that govern transport network development in Hume and the localised structures that manage land use change (see Chapter 5).

7.5. Embedding East Coast HSR into Hume

The Commonwealth envisaged that Local governments would play a facilitative role in the detailed planning and project delivery phases of East Coast HSR and that local inputs would be managed through existing governance structures. State and Territory governments "would need to have a central role in the planning and development of the HSR system, including securing the necessary development approvals" because "public funding would dominate the financial model" (AECOM et al. 2013a, 465). Local governments, on the other hand, would prepare "local zoning and development plans consistent with the state growth strategies" (AECOM et al. 2013a, 229), formulate regional policies that are "supportive and aligned" with national policies and work with "regional stakeholders to embrace and invest in the opportunities possible with HSR" (AECOM et al. 2013a, 450). While acknowledging that "local planning and leadership will be crucial to achieve positive results", network planners do not suggest that institutional reform is needed to engender positive planning outcomes in regional areas (AECOM et al. 2013a, 459).

Two roles performed by regional actors during the formal planning phase give insights into the governance practices that embedded East Coast HSR into Hume. The first and most apparent role involved Mayors of regional cities along the proposed corridor working to promote the benefits of high-speed rail development to local and national audiences. Notably, the ARA performed an enabling role in these activities by providing public platforms for Mayors to express their collective support for high-speed rail. Bryan Nye, CEO of the ARA, organised a series of forums held both before and after publication of the East Coast HSR study: at Wagga Wagga, NSW, in June 2012, at

Wodonga in January 2013 and at Parliament House, Canberra, in June 2013 (see ARA 2013a, Jones 2013, McCormack 2012). As Geoff Kettle, then Mayor of Goulburn Mulwaree Council in NSW, recalled:

> I was very, very much involved in that. In fact, when I was Mayor of Goulburn, I was the only Mayor in the lead up to the release of report that had approached the Department and spoken with them. Sat down and spoken with them. I got involved with a mob by the name of . . . the Australasian Railway Association. Bryan [Nye], God rest his soul, got in touch with me and said, "you know, you're a strong advocate for this." I said "yes." He said "well, we're going to push it. We're going to start and we're going to have a forum in Wagga Wagga. (Participant 51)

In addition to participating in public forums, the Mayors formed the Coalition of Councils for High Speed Rail (the Coalition of Councils) "to promote high speed rail and its benefits to the broader Australian community, particularly regional Australia and advocate for constriction to commence" (Coalition of Councils 2013). Events that led to establishment of the group supply additional evidence of close coordination between the ARA and Local governments. The Coalition of Councils, which launched at the Parliament House forum in July 2013 (ARA 2013b), was governed by a Memorandum of Understanding (MoU) that committed parties "to collaborating with members of the Coalition and other stakeholders" to "publicly promote High Speed Rail" (Coalition of Councils 2013). According to Geoff Kettle, who was designated "peak spokesperson" of the group (Coalition of Councils 2013), the idea emerged from a discussion with Bryan Nye after the first forum in Wagga Wagga:

> So, at the end of the forum . . . I said "well, okay, so what do we want to do now? Where do we go from here? Bryan said "well, what I'd like to see is work done on starting to preserve the corridor." So, what I did, is that I went out and I wrote to every Council, including the ACT government, on the route between Sydney and Melbourne, and set up an MoU in support of high-speed rail. I had every Council bar one, I think, sign the MoU to keep lobbying with the ARA for high-speed rail. (Participant 51)

Emma Woods, the General Manager of Passenger and Corporate Services at ARA, generally confirmed Geoff Kettle's account of the events. "The Goulburn Mayor at the

time," Woods recalled, "was very pro high-speed rail and he recognized that they weren't going to get a stop, at least not in the 2013 plan, but I think there was potentially a manufacturing opportunity for Goulburn" (Participant 38). Woods also explained that Bryan Nye "was passionate himself [about high-speed rail] and he very much saw it as the future of Australia—the need to decentralize our population and the regional development opportunities that it would provide" (Participant 38). Nye lobbied the Commonwealth on behalf of ARA members to develop high-speed rail and, according to Woods, engaged in activities of the HSR Reference Group more vigorously than representatives from other business and industry groups. Woods' account of Nye's activities during the informal planning phase suggests that ARA supplied a bridge between state actors at the national and regional levels by working to align their activities: "we did work with a lot of the Councils along the route", she said (Participant 38).

Another role played by regional actors involved Council officers meeting with project planners to discuss station location options. Planners from the DoIT High Speed Rail Unit worked with Local governments along the proposed corridor to inform the second East Coast HSR study published in July 2013. According to Jay Stricker, AECOM and its consortium partners supported the consultation process by developing station location options based on desktop analyses of local conditions and planning controls (Participant 56). Stricker disclosed that DoIT held meetings with Local governments "behind-closed-doors" and "[took] a couple of draft alignments for the purposes of discussion, but they didn't leave them there" (Participant 56). Council officers did not disclose information about these meetings during the field research; however, the location and nature of local strategic projects that emerged in subsequent years suggest the meetings helped to align the strategic objectives of different government levels. Stricker also noted that non-state actors were involved in the meetings:

> as you probably know, this did not go out for public consultation at all. It was kept very quiet. However, people within the high-speed rail unit, who sometimes took with them a couple of selected people from our consortium, would go and talk to Local government and a couple of industry leaders—in the regional areas in particular—to test 'if we were to put a high-speed rail corridor through here, what would you think about that?' (Participant 56)

7.5.1. Missed opportunities in Albury-Wodonga

These insights show that national actors used a combination of formal and informal structures to embed East Coast HSR into Hume. Spatial planning by governments was coordinated through the hierarchic structures that constitute Australia's federal system, while the promotional activities of Mayors and the ARA were coordinated through associational structures. This latter set of interactions imbued the structures that connected national actors to regional actors in Hume with a corporatist dimension; however, the Commonwealth gave no sign that these informal structures would be formalised like the corporate state structures of HSRDA. However, local perspectives obtained during the field research suggested that tangible institutional reforms are needed to effectively integrate East Coast HSR into Hume. Tensions between the objectives of national actors and regional actors in Albury-Wodonga provide a salient example of this. Albury Council publicly supported East Coast HSR and was a member of the Coalition of Councils; nevertheless, Council harboured significant concerns about the proposal to locate a station site near Wodonga Logic.[7] Apparently, Council was untroubled by the decision to locate the station in Victoria instead of NSW, but it was concerned that development on the station site could compete with development in Albury-Wodonga and thus diminish the potential for social and economic benefits to accrue to both cities. As one Council officer recalled:

> We had some concerns around the location of the proposed station, which was twenty-five kilometres southwest of Wodonga in the Barnawartha area . . . We really questioned [the government] study, which said "well, that's the modelling we did but we've actually put it twenty-five kilometres out." So, we said "well, that's not going to work for a number of reasons, as I mentioned, like access and connectivity, but also the fact that there would need to be significant investment in some sort of satellite city or town to support that station, and a connected shuttle service or links of some sort to get people back into Albury-Wodonga. (Participant 37)

This critique of East Coast HSR communicates a desire for stronger connectivity between the station sites and regional cities. In the words of the Council officer, "we want to make sure that the station location is either adjacent to or not far from the other transport modes . . . our support is for a high-speed rail station within the setting of the regional centre, or in close proximity to Albury-Wodonga" (Participant 37). On the Victorian side of the border, the City of Wodonga did not object to the proposed station site as strongly as their counterparts in NSW, but similar concerns were expressed about

a lack of connectivity to urban land uses and public transport networks. Council viewed East Coast HSR as an opportunity to support recent public investments in Wodonga Logic by incorporating the station into the hub; however, project planners instead located the station on a large greenfield site approximately 2 km west of Logic. The preferred site met basic criteria for siting station area developments—including LVC potential—because it is surrounded by agricultural land that is flat and unencumbered by flood overlays or development controls. However, Council was equally keen to exploit the LVC opportunities enabled by high-speed rail development. Michael Gobel, Director of Investment Attraction at the City of Wodonga at the time, argued the station site should instead be integrated into the Logic intermodal freight hub.

> I ended up writing a submission on behalf of the Council saying, "we support it being there, understanding some of these assumptions and limitations around the trajectory, understanding the rationale of it being out of town, that being the case, we think that's a good location, but you could also consider it being within Logic itself." They had discounted it as being disruptive to the function of the Logic hub, but Council didn't see it as being prohibitive or in any way an encumbrance, really, and more as an asset. (Participant 25)

At the regional-level, Gobel felt that East Coast HSR supplied opportunities to promote cross-border cooperation if the Commonwealth government allowed both Councils to inform the station location. Gobel recalled that Wodonga Council, like Albury Council, "suggested, potentially, [a station] between Barnawartha and Wodonga, because along the Hume corridor there are some potential opportunities . . . a transport hub station and more of an integrated commercial and residential development that may leverage high-speed rail" (Participant 25). This planning concept demonstrates a degree of alignment between Councils on opposite sides of a state border. It could also provide the foundation for a regionally integrated approach to high-speed rail planning because a station site along the Hume corridor—closer to Wodonga—would be better connected to local land uses and regional transport systems than the site preferred by network planners. However, the planning concept exceeds the scope for 'local inputs' envisaged by the Commonwealth because corridor planning would be opened to greater influence from Local governments. Gobel envisaged a different approach to corridor planning that could engender alignment between governments on both sides of the border and stronger local-level support for high-speed rail:

> providing a little bit more certainty as to the limits of the corridor, within a certain margin of error. The corridor could be between twenty-kilometres west or twenty-kilometres east of this line, you know, and I say this because the community needs some certainty about where the corridor would be. In creating that certainty, you could have an alignment of vested interest that can play a stronger advocacy role . . . but if there was greater certainty about the corridor and station locations then like-minded Local governments could be that constant and persistent advocate for the benefits of high-speed rail. (Participant 25)

7.5.2. Further planning work in Greater Shepparton

In Greater Shepparton, on the other hand, DoIT and Council appeared to agree on the location of the preferred station site—approximately 10 km east of the city centre. Jay Stricker said, when reflecting on the technical challenges of integrating high-speed rail stations into non-metropolitan regions, that "I think we got it pretty right [in Shepparton], at least according to the local Council" (Participant 56). New directions for planning in Shepparton that emerged after the publication of the East Coast HSR study corroborate Stricker's view. For example, plans to relocate a local airport to the proposed station site, which emerged in 2017 (see Chapter 6), indicate strong alignment between government levels. The Commonwealth envisaged that State and Local governments would develop "complimentary assets" as part of the integrated corridor strategy (AECOM et al. 2013a, 458), and so Council planners in Shepparton took steps to embed East Coast HSR in advance of the detailed planning phase. Stricker also recalled that Council exhibited a high degree of enthusiasm and engagement, which gives additional evidence of alignment between government levels:

> I keep coming back to Shepparton because they really impressed me with their activism, I suppose, and their awareness of the advantages and the disadvantages. They were prepared to take on board planning for the eventuality of a high-speed rail development . . . actively zoning for certain types of industries and facilities that could take advantage of high-speed rail access. (Participant 56)

Interviews with research participants from Greater Shepparton confirmed Stricker's account of Council's support for East Coast HSR. As noted, Council officers did not

disclose details of the meetings with Commonwealth planners, but they did speak about lobbying work by regional actors to influence the corridor alignment. In the first instance, local actors worked through formal political and bureaucratic channels to advocate for Shepparton's inclusion in the network. Anecdotal evidence collected during a related academic project indicate that senior political figures also played a role.[8] The late Tim Fischer, a former Deputy Prime Minister (1996-99) and member of the HSR Advisory Group, was mentioned frequently by research participants when recalling their lobbying efforts. Fischer is also noted in local media for coining the "Shepparton swerve"—a term used to promote Shepparton's inclusion in East Coast HSR by a deviation from the Hume corridor alignment (Lewis 2014). Lobbying work by regional actors thus secured Shepparton's integration into the network. As one Council officer recalled:

> we did a lot of advocacy work, originally with the Commonwealth government, to ensure that Shepparton was one of the high-speed rail stops because, originally, I think, one of the options was to run it straight up the Hume . . . and then there was what they called the 'Shepp-deviation'. We lobbied very hard, you know, when there was another [report] . . . Yes, we were quite delighted then when we saw that they agreed, and the route confirmed that any high-speed rail would have a Shepparton and then an Albury stop. (Participant 13)

Notwithstanding this initial success, Council anticipates that considerable planning work will be required to effectively integrate East Coast HSR into local land uses and public transport network. Peter Harriott, CEO of the City of Greater Shepparton, touched upon the technical and institutional complexities involved in connecting the station site to the city and engendering policy alignment between government levels. Additionally, he and other research participants raised issues with the current scope and strategic objectives of East Coast HSR. Harriott opined that network planners focused on a narrow set of national economic and transport policy objectives and that more work is required to incorporate non-metropolitan regions into the project vision. Accordingly, he suggests that policymakers need to reconceptualise their understanding of the project to promote a regionally integrated approach to its planning:

> The initial work on high-speed rail, I don't think, was concentrated on how it can be leveraged for the region or for the nation's benefit in utilizing the points along the way. It was about Sydney to Melbourne. Okay, it's got the most

> congested air route between the two cities, therefore a rail service should work. It should be able to compete. It should be able to take some of that traffic and therefore is justifiable on that basis alone. Without thinking, how is this going to transform the regions in between? So, I think, right, now that we're coming back at it, we should look at it in detail and what does it mean? It's going to link a whole heap of other things around that rail and those stations. (Participant 10)

7.6. Summary

Regional-level perspectives on East Coast HSR gave insights into a gap in project governance that exist between the national and regional levels. The structures governing network planning are insufficiently devolved to accommodate the strategic goals of Local governments in Hume. This problem is more apparent in Albury-Wodonga but is nevertheless apparent in Greater Shepparton, evidenced by Council concerns about connecting the proposed station site to existing urban areas. East Coast HSR is in the initial planning phases and future phases could address these issues and concerns. However, the top-down nature of project governance structures does not bode well for the planning prospects of regional communities. Project planning was enacted through hierarchic multilevel structures that integrate the economic and political objectives of the Commonwealth and State and Territory governments with the commercial objectives of national business and industry groups. Notwithstanding the initial success of actors in Greater Shepparton, who secured a stop in the East Coast HSR network after extensive lobbying work, the current institutional structures supplied limited scope for regional actors to promote alternative corridor planning strategies.

East Coast HSR is underpinned by a form of corporate state governance that privileges linkages between the state and powerful non-state actors over linkages to actors at the regional level. National actors cultivated a model of spatial governance called he ‘integrated corridor strategy’ which promoted the economic and political objectives of the Commonwealth in spatial planning and regional policy. On the other hand, the commercial objectives of non-state actors are promoted through the preferred model of network governance—a government-regulated monopoly—which includes rights to develop station sites in non-metropolitan regions. The character and form of regional integration engendered by East Coast HSR raises questions about the relationship between high-speed rail planning and regional governance that are explored in the conclusion (see Chapter 10). For now, it is sufficient to note that network planners

propose to use extant multilevel structures to embed East Coast HSR into Hume, and to promote the commercial interests of national corporate actors in project planning by retaining control over network planning and regional policy.

(9,980 words)

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5. The Canberra Business Council merged with the ACT & Region Chamber of Commerce and Industry in 2014 to form the Canberra Business Chamber (2022). The merger occurred after the publication of the CBC report and before the primary data for this research was collected.
6. Anthony Albanese introduced the High Speed Rail Planning Authority (HSRPA) 2013 Bill to the Parliament of Australia three months after Labor lost the 2013 federal election. The composition of the HSRDA board is assumed to be the same as the composition of the board detailed in the 2013 Bill.
7. In a submission to government sighted by the author, a senior Council officer encouraged DoIT to consider alternative station locations within an established urban area or designated growth corridor of Albury or Wodonga. Additionally, the Council officer encouraged DoIT to select a site adjacent to the existing Melbourne-Sydney railway corridor to connect the station site to regional transport networks and to maximize access to both cities.
8. Council officers spoke of Tim Fischer's influence on corridor planning during a meeting held as part of a Master of Landscape Architecture studio led by the author in Semester 1, 2016.

Chapter 8. CLARA Plan: the limits of market-led planning

Chapter 8 analyses the actor networks and government policies that underpin the CLARA Plan: a market-led proposal for high-speed rail and new cities developed by Consolidated Land and Rail Australia. Work on East Coast HSR ceased when the Coalition won the federal election in September 2013 because the project did not cohere with the economic and political goals of the new government. Nonetheless, the CLARA Plan emerged in 2016 as one approach to high-speed rail planning that did cohere with the Coalition's emerging infrastructure agenda. The CLARA Plan is distinct from East Coast HSR by a relative absence of governments in project planning and a heavy reliance on private finance for project procurement. Indeed, CLARA and the Commonwealth both claimed that the CLARA Plan "does not involve direct costs to government or tax payers" (Australian Government 2018b, also see CLARA 2016). As will be shown, the plan to outsource project procurement entirely to the private sector could have significant implications for spatial planning and regional governance in Hume.

The structure of this chapter follows the structure of Chapter 7. The first two sections explore the political rationalities and planning discourses that framed the CLARA Plan (RQ3) while the next two sections examine the national and regional level project governance structures (RQ4). In contrast to Chapter 7, which focused on the Commonwealth and Local government levels, the analysis in this chapter will focus on the Commonwealth and State government levels where, between 2014 and 2017, numerous policy reforms were introduced to promote private investment in public infrastructure. Maintaining focus on these government levels serves two other purposes in the research. First, it allows for in depth analysis of policy reforms in Victoria that also apply to the InterCity Blueprint—the 'hybrid' proposal for high-speed rail analysed in Chapter 9. Second, it reflects the finding that CLARA obtained less traction for its plan among regional actors than East Coast HSR and InterCity obtained.

8.1. A conservative urban agenda

The origins of market-led high-speed rail planning can be traced to a period between 2008 and 2013 when the Coalition was in opposition. It was during this time that leaders of the Liberal Party established the Vision 2020 group to formulate election policies and chart a new course for government when returned to power. According to the Hon. Andrew Robb AO, a Liberal MP and founding Chair of the group, the work of Vision 2020 was underpinned by "four simple pillars of reform" that comprised fiscal restraint,

small government, a culture of personal responsibility and public-sector efficiency (Robb 2012). As Minister for Trade and Investment in the Coalition government, Robb (2014) pursued these goals by "aiming to displace over-regulation and excessive government spending from centre stage in our economy, and replace it with growth largely driven by the private sector." When the federal Coalition returned to power in September 2013, the imprints of Vision 2020 could be found on many areas of Commonwealth responsibility including transport infrastructure investment. However, it would take the Coalition several years to formulate a formal position on high-speed rail.

The new Prime Minister, Hon. Tony Abbott MP, made public his distaste for passenger rail and the political cultures associated with its development. Abbott wanted to be known as the "infrastructure prime minister" (Abbott quoted in Kelly and Donegan 2013) but his vision for Commonwealth infrastructure investment was limited to "building the roads of the 21st century" (Abbott quoted in Milman 2013). "The problem is the economics of public transport in a suburban metropolis," Abbott (2009, 173-74) argued in his political manifesto *Battlelines*: "there just aren't enough people wanting to go from a particular place to a particular destination at a particular time to justify any vehicle larger than a car, and cars need roads." Abbott's position on urban rail is best understood through a partisan lens because he believed public investment in "inefficient, over-manned, union-dominated, government-run train and bus systems" benefited Labor governments (Abbott quoted in Saulwick 2014). This position is informed by a broader social and cultural vision that connected mass automobility and suburbanisation to individualised forms of social and political empowerment and freedom from government.

> The humblest person is king in his own car. Drivers choose the destination, the route, the time of departure, the music that's played and whether to have company. Women, especially, tend to value the sense of security that a car can give. For people whose lives otherwise run largely at the beck and call of others, that's no small freedom. It should not be underestimated or sneered at by senior policy makers who are more accustomed to getting their own way . . . For too long, policy makers have ranked motorists just above heavy drinkers and smokers as social pariahs. (Abbott 2009, 174)

Tony Abbott's ideological disposition influenced the Commonwealth government's infrastructure investment priorities in profound ways. When in government, Abbott acted on a threat that he made to Labor State Premiers before the federal election to divert Commonwealth funds from passenger rail projects to road

projects. He argued "the Commonwealth government has a long history of funding roads. We have no history of funding urban rail and I think it's important that we stick to our knitting, and the Commonwealth's knitting when it comes to funding infrastructure is roads" (Abbott quoted in Carey and Gordon 2013). Abbott and his cabinet restructured numerous institutions established by Labor to inform infrastructure planning and urban policy. The corporatisation of Infrastructure Australia gives an example of how the four simple pillars of reform translated to infrastructure governance. Under Labor, Infrastructure Australia suffered sustained criticism from national business and industry groups because of alleged "inconsistent priorities between political government and Infrastructure Australia's work programme and prioritisation of projects" (IPA 2013, 1, also see BCA 2014). When in power, the Coalition moved swiftly to re-establish Infrastructure Australia as a quasi-non-government organisation with its own board responsible "to decide the objectives, strategies and policies to be followed by Infrastructure Australia" (Parliament of Australia 2014a, 10).

The Coalition also restructured Commonwealth faculties established by Labor to inform urban and regional policy. The MCU was "axed" in 2013 (Thistleton 2013) and the national urban policy was effectively "abandoned" in 2014 (Dow 2015). Urban policy reforms spilled over into regional policy when the Coalition commissioned an independent review of RDA to "examine the effectiveness of the RDA programme in delivering the Australian Government's regional agenda" (Australian Government 2016a). The review found that RDA committees had become too involved in planning activities that "duplicate activities performed by state and local government bodies" and thus infringed "[smaller] government reforms designed to manage the size and shape of government and cut waste and duplication" (Australian Government 2016a, 3; 20). Consequently, the Coalition "[refocused] the RDA Program so that RDA Committees move beyond their previous planning role and into a more active and facilitative role, effectively being brokers for regional investment" (Australian Government 2017a, 2, also see RDA 2017).

These developments reflect a consensus among leaders of the Coalition that urban spatial planning is "not our jurisdiction" (Hon. Joe Hockey MP quoted in Dow 2015). The four simple pillars of reform set down by Vision 2020 instead privileged 'spatially blind' policies, consistent with conservative political thinking in the UK and Unites States of America (see Collits 2015, Baker and Wong 2013, Hall 2009a). Most notably, the principle of personal responsibility—related to another conservative shibboleth, personal freedom—found expression through a set of public investment priorities that privileged

mass-automobility. Curiously, the principal of fiscal restraint was not expressed in Commonwealth infrastructure policy at that time as the Coalition maintained the high-levels of expenditure reached under the previous Labor government (IPA 2022a, Figure 13). Herein lies a conservative urban agenda that, although spatially blind, approximated the growth ambitions of Rudd's 'big Australia' (see ABC News 2009, Guest 2009). In Tony Abbott's own words:

> Our big cities are no less vital to our economy than our vast resource developments and can properly be considered part of our national economic infrastructure. Almost nothing builds confidence more than seeing cranes over our cities and almost nothing signifies progress more than new roads. (Abbott 2012)

8.2. A 'perfect storm of opportunity'

Abbott's reform agenda did not bode well for East Coast HSR. He disbanded the High Speed Rail Advisory Group in November 2013, effectively terminating the project (Maher and Crowe 2013). Additionally, the federal Coalition committed $6 billion to construct a second Sydney airport (Benson 2013), negating the economic case for interstate high-speed rail. It also committed $10 billion to construct Inland Rail (Truss 2013), the 'rail freight super-highway' connecting Brisbane and Melbourne (see Chapter 5), a priority project for the National Party. Nevertheless, termination of East Coast HSR catalysed a search inside the Coalition for a new approach to high-speed rail planning that was attuned to the ideological disposition of its leader. John Alexander OAM, a Liberal MP elected to parliament in 2010, worked inside the Coalition during this period to build a case for high-speed rail. Alexander voiced strong support for the project in parliament (see Alexander 2012), addressed numerous regional and national forums on the topic (ARA 2013b, Jones 2013) and visited Japan to study options for project funding and finance (Interview notes, Participant 40). He also worked closely with Andrew Robb, another advocate for high-speed rail inside the Coalition. Robb made Alexander Chair of the Vision 2020 policy group and the two often exchanged ideas about the project. "You've got to de-risk and de-debt," Robb told Alexander when outlining his vision for high-speed rail (Participant 40), which prompted Alexander to explore LVC as a mechanism for project funding and finance:

> I think the 2013 [East Coast HSR] study was oblivious to the opportunity of value capture. The alignment, the corridor that ought to be secured, must consider opportunities of value capture because that's what's going to fund it. Unless you're flowing in money and you think you don't need it, okay, but those days are past. (Participant 40)

Two aspects of LVC resonated most strongly with the Coalition's reform agenda. First, in principle, LVC could mitigate the impact of passenger rail projects on government coffers by harnessing more of the revenue streams generated by connectivity and accessibility improvements. As John Alexander explained, "the thing that really got us over the hurdle was, that it was a real estate deal. That if you connected regions and made them within 15-minutes or 30-minutes of a CBD, those lands that you brought closer in time . . . would have a dramatic impact on the value of those lands" (Participant 40). Second, Alexander wanted to integrate the commercial objectives of the private sector with the economic objectives of governments, thus expanding the role of corporate actors in the procurement of public projects. LVC overcame a crucial 'hurdle' to gaining support for high-speed rail inside the Coalition because of its potential to devolve power over infrastructure planning to development interests in the property, construction and finance sectors. Alexander said that

> All I could see was a real estate deal and this greenfield site and you can lift up the value through the connectivity of high-speed rail and real estate. And because of the extraordinary differences in land value we actually have the perfect precondition, this *perfect storm of opportunity*, through infrastructure. (Participant 40, emphasis added)

Initially, John Alexander's vision for high-speed rail did not gain traction inside the Coalition because of the Prime Minister's ambivalence towards passenger rail. "Tony Abbott was really hard work," Alexander recalled, "and one day I had to call his mate and say, 'Oh God, I'm so damn frustrated!' And Tony came up [to me] and said, 'mate, I get it, it's about Gundagai, growing!' I said, 'bingo! You've got it, you've got it' . . . But it took a long while" (Participant 40). Meanwhile, however, the political fortunes of the Prime Minister turned by the time Alexander got his message through. The economic instability visited upon Labor by the GFC had now visited the Coalition. Controversial policies to reduce government debt by cutting expenditure on public services caused Abbott's popularity among electors to plummet (Frew 2015, Lester 2015). Fearing defeat

at the next federal election in 2016, Liberal MPs deposed Abbott as Prime Minister in September 2015 and replaced him with Hon. Malcolm Turnbull MP AC, an advocate for cities who argued that "there is no place for ideology" in urban transport planning (Turnbull quoted in Sydney Morning Herald 2015).

The Commonwealth government took a stronger interest in cities under Malcolm Turnbull's leadership, but instead of restoring the bureaucratic policy architectures established by Labor, the Coalition adopted a more entrepreneurial approach. A 'smart cities' plan, for example, sought to expand private-sector involvement in urban planning by using private finance in public projects and developing new models of public finance for use in public projects (Australian Government 2016c, 4). In another example, the Coalition established a 'city deals' program to "bring together the three levels of government, the community and the private sector . . . to accelerate growth and job creation, stimulate urban renewal and drive economic reforms to secure the future prosperity and liveability of our cities" (Australian Government 2022). In developing the program, the Commonwealth drew inspiration from the UK where city deals were introduced in 2011 to "[direct] infrastructure spending into projects that boost productivity, employment and economic growth" (SGS Economics & Planning 2017, 16). The smart cities plan and cities deal program promoted Turnbull's economic agenda to drive "jobs and growth" by increasing overall levels of public and private investment in transport infrastructure (Jeyaratnam and Courts 2016, Turnbull 2016). LVC held a privileged position in his agenda for its potential to promote planning 'innovation' by targeting Commonwealth investment towards urban renewal projects (Australian Government 2017d). Turnbull argued that

> To invest more we need to start capturing some of the value our infrastructure creates . . . This is not new, but it requires governments and planners to think outside the square, to stop thinking like transport engineers but as urbanists, builders of cities and communities. (Turnbull quoted in Safi 2016)

Malcolm Turnbull's ascension to the Prime Ministership marked a turning point for the Coalition from spatially-blind forms of urban policy consistent with 'roll-back' neoliberalism to spatially-targeted policies consistent with 'roll-out' neoliberalism observed in the UK and USA (see Peck and Tickell 2002a). Notwithstanding Abbott's ambivalence towards urban rail, which delayed the transition process, it is evident by the end of 2016 that market-led high-speed rail planning is underpinned by forms of commercial rationality that oriented the objectives of state planning more firmly towards

the objectives of financial markets. The principles set down by the Vision 2020 group—fiscal restraint, small government, a culture of personal responsibility and public-sector efficiency—survived the leadership transition in the form of new policies that expanded opportunities for private investment in public infrastructure. However, the four principles were adapted under Turnbull's leadership to give the Commonwealth government the necessary policy tools to shape regional development through spatially-targeted forms of urban investment (see Australian Government 2017d).

8.3. The master planned development model

In December 2015, only three months after Malcolm Turnbull became Prime Minister, the Coalition launched a parliamentary inquiry into transport connectivity and economic development (Parliament of Australia 2015a). Conducted by the House of Representatives Standing Committee on Infrastructure and Cities (the Standing Committee)—a bi-partisan committee chaired by John Alexander—the inquiry "[examined] the means of promoting and funding new transport infrastructure, with a particular focus on value-capture as a funding mechanism for infrastructure development" (Alexander 2015). The inquiry gave Alexander an opportunity to develop a vision for high-speed rail development that wedded principles set down by the Vision 2020 group to the Coalition's new urban agenda. The Standing Committee published their report titled *Harnessing Value, Delivering Infrastructure* in December 2016 after receiving seventy-six submissions and holding public hearings in Brisbane, Canberra, Melbourne and Sydney (Parliament of Australia 2016). Four governance strategies outlined in the report (and related policy documents) differentiate market-led high-speed rail planning from the government-led approach.

First, instead of funding public infrastructure using government grants—an "equity injection" in the case of East Coast HSR (AECOM et al. 2013a, 476)—LVC would hypothecate the revenue generated by high-speed rail development into a dedicated infrastructure fund (Parliament of Australia 2016, xx). Currently, the economic benefits produced by public investments in transport infrastructure are captured by governments through various taxes that apply to property and to income earned by companies and individuals. Stamp duties, land taxes and Council rates supply several examples of how State and Territory and Local governments capture part of the uplift in property values that result from public infrastructure investment. Broad-based taxes such as income tax, capital gains tax and payroll tax give other examples of how Commonwealth and State and Territory governments capture part of the economic benefit that falls to companies

and individuals from public infrastructure investments. The model of LVC mooted by Alexander and the Standing Committee would add a project-specific tax to current arrangements; one that is spatially targeted and administered by the Commonwealth.

> The Committee sees a need for a new value capture mechanism to be established at the federal level. With a master planning approach being applied to transport infrastructure, it is likely that the building of new transport infrastructure will be accompanied by rezoning in some form. As a result of this rezoning, it will be possible for the [Commonwealth] government to capture a portion of the uplift in property values as existing zoning shifts to other uses. (Parliament of Australia 2016, 193)

The second strategy would give the Commonwealth greater influence over spatial planning by attaching "a system for coordinating the planning and funding of major infrastructure projects across all levels of government" to LVC (Parliament of Australia 2016, xx). John Alexander argued that a commission or statutory body should be established to facilitate land use planning for nationally significant transport projects and, more broadly, to depoliticise infrastructure planning: "If you've got the investment of Infrastructure Australia and of Land Use Planning Australia, a sister agency, they then graduate this to a long-term plan and, really, the government of the day can't interfere. That's the plan" (Participant 40). These institutional structures resemble those envisaged for East Coast HSR to the extent that HSRDA—a statutory authority—would plan station area developments in partnership with subsidiary government-levels and private firms. However, LVC could give the Commonwealth greater control over the planning and prioritisation of State and Territory government projects attached to high-speed rail by restructuring the way that financial resources flow between government levels. While HSRDA used the concession contract and extant multilevel structures and fiscal arrangements to direct resources towards station area developments, LVC would, in principle, increase Commonwealth control over financial flows:

> Coordinating planning and procurement by linking funding to planning and outcomes is potentially an effective tool for coordination of transport infrastructure development. The Committee supports the concept of master funding—the creation of a single bucket of money drawn from a range of sources—hypothecated to the development of transport infrastructure. The allocation of funds to projects would be contingent upon compliance with

prescribed planning and funding requirements. (Parliament of Australia 2016, xxvii)

A third strategy sought to expand private-sector influence over state planning by using LVC to increase the stock of private capital in public infrastructure. The Standing Committee believed that "HSR can contribute significantly to the costs of its own development" and "create opportunities for private sector leadership" if governments used LVC to deliver station area developments (Parliament of Australia 2016, 75). However, the Standing Committee recommended the Commonwealth "develop a toolkit of value capture mechanisms" in consultation with State and Territory governments instead of proposing a specific model of LVC (Parliament of Australia 2016, xi). In response, Commonwealth policymakers issued a discussion paper in November 2016 titled *Using value capture to deliver major land transport infrastructure*, which "built upon" submissions to the inquiry by proposing a model of LVC called tax increment financing (TIF) (Australian Government 2016d, iv). TIF is used in the UK and USA to attract private finance to public infrastructure projects by securing finance against the future increase in tax revenues generated by a project. Policymakers in Australia promoted TIF because they believed it could "stimulate market-led proposals" (Australian Government 2016d, 37), but they also acknowledged the Commonwealth must first demonstrate the feasibility of the system by supplying loans and guarantees to State and Territory governments so that

> Banks and other private sector financiers could observe the outcomes of the projects and the success of the valuation methodology used. This in turn could help stimulate the private sector to provide loans to government on the security of incremental tax revenues from infrastructure projects. (Australian Government 2016d, 35)

The fourth and final strategy connected high-speed rail development and LVC with the objective to "[provide] opportunities for decentralisation and the creation of new centres—rebalancing patterns of settlement" (Parliament of Australia 2016, xxvi). Urban decentralisation did not feature prominently as a planning goal of East Coast HSR, which focused on network planning, transport economics and project delivery (see Australian Government 2010). By contrast, John Alexander argued in the foreword to the Standing Committee report that "[there] must be put in place a plan of decentralisation to relieve our cities of the full burden of growth by providing regions with economic opportunity

and prospects for settlement. This can be achieved through high speed connectivity to major urban areas" (Parliament of Australia 2016, viii). In Alexander's view, high-speed rail is "not about getting from Sydney to Melbourne. It's about having a spatial plan for Sydney that's rebalancing our settlement. That's rebalancing our economy. That's easing the pressure on Sydney and Melbourne, which makes those two cities unpleasant to live in" (Participant 40).

Commonwealth policymakers considered how LVC might apply to sites in various urban and regional contexts, but they were especially interested in its potential to support the development of greenfield sites in non-metropolitan regions. John Alexander was also excited by the prospect of using LVC and high-speed rail to promote what he called 'strategic decentralisation'. "To actually have a strategy of planned decentralization along a connected [high-speed rail] corridor," he opined during the interview, "you're looking at the opportunity of having six or seven cities between Sydney and Melbourne . . . Fundamentally, what this is about is creating an abundance of supply of affordable housing for generations to come" (Participant 40). Like Alexander, Commonwealth policymakers emphasised the potential for LVC to integrate the economic objectives of governments with the commercial objectives of property developers. "A key benefit of this approach," they argued, "would be to improve integrated planning outcomes by linking government public infrastructure priorities with proposed private sector developments" (Australian Government 2016d, 37). However, they also identified the potential for planning conflicts to emerge if market-based mechanisms like LVC are used for station area developments in regional areas.

> Clearly, one important consideration in developing a market-based process is its implications for urban planning in the corridor to be served by the new transport corridor. There may be tensions between urban planning objectives and the objective of securing funding towards the cost of the infrastructure project. Another important consideration is that the use of a market process of the kind described above might be possible in a greenfields location where there is no existing urban development. In existing urban areas, it might create considerable uncertainty and hence community concern. (Australian Government 2016d, 34)

The four governance strategies articulated in the *Harnessing Value, Delivering Infrastructure* report illuminate the nature of spatial governance that attends to market-led high-speed rail planning. 'Land use planning' and 'master planning' are recurring

tropes used by John Alexander and the Standing Committee to communicate a desire for greater planning certainty. For example, the Standing Committee stated that it "can see value in the idea of master planning, master funding and the creation of transport connectivity plans directly linked to dedicated funding sources . . . [this] will ensure the integrity and viability of transport infrastructure" (Parliament of Australia 2016, 150). Alexander also argued that "[infrastructure] should be comprehensively master planned a long time in advance" and "all infrastructure must have a land use plan associated with it" (Participant 40). Connecting the 'master planning' of station developments to the 'master funding' of transport infrastructure supplied, in principle, a stable framework for the accumulation of private capital. As a form of spatial governance, 'master planned development' mitigated some of the political issues that could arise from the use of LVC in non-metropolitan regions by placing station precinct planning under Commonwealth government control.

8.4. Planning for the new private state

It is evident from the analysis thus far that market-led high-speed rail planning is underpinned by a set of political rationalities that orient the strategic objectives of governments more firmly towards the commercial objectives of financial markets. The models of LVC mooted by John Alexander and the Standing Committee and by other Commonwealth policymakers give an example of this phenomenon. To understand how market-led high-speed rail planning is enacted at the Commonwealth and State government levels, the analysis will now turn to examine several governance reforms introduced by governments to promote private-sector investment in public infrastructure. Specifically, the analysis draws attention to governance reforms introduced between 2014 and 2017 that directly influenced high-speed rail planning.

8.4.1. Commonwealth government reforms

The first Commonwealth government reform that is relevant to the research involved establishment of an Infrastructure and Project Financing Agency (IPFA) in July 2017 to "[advise] Australian Government Agencies and Ministers on how to fund or finance, how to govern, how to procure and deliver, and how to structure commercial and financing arrangement in major projects" (IPFA 2019). Malcolm Turnbull signalled an intent to reform public infrastructure procurement when, early in his prime ministership, he declared the Commonwealth will "no longer be a passive ATM doling out grants" to

State and Territory governments (Turnbull quoted in Safi 2016). Turnbull established IPFA as an executive agency inside the Department of Prime Minister and Cabinet (DPMC) to help the Commonwealth take "an active investor approach to infrastructure projects, seeking a return for taxpayer investments in projects and pursuing alternate funding and finance before grants" (IPFA 2019). In the words of Leilani Frew, the organisation's inaugural CEO, "IPFA's vision is to enable commercial excellence in Australian Government infrastructure investment for the benefit of all Australians" and to "embed stronger commercial acumen across the Commonwealth as it seeks to successfully implement the Government's infrastructure agenda and ensure the best use of Commonwealth taxpayer dollars" (IPFA 2018, 1).

Media commentators viewed IPFA as "a radical new funding approach" because it recast the Commonwealth's role in infrastructure procurement from a 'funder' of projects to an 'investor' and 'broker' of private finance (Martin 2016a, also see Ludlow 2018, Taylor 2017). The decision to intervene into commercial markets for infrastructure finance attracted sharp criticism from national business and industry groups. For example, it was reported that "Brendan Lyon, the Chief Executive of Infrastructure Partnerships Australia . . . told the Treasurer in unusually blunt terms that the infrastructure financing unit should definitely not be established given there is no shortage of private debt or equity finance for infrastructure projects" (Hewett 2017). Lyon argued on behalf of the infrastructure sector that Commonwealth finance "directed to creditworthy, commercial infrastructure projects, could only 'crowd out' efficient private investment" (Lyon quoted in Hewett 2017). The Coalition established IPFA with the objective to "[share] the cost of transport projects fairly between those who benefit the most from the projects and the broader Australian community" (Australian Government 2016b), but IPA was concerned that it could impinge upon the agency and efficacy of financial markets. In a clear sign of tension between the Commonwealth, subsidiary government levels and the private-sector, Lyon protested that "Commonwealth government funding is needed for infrastructure. Commonwealth financing is not" (Lyon quoted in Hewett 2017).

A second Commonwealth government reform sought explicitly to promote private-sector investment in regional passenger rail. The Commonwealth published a *Faster Rail Prospectus* (the Prospectus) in September 2017 with the objective to "explore improvements to the rail connections between our cities and surrounding regional areas through $20 million in funding to support the development of business cases" (Australian Government 2017b, 3). The strategic goals, program scope and assessment criteria detailed in the Prospectus gave the first concrete indication of the Coalition's vision for

high-speed rail development. Most notably, Commonwealth policymakers declared "[proposals] could come from private sector proponents or consortiums, such as consortiums of property owners and developers and specialist high speed rail companies," while adding that, "State governments might also bring forward such proposals" (Australian Government 2017b, 8). Three additional features of the Prospectus outline the institutional contours of market-led high-speed rail planning.

The Prospectus departed from planning conventions in Australia by inviting proposals for major infrastructure projects developed by private consortiums independently of State and Territory governments. Interested consortiums were asked to "discuss their proposals with the relevant State and Territory governments prior to making their submissions" but were not required to obtain their consent before working with the Commonwealth (Australian Government 2017b, 18). To promote alignment between the Commonwealth and private firms during the early planning stages, successful consortiums "will be expected by the Australian Government to deliver the proposed business cases" and to pay for at least fifty-percent of the cost of business case development (Australian Government 2017b, 15-17).

Again, the consortiums were asked to consult with the relevant State or Territory government "as necessary" during the business case development, but their involvement was not a requirement of the planning process (Australian Government 2017b, 15). Two Commonwealth planners interviewed for the research discussed the novel features of this process, highlighting several issues that stemmed from bypassing State and Territory governments.

> Commonwealth planner 1: Ninety-five or ninety-nine percent of the relationships we have are with the State governments. They essentially tell us what their priority projects are and things happen at a political level and then projects get committed to, but a vast majority of those are with the State governments managing those projects. This government, or particularly the infrastructure investment division, deals a lot with the State governments and not so much private consortiums. That's not to say that we don't but, I think, not many of our projects are actually with private consortiums. (Participant 45)

> Commonwealth planner 2: Which means that we're both feeling our way, as in with the private-sector consortiums and ourselves, how to manage the process. (Participant 46)

> Commonwealth planner 1: To a large extent that's exactly right. And I think it's fair to say that the private consortiums are getting their head around, or getting used to the idea of, working directly with the Federal government as well. (Participant 45)

The Prospectus also restructured the way that proposals for passenger rail projects are prepared and assessed by governments. Typically, State and Territory governments prepare a business case to facilitate assessment of proposals for which Commonwealth funding is sought. By contrast, any business case developed under the Prospectus is prepared by the proponent under the supervision of Commonwealth government planners (Australian Government 2017b, 17). Novel 'value for money' criteria built into the Prospectus opened the planning process to private-sector influence by requiring Commonwealth planners to compare the cost of conventional procurement methods to the cost of alternative methods that used private finance.

Policymakers aimed to wean subsidiary government-levels off Commonwealth grants by encouraging proponents to present "an overall package of support, in addition to other funding, which may be provided by state or local governments, the private sector and the direct beneficiaries of the project" (Australian Government 2017c, 10). However, the decision to bypass State and Territory government planning processes and leverage opportunities for private finance appear to have made business case development and assessment more complex—and perhaps more problematic—than conventional methods. As Commonwealth planner 1 observed,

> We've undertaken this process and we've chosen three [proposals] that we think have the best merit based on what they provided at the time. Until we get that final business case . . . We actually don't know if there's any merit in these proposals at all, to be honest. Internally, we're going to have a fair idea because we're going to be working closely with proponents and we're going to see their business cases. We need to be mindful that more work will be required, in the business case sense, for many of these projects, beyond the initial 'strategic' business case. (Participant 45)

The Prospectus gave the Coalition a template for market-led high-speed rail planning that promoted competition among State and Territory governments and private firms for Commonwealth government funds and financial support. Policymakers "did not attach grant funding commitments for capital costs" because they wanted to "[encourage]

the market to bring forward projects with innovative funding solutions" (NFRA and IPFA 2019, 19). This strategy, which promoted competition between jurisdictions and sectors, connected to a fourth and final feature of the Prospectus that added an element of spatial competition to the planning process. Commonwealth policymakers allowed the applicants to choose from twenty-three "corridor opportunities" identified for investigation and potential investment (Australian Government 2017b, 10).

In contrast to East Coast HSR, which designated a single corridor connecting State and Territory capital cities along the eastern seaboard, the twenty-three potential corridors identified in the Prospectus (see Australian Government 2017b, 10) yield a series of hub-and-spoke structures that radiate out from each capital city. Geographic analysis of the InterCity Blueprint, which adopted a similar hub-and-spoke structure, suggest this spatial strategy has the potential to increase development pressures in non-metropolitan regions by expanding the spatial economy of the dominant metropolitan regions (see Chapter 6). It also found that a hub-and-spoke structure could increase competitive pressures between non-metropolitan regions if connectivity and accessibility improvements are distributed unevenly. The Prospectus supplied a planning framework to exploit these development dynamics by allowing applicants to select from the most commercially viable corridors that "[created] scope for implementation of value capture mechanisms" (NFRA and IPFA 2019, 19). According to the authors,

> The regional communities surrounding a city are closely integrated economically and socially with that city. New or extended rail lines can support the release of new land for housing or employment, either on the outskirts of the city or in areas experiencing urban renewal. (Australian Government 2017b, 4)

8.4.2. State government reforms

State governments replicated the Commonwealth reforms by introducing guidelines to govern the management and assessment of market-led proposals (MLPs). Also called 'unsolicited proposals', an MLP is a concept for a public infrastructure or service that is developed by a private firm and presented to government instead of being 'solicited' by government through a competitive tendering process. MLP guidelines were introduced by State governments across Australia in 2014 and 2015 with the objective to "deliver infrastructure more quickly than other forms of government procurement and access technology or innovation which would otherwise be unavailable" (Hider and Lloyd-

Morgan 2017, 2). The guidelines complemented the Commonwealth government's objective to increase the stock of private investment in public infrastructure by promoting integration between the public and private sector. The following analysis will focus on Victoria's MLP guideline because it applies to the Hume Region where CLARA proposed to build the first leg of an interstate high-speed rail network as well as two new cities (see CLARA 2017). Three features of the guideline could allow corporate actors to extend their influence over state spatial planning in Hume.

First, Victoria's MLP guideline centralised state planning functions by transferring the management of infrastructure proposals from line departments with expertise in spatial planning—the Department of Transport and Department of Environment, Land, Water and Planning—to the Department of Treasury and Finance (DTF), a central government department with no spatial planning remit. Under a conventional planning process, the line department responsible for developing an infrastructure proposal works with DTF to ensure that project costs and risks are effectively managed, and that any issues raised by independent reviewers are resolved (Victorian Government 2017a, 3). DTF closely follows planning to ensure "increased central oversight extends through various stages of investment development and implementation" but the line department is still responsible for managing the process (Victorian Government 2017c).

By contrast, under Victoria's MLP guideline, DTF works directly with the private proponent during the early planning stages and coordinates inputs from other government agencies and departments (Victorian Government 2015). The MLP guideline restructures the governance of infrastructure planning with the objective "to provide certainty of process to parties seeking to approach Government with new and innovative proposals" (Tim Pallas MP, Treasurer of Victoria, quoted in Victorian Government 2015a). The urban planning consequences of this governance reform are highlighted by the Victorian Auditor-General's Office (VAGO) in numerous reports that criticise DTF for consistently prioritizing the commercial and risk management objectives of projects over the delivery of stated social, economic and environmental objectives (VAGO 2015, 2016, 2019).

The second feature of Victoria's MLP guideline that grant private firms greater influence over infrastructure planning are 'uniqueness' provisions built into the assessment criteria. An MLP is deemed unique when a proponent's "exclusive access to, or control over, strategic assets are integral to the proposal or improve outcomes for government" (Victorian Government 2015, 4). Uniqueness can also be attributed to proposals that generate outcomes unlikely to be obtained through a competitive tendering processes, or within timeframes that meet the current needs of government (Victorian

Government 2015, 4). Uniqueness provisions built into the assessment criteria are intended to promote 'value-for-money' and 'innovation' in public infrastructure procurement; however, these objectives are pursued by giving preferential treatment to firms with a monopoly position over a particular market or key segment of a critical infrastructure network (Woodcock et al. 2017, 20-21). Adherence to these provisions could reduce the ability of the Victorian government to maximise the benefits of public infrastructure for users and the wider community if the private consortium has a strategic advantage at each stage of the procurement process. "It's an extreme case of bypassing competition," agued Marion Terrill (2017a, 11), Director of the Grattan Institute's Transport and Cities program, because "the government engages with a monopoly provider during as well as after the contract negotiation."

Third, Victoria's MLP guideline engenders forms of deep collaboration between the public and private sector that would not be possible under a conventional PPP arrangement. Under a conventional arrangement, large projects planned by the government are shaped by strategic planning processes—including community consultation—before going out to competitive tender. Under the guideline, the government's responsibility for planning is shared with or delegated to a private consortium, which can allow that consortium to bypass both the strategic planning process and competitive bidding process (Woodcock et al. 2017). The guideline does contain a schedule that lists "current areas of interest and priority areas for attracting market-led proposals" and references recent budget papers and the Premier's website as additional sources of information about government priorities (Victorian Government 2015, 35). However, directing private infrastructure firms to the policy imperatives communicated through these information outlets can open state planning to the political currents of election cycles because they do not reference current transport strategies or regional development policies.

It is possible at this point in the analysis to discern a set of governance practices through which market-led high-speed rail planning is enacted in Australia. Foremost is a practice of centralising bureaucratic control over infrastructure planning within the state planning apparatus: extending Commonwealth power over regional passenger rail (in the example of the Prospectus) and extending the influence of central government departments over urban spatial planning (in the example of Victoria's MLP guideline). Although a goal of market-led infrastructure planning is to devolve decision-making power to private firms, central governments play a crucial role in this process by modifying the institutions and procedures that govern the early planning stages.

Turnbull's decision to situate IPFA inside DPMC provides a salient example of this phenomenon, as does the Victorian government's decision to permit private infrastructure firms to bypass strategic processes using the MLP guideline. Governments also played a crucial role in cultivating forms of metagovernance that legitimised market-led high-speed rail planning. The parliamentary inquiry into LVC chaired by John Alexander provides a salient example of this because a great deal of the committee's work focused on transforming the rationalities and practices that govern passenger rail development.

8.5. Embedding the CLARA Plan into Hume

CLARA gave the Coalition a spatial template for market-led high-speed rail by proposing to build an interstate network and eight new cities using private finance obtained from global markets (Martin 2016c). It structured the CLARA Plan to take full advantage of government reforms that sought to increase private sector investment in public infrastructure. Nick Clearly, CEO of CLARA, intended to use Victoria's MLP guideline to present the project to government and facilitate planning of the first stage: a high-speed rail link connecting Melbourne to Greater Shepparton and the construction of two "smart cities" in Hume (Manning 2016, also see Wright 2016). Additionally, CLARA made a submission to the *Faster Rail Prospectus* and was successful in securing approximately $8 million from the Commonwealth government for business case development (CLARA 2017, 2018, Australian Government 2018b). While CLARA usefully exploited new government policies to promote private investment in public infrastructure, it is prudent to note the CLARA Plan is an extreme case of market-led high-speed rail planning. It foreshadows, in its purest form, the creation of a 'new private state' where urbanisation is governed entirely by the laws of private capital.

CLARA's origin story illuminates the process by which MLPs navigate the corridors of political power in Australia and emerge into the public domain as legitimate projects. The consortium is constituted by networks of non-state actors from the property and construction industry that not only have connections to domestic and international capital markets but also to Australian governments. According to one report, the CLARA Plan "began as a conversation on the side of the Hume Highway" between Nick Cleary and property developers and venture capitalists in early-2015 (Martin 2016c). This timeline coheres with the recollection of one Council officer from the Hume Region who recalled "[hearing] rumblings about CLARA, or people out at Tallygaroopna, for example, telling us that they'd had all these speculators" in 2015 and 2016 (Participant 13). Another media report claimed that "impetus [for the CLARA Plan] came from a

chance meeting with John Alexander . . . in 2015, where . . . Cleary told Alexander of his dream to link Sydney and Canberra by high-speed rail, via the Southern Highlands and Goulburn, all privately funded" (Manning 2016). It was apparently at the behest of John Alexander, who said to Cleary "Why stop there?" (Manning 2016), that CLARA morphed into an ambitious $200 billion plan to "rebalance the Australian settlement" (Burke and Young 2016). Eighteen months after discussing the concept with potential investors on the side of the Hume Highway, Nick Cleary secured legal control over forty-percent of the land for new city construction (The Age 2016) and meet with the Prime Minister, Malcolm Turnbull, and with representatives of the NSW and Victorian governments to seek their political support (see Martin 2016b).

The public gained its first insights into CLARA at a launch in July 2016 hosted by RMIT University, Melbourne. Dignitaries attending the event included Hon. Steve Bracks AC, a former Labor Premier of Victoria (1999-2008) and Chair of the powerful Construction and Building Union Superannuation fund, and Hon. Barry O'Farrell AO, a former Liberal Premier of NSW (2011-14) and Deputy Chair of the Australia-India Council for Trade (The Australian 2016). The Mayor of Greater Shepparton, Cr Dinny Adem, and heads of RMIT University also attended, joined by members of the CLARA consortium including representatives from General Electric, the Commonwealth Scientific and Industrial Research Organisation and SGS Economics & Planning (Mariel 2017). Members of CLARA's advisory board not in attendance include the CEO of the American Chamber of Commerce in Australia, a non-government organization that facilitates access to major US corporations (American Chamber of Commerce 2020), and Andrew Robb, who retired from Parliament in May 2016 to work as a lobbyist for companies investing in the Asia-Pacific region (Robb 2017). Cleary's own political connections and professional activities shed additional light on the interests and networks that underpinned CLARA. As Vice-chair of the NSW National Party and real estate agent with interests in agribusiness and regional development (The Australian 2016), Cleary is well-positioned to broker 'land deals' between corporate elites and property owners in the regions (see Martin 2016b).

The geographic analysis gave a sense for the radical nature of CLARA's vision by showing its potential to transform the settlement hierarchy of Australia's southeastern seaboard (see Chapter 6). This vision projected melancholic narratives about the decline of the Australian city that harked politically charged debates about population growth and overseas migration. "Australia has got a problem," Cleary declared to the Goulburn Chamber of Commerce in June 2017, "our population is growing by about fourteen

million between now and 2050 . . . about fourteen million have got to be accommodated at some point, and that's in the low projections according to the ABS" (Cleary 2017). Conjuring widespread concerns about the liveability of Melbourne and Sydney, Cleary went on to cite the housing affordability crisis, densification of established urban areas and worsening traffic congestion to justify the CLARA Plan (see Cleary 2017). At another public engagement, this time in Melbourne in May 2018, Cleary disparaged the Australian suburb, presumably to connect with his audience of architects and urban planners and to make the case for a new way of growing the Australian city.

> Far be it that we're trying to establish cities that are *commutervilles* or cities that are just ordinary suburbs or what we call *vampire suburbs* . . . we need to look to cities like Geelong, but also to new cities and new opportunities for Australia to change the cycle of urban sprawl. (Cleary 2018, emphasis added)

Cleary's narratives about the social and environmental perils of the suburbs build a case for high-speed rail development and the construction of new cities by delegitimising the efficacy of state spatial planning. Arguably, when Cleary (2018) criticised suburban development as "a model that is somewhat broken" he is not just arguing for a new way of planning the Australian city, but for a new way of governing urbanisation that is market-led. The CLARA Plan gives a spatial and institutional template for a new private state: a network of privately constructed cities connected to Melbourne and Sydney by a privately owned and operated high-speed rail network. It is prudent at this point of the analysis to reiterate that many experts in transport policy and urban and regional planning have raised legitimate concerns about the economic and planning fundamentals of the CLARA Plan (see Newman 2016, 10, Potter 2016, Terrill 2017b, 8, Terrill et al. 2020). Expert critiques notwithstanding, analysing the regulatory and legal strategies used by CLARA to embed their proposal into Hume illuminates the governance practices of market-led infrastructure planning.

One strategy used a novel form of LVC called 'value creation' that sought to concentrate the benefits of high-speed rail investment on CLARA's new cities. Conventional methods of LVC use the planning powers and fiscal resources of governments to control the development of strategic sites and attract private investment. Crucially, in conventional methods of LVC, a portion of the revenue generated by public infrastructure investment is returned to governments through various taxation mechanisms. By contrast, value creation attempts to bypass the planning and fiscal conduits of governments by allowing private consortiums to capture a greater portion of

the revenue generated by land rezoning and urban development. In another crucial point of difference, value creation concentrates the benefits of high-speed rail investment on new city sites to maximise the 'uplift' in property values, whereas conventional methods of LVC could, in principle, promote a more spatially distributed pattern of benefits by supporting the development of connective public transport infrastructures. These decisions are left to the private consortium under CLARA's value creation model.

CLARA gained political support for its plan from the Coalition, but the idea that governments would cede control over project planning and finance did not sit well with other government policymakers. CLARA presented its proposal to the Premier of Victoria, Hon. Daniel Andrews MP, in the first half of 2016 (see Corbett 2016), but when reporters contacted the Minister for Public Transport, Hon. Jacinta Allan MP, in March 2018, to ask if the Victorian government supported the proposal, a spokeswoman responded by saying "We're focused on real projects, so the answer is no" (spokeswoman quoted in Lucas 2018). CLARA not only caused tensions between government-levels but also within different faculties of the Commonwealth government. Infrastructure Australia (2016, 39) cautioned the Commonwealth about market-led procurement mechanisms like value creation because "perceived over-recovery [of value] may serve to retard development", "distort private investment in local housing or businesses" and possibly "drive that investment to other areas in Australia or overseas." Even John Alexander, a vocal supporter of CLARA and of LVC (see Cleary 2016, Johnston 2018, Lucas 2016), harboured reservations about value creation. Alexander envisaged a more sophisticated and layered approach to LVC that shared power between governments and private firms and engendered broad-based outcomes from infrastructure investment:

> The CLARA Plan, which has merit, is totally funded by value creation. They're actually taking options on land and they want to put the rail through their land and take that uplift entirely and fund the full cost of the high-speed rail out of that. I don't think that's correct, I think they should be partnering. It should be a big public-private partnership where any land that goes up in value beyond their land, because of the infrastructure, they should be able to capture some of that uplift to fund the infrastructure. (Participant 40)

Another strategy of market-led high-speed rail planning is the legal enclosure of peripheral non-urban spaces. CLARA's use of 'land options' to bring sites for the construction of new cities under its control gives the most obvious example of this practice (see Manning 2016, Martin 2016c, Wright 2016). Land options are contractual

agreements between a property owner and a property developer that give an exclusive right to the developer to purchase a property within a predetermined period and for a predetermined price. As an instrument of property speculation, land options can mitigate the financial risks associated with planning by allowing developers to delay the purchase of land until the necessary approvals are obtained from government authorities. Typically, developers use land option contracts to gain legal control over a single property or several consolidated properties prior to lodging an application to either rezone or build on the land. In the case of a national-scale infrastructure project, however, the land option contract gave CLARA the power to discuss its plan for high-speed rail and new city development with the Commonwealth by assuming control over large tracts of agricultural land along the proposed route. Before meeting with Malcolm Turnbull in January 2017 to present the plan, Cleary declared:

> We are the only company that has the land under our legal control to be able to implement this nation-building project, and solve so many of the states' and national issues—including congestion, housing affordability, overcrowding, and how to house the additional 14 million people by 2050. (Cleary quoted in Martin 2017).

Option contracts gave CLARA legal control over approximately one-half of the land required to construct its new cities (The Age 2016), but the consortium needed to gain control over the remaining land and high-speed rail corridor to realise its ambitious plan. CLARA designed the corridor alignment to facilitate the acquisition of private land by situating the new cities on large agricultural holdings that are easier to consolidate than fragmented land holdings situated near established urban areas (Manning 2016).

In principle, this strategy also maximised potential economic 'uplift' from the conversion of low-value agricultural land to high-value urban uses (Cleary 2017), but it was clear to many with knowledge of the project that governments would eventually need to step in and use powers of compulsory acquisition to secure the remaining land. Conscious of this prospect, the strategy to locate new cities at some distance to established urban areas was intended to reduce the potential for political conflict during the corridor planning process. Cleary (2017) argued it would "protect the historical nature and the sense of character that those existing towns have" by reducing the "burden of growth" from high-speed rail development. However, the strategy only produced cautious support for CLARA from Greater Shepparton Council (Akerman 2016) and outright rejection from Albury and Wodonga Councils (Morgan 2017) because of concerns that new cities

could compete with established cities for investment. Peter Harriott, CEO of the City of Greater Shepparton, remarked:

> CLARA is all about this value capture model that says 'I'm going to build a city of 150,000 or 200,000 population—maybe Geelong-size at max.—and I'm going to plonk that next door to Shepparton' . . . What does that mean to our community? Gosh. Lobbing a Geelong-sized city right here in the Goulburn Valley. That's got lots of consequences: social consequences, infrastructure consequences, not to mention the ability to service it. (Participant 10)

A related planning strategy sought to curry favour with governments by building the track infrastructure on pylons to mitigate the impacts of high-speed trains on farming communities. CLARA explored securing air rights over properties along the proposed route to avoid severing agricultural lands and to reduce the potential for physical conflicts with existing infrastructures. Geoff Kettle, the former Mayor of Goulburn and, now, Manager of Stakeholder Engagement for CLARA, opined that "above-ground, you've got no objections. You know, you've got a few pylons, and of course the electrical infrastructure runs to the top. Therefore, there's no effect from that" (Participant 51). Hon. Damian Drum MP, the federal member for Murray—an electorate encompassing most of the Greater Shepparton LGA—and a vocal advocate of the CLARA Plan (see Thomson 2018), confirmed "[this] railway will be built on twelve-metre high pillars the entire route—built up in the air" (Participant 11).

Nevertheless, Damian Drum harboured reservations about the political feasibility of the strategy: "You're going to have to find hundreds-and-thousands of farmers that all agree to have this train dissect their farms," he explained, "and that's going to be somewhat of a political nightmare" (Participant 11). Although an advocate of high-speed rail, the prospect of dealing with disgruntled farming communities—the core constituency of the National Party—weighed heavily on Drum's mind:

> Does government have to use a heavy hand to come over the top and say 'well, you own your land, but you don't own your airspace. You're going to be compensated for these pillars that are going to rip your farm in half' . . . I think the sheer magnitude of getting agreement from everybody along the route—that they're happy for this high-speed train to pass through their

> property—I'm not quite sure how that's going to be handled politically. (Participant 11)

The final strategy used by CLARA to embed its plan into Hume involved harnessing Victoria's MLP guideline to restructure the regional settlement hierarchy. The patterns of spatial growth envisaged by CLARA diverge radically from the current settlement structure enshrined in the *Victorian Regional Settlement Framework Plan* (Victorian Government 2017e) and *Hume Regional Growth Plan* (Hume RMF 2014). The findings of the geographic analysis indicate the CLARA Plan could restructure regional connectivity and patterns of spatial accessibility across Hume and, potentially, undermine the directions for settlement growth envisaged by state planners (see Chapter 6). "The whole crux of the new cities is that they will be employment centres of their own," Geoff Kettle explained, "[and] I know that Nick [Cleary] and others in CLARA have been in discussions with large companies overseas about coming in and actually owning the city, developing the city themselves and providing their own employment" (Participant 51). However, Council officers in Hume were circumspect about CLARA's vision to restructure the settlement hierarchy. As Peter Harriot explained:

> So, once we've left the initial, you know, it's a great idea in concept . . . and get down into the details. I guess one of the most recent pieces of conversation was to give [CLARA] a letter of support for their approach to the Federal government's business case. So, yes, it was a general sort of 'this is a positive thing.' However, it was an opportunity to state some of the initial issues that we have. Obviously, one is building a large city twenty kilometres out the road or wherever it's going to be. Is that the best town planning solution or is it best to grow an existing centre, like Shepparton, to a larger size? (Participant 10)

8.6. Summary

Despite receiving considerable media attention in 2016 and 2017 and a Commonwealth government grant in 2018, the CLARA Plan did not gain significant traction among regional actors in Hume because it was insufficiently integrated into the urban and institutional fabrics of the region. The decision to site new cities at some distance to existing regional cities raised numerous planning issues for regional actors—issues that ultimately stemmed from the commercial rationalities and political structures

that governed network planning. CLARA enjoyed the political support of the federal Coalition government and structured its plan to take full advantage of policy reforms to increase private investment in public infrastructure. Nevertheless, CLARA's ambitious vision to 'rebalance the Australian settlement' and 'open up the regions' for development met significant resistance from regional actors because it required the Victorian government and Local governments in Hume to cede control over strategic spatial planning. Herein lies the limits of market-led high-speed rail planning in regional Australia: government policies to promote private investment in passenger rail enticed CLARA to exploit peripheral non-urban spaces for development, but these spaces reduced opportunities for CLARA to embed its project into Hume.

The CLARA Plan is underpinned by an extreme form of commercial rationality that privileged the interests of domestic venture capitalists and multinational firms in network planning. Project planning was enacted through institutional structures that integrated the commercial and political imperatives of the Commonwealth government with the profit motives of private actors. State and non-state actors connected to CLARA cultivated a model of spatial governance called 'master planned development' that sought to create a frictionless space for the accumulation of private capital in non-metropolitan regions. Using a novel form of LVC called 'value creation', CLARA proposed to bring the space of the city under total private control by bundling transport infrastructure development with property development: a "real estate deal," in the words of John Alexander, that "would have a dramatic impact on the value of those lands" (Participant 40). The spatial strategies and governance structures developed by CLARA illuminated the form character of regional integration engendered by market-led high-speed rail planning. Although technically and politically implausible, the CLARA Plan supplies a counterpoint to East Coast HSR because their respective models of spatial governance—master planned development and integrated corridor development—seem diametrically opposed. These competing models of spatial governance are analysed further in the concluding chapter.

(9,900 words)

Chapter 9. InterCity Blueprint: new geographies of governance

Chapter 9 analyses the governance of InterCity Blueprint, a state-based proposal for high-speed rail launched by RFI in September 2016. The analysis foregrounds regional perspectives on project planning more strongly than the analyses of East Coast HSR (Chapter 7) and the CLARA Plan (Chapter 8) because InterCity is enmeshed in the politics of regional rail in Victoria. The opening sections explore the political rationalities and planning discourses that framed InterCity (RQ3). The analysis in these sections focus on a period in 2013 and 2014 when regional actors disrupted partisan alignments in Hume and influenced the planning and prioritisation of strategic rail projects. The following two sections trace the networks of state and non-state actors connected to InterCity to understand how project governance was enacted at the national and regional levels (RQ4). Finally, the closing sections open a discussion of the principal research question by exploring the relationship between InterCity and regional integration in Hume (RQ1).

9.1. Institutional and political barriers to regional development

The case description (Chapter 5) gave preliminary insights into the politics of rail infrastructure planning in Hume by illuminating the geographic and economic factors that hindered public investment in regional passenger rail. It found the development prospects of different communities in Victoria are mediated by government policies that target transport investments towards some regions and not others. Geographic and economic factors clearly influenced the uneven socioeconomic and environmental outcomes observed across Hume. However, a strong spatial bias in the distribution of recent government investments indicated that political factors are also at play. The field research confirmed these findings as many research participants offered their explanations for the poor condition of critical infrastructure in Hume including slow, infrequent and unreliable passenger rail. Susan Benedyka, Acting Chair of Hume RDA, put it succinctly by speaking to a "political overlay in the Northeast" that influenced levels of public investment across the region:

> we have not had a change of local member, in terms of the political colour spectrum, for a long, long time in all of the seats. There was a short time when Benalla was a Labor seat but that's it. So, there's nothing really in terms of a political push on the day or pain-points for the government of the day. (Participant 24)

Personal accounts of poor-quality passenger rail infrastructure, which featured so prominently in the field research, informed a kind of collective consciousness across Hume. These shared experiences engendered a sense of solidarity among the research participants, many of whom held leadership positions in government or prominent non-government organisations. The 'political overlay' cited by Benedyka was an apt descriptor; however, the overlay did not manifest as a homogenous condition because participants in different parts of the region identified different institutional and political factors that contributed the issue. Consequently, the research participants formulated different discourses to explain the barriers to regional development in each subregion.

9.1.1. Interstate competition in Albury-Wodonga

The analysis of urban development dynamics in the case description found that spatial growth in Albury-Wodonga is influenced by economic and political competition between NSW and Victoria (see Chapter 5). The field research supported this finding as many interviewees cited cross-border anomalies in response to questions about barriers to regional development. Research participants on both sides of the state border projected a sense of shared regional identity and purpose. This reflected the fact that Albury and Wodonga are integrated socially and economically with each other and with surrounding rural LGAs (BITRE 2018). This tension between regional identity and political geography was captured succinctly by Bill Tilley MLA, a State representative from Victoria, who remarked "that Albury is a Victorian town that just happens to be in New South Wales because . . . a lot of people do business in Melbourne" (Participant 20). Tilley's depiction of a cross-border community with shared social and economic interests concurred with the view of Local councillor 4 from Albury, NSW, who said:

> We're more strongly connected with Melbourne because of the distance. Most people from Albury, if they need professional services, medical services and that sort of thing will go to Melbourne. I think the public-sector are the only ones going to Sydney because, obviously, we're still in New South Wales. (Participant 27)

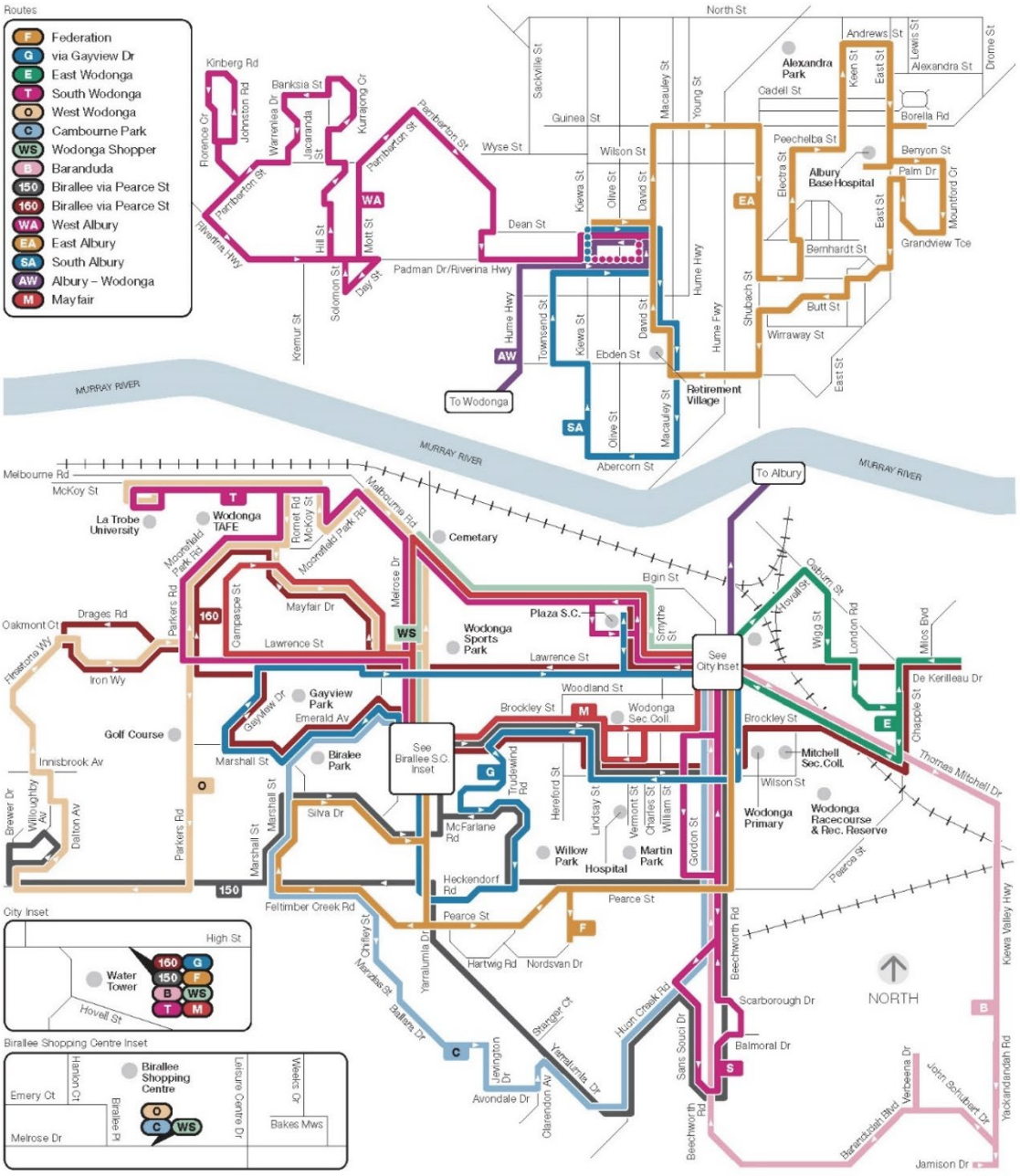
Tensions between the economic and political geographies that constitute 'Albury-Wodonga' manifest in the rationalities and practices that guide State government investments in transport infrastructure. Local councillor 4 supplied an example of this by highlighting the challenge of securing public investment in new off-ramps to connect the

Nexus industrial precinct to the Hume Highway. The off-ramps would improve accessibly between firms in the precinct and producers and consumers in Victoria, but the Councillor claimed the NSW Government "actually discount our proposals by up to forty percent because our infrastructure will be used by Victorians" (Participant 27). The Councillor used the local bus network as another example to highlight the implications of State government policies for public transport. Figure 46 maps the Albury-Wodonga bus network where Dyson Group, a private company, is contracted by Public Transport Victoria (PTV) to operate bus services in both cities. The number and density of routes in the map illustrate the uneven coverage of services in NSW and Victoria, with a strong bias towards Wodonga. Reflecting on the political and institutional dimensions of both examples, Local councillor 4 opined:

> We've had ongoing difficulties with the New South Wales government over funding. Similarly, Victorian funding is obviously not available to us because we're not a Victorian Council, but we certainly feel like part of a shared Victorian community with Wodonga. I think that on a lot of issues, cross-border communities are the only ones that notice the problems because there are things that are not perceived as problems in Sydney or in Melbourne. (Participant 27)

Many research participants from Albury-Wodonga highlighted the need for stronger alignment between governments on spatial planning and regional policy. In broad terms, participants identified the formal structures that govern interactions between Australian governments as the primary vector for governance reform. For example, Cr Anna Speedie, the Mayor of Wodonga, argued that "[if] we think about aligning, and local government should, when it's smart, align ourselves to state and federal policy," but, crucially, she added that "[we] have to because that's where funding comes from" (Participant 22). Insights like these suggest that regional actors in Albury-Wodonga view Commonwealth government leadership in planning as crucial to unlocking the development potential of the region. On the other hand, the comment highlights the paternalistic nature of relations between the Commonwealth and State governments and Local governments in regional areas. Nevertheless, when disclosing Council plans to develop an integrated transport strategy with Albury, Speedie reflected positively upon

Figure 46. Albury-Wodonga Bus Network, 2014



Source: PTV (2014) Albury-Wodonga bus network map.

legacy institutions like AWDC, which integrated the Commonwealth government and State and Local governments on both sides of the Murray River into one governing body.

> It's almost revisiting the Whitlam era . . . It's quite amazing because, if you look at that planning, Albury-Wodonga by now was supposed to be 350,000 people. So, the thinking was already there and that's why [AWDC] was set up. They took englobo land and became the developer and the planning authority and it had a great impact here, but it didn't quite go far enough because what happened was you lost impetus at the federal and state policy levels. (Participant 22)

9.1.2. Interregional competition in Greater Shepparton

Greater Shepparton supplies a counterpoint to the example of Albury-Wodonga because barriers to regional development identified by the research participants placed greater emphasis on the Victorian government. This resonated with a key finding of the case description: that development outcomes in the Goulburn Valley are strongly influenced by competition for public investment between Victoria's regional cities (see Chapter 5). Many research participants spoke at length about the politics of passenger rail investment when reflecting on the geographic and institutional factors that caused Shepparton to be excluded from the RFR program (2000-06). Figure 1 illustrates how Shepparton is situated just beyond a 'broad arc' drawn by State government planners to give direction to transport policies in regional Victoria. The arc extended approximately 150 km from the centre of Melbourne CBD to incorporate the regional cities of Ballarat, Bendigo, Geelong and Latrobe into an extended metropolitan field. Council officer 1 questioned the seemingly arbitrary measure of 150 km, which profoundly influenced regional transport policy in Victoria:

> we're classified as long-haul, so we're lumped in with Swan Hill, Warrnambool and Albury-Wodonga, that are clearly much further away from Melbourne than we would consider ourselves. So, that whole notion of long-haul versus short-haul has probably been the noose around our neck for a long time. (Interview 13)

Other research participants highlighted institutional factors that led to Shepparton's exclusion from RFR as well as government investment programs that aimed to accelerate development of the inner-ring regional cities (see Chapter 5). Cr Chris Hazelman OAM,

from the City of Greater Shepparton, recalled that counterparts from other regional cities "played us on a break" when lobbying the Commonwealth and Victorian governments for public investment (Participant 12). Hazelman's account of regional governance during the first decade of the twenty-first century indicates the capabilities of regional institutions in Greater Shepparton were underdeveloped compared to other regional cities in Victoria. His twenty-years of experience as a local councillor, community organiser and leader of local non-government organisations gives significant weight to his perspective on the efficacy of regional institutions. Hazelman recalled:

> I'd go to meetings in Ballarat or Bendigo and around the table they would have their political strategy worked out. It would be just second nature to them: 'we've got to brief our local member and we've got to brief the opposition because he might be the local member in a month's time'. (Participant 12)

Figure 47. Geographic extent of Regional Fast Rail, Victoria, 2000-06



Note: Table 7 lists data sources used in the regional and local maps.

Suzanna Sheed MP, the State member for Shepparton District, shared Hazelman's view that deficiencies in local institutions had contributed to a lack of public investment in the region. When asked to reflect on barriers to regional development, Sheed said "Well, how frank do I want to be? I think there's a lack of preparedness. I came to a community that had been so used to asking for stuff but never getting it, or maybe not asking because they were used to not getting it" (Participant 19). Sheed emphasised the influence of political factors over institutional factors, perhaps because of her role as a State MP. "The whole community knew we needed a new hospital. We also needed better rail services," Sheed said, when recalling her motivations to run for State parliament: "It wasn't like the light bulb just went on, but I was the first politician who said, 'this is what we need' . . . the community knew it and I think Local government knew it also" (Participant 19). Sam Birrell, CEO of the Committee for Greater Shepparton (C4GS), agreed with Sheed that political factors hindered regional development. Birrell also emphasised the absence of effective regional networks:

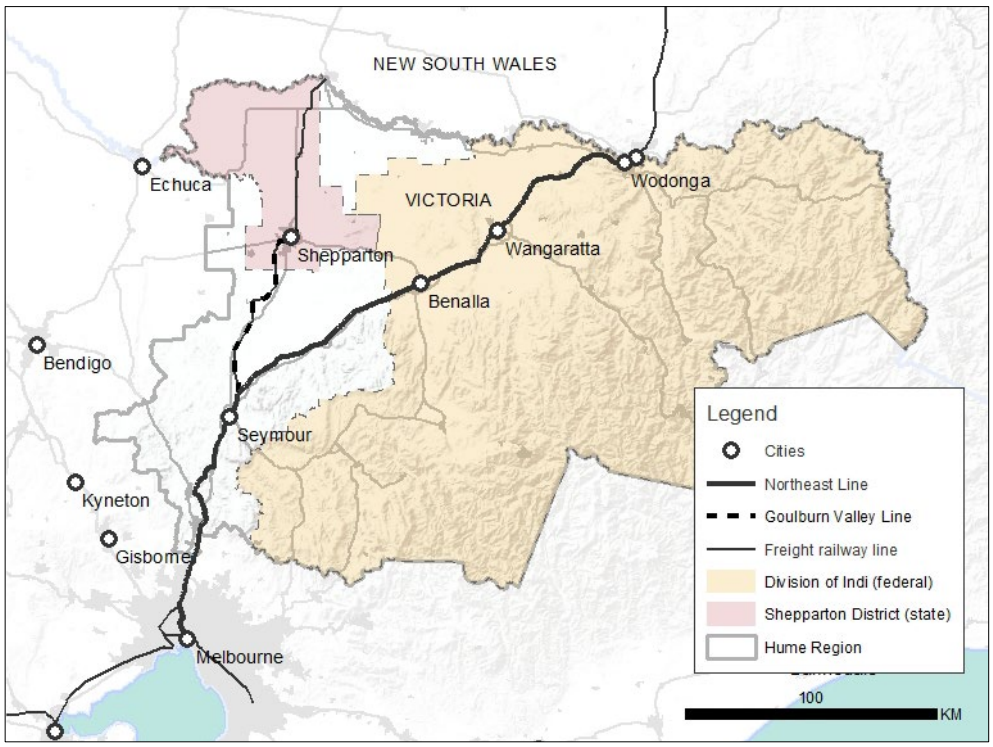
> But if you ask me, why has Shepparton floundered so long with rail? I don't know, it's possibly political. When higher-speed regional rail started in the early-2000s, we weren't a part of that conversation . . . I reckon it was possibly political, and I don't think that we, as a region, had an advocacy capacity whatsoever, and this has been identified. The formation of the Committee for Greater Shepparton is a result of this. But I don't remember any organized advocacy for the region: local government, the business community, no one was really doing anything. (Participant 18)

9.2. Political disruption and institutional transformation

Governments established Hume RMF and Hume RDA to address the problem of attracting public investment to the region (see Chapter 5), but regional actors began to question the efficacy of these institutions as Hume continued to be overlooked for public investment. The problem was particularly acute in Greater Shepparton where plans for major upgrades to the hospital and construction of the Goulburn Valley Highway Shepparton Bypass went unfunded for a decade or more. Meanwhile, the quality and reliability of passenger rail services continued to decline because of "inadequate infrastructure which has received little significant investment over a very long period" (John Hearsch Consulting 2017b, 3). Albury-Wodonga, on the other hand, experienced strong economic and employment growth owing to recent public investments in road and

freight rail infrastructure. However, the quality and reliability of passenger rail services declined because of "serious problems with the condition" of the Northeast Line (AEC Group 2017, ii). This was despite a major $285 million upgrade completed in 2008.

Figure 48. Federal district of Indi, 2013, and State district of Shepparton, 2014



Note: Table 7 lists data sources used in the regional and local maps.

The geography of discontent that formed around the passenger rail network had significant consequences for the conservative political parties that traditionally represent the interests of regional electors. Numerous research participants articulated a sense that the Liberal and National parties had 'lost touch' with local communities and were either unwilling or unable to fix the rail network. Notably, several participants who expressed concern about the dysfunctional state of regional politics also recounted their experiences of working for independent candidates in the 2013 and 2014 elections. The character of networks that formed around these campaigns differed because they targeted different electorates in Hume: one campaign centred on the federal seat of Indi, which encompasses Benalla, Wangaratta and Wodonga, while the other campaign centred on the state district of Shepparton, which encompasses parts of the Goulburn Valley (see Figure 48). Analysing both campaigns supplied insights into new geographies of governance that emerged in subsequent years to embed high-speed rail planning into Hume.

9.2.1. Grassroots groups in Albury-Wodonga

The campaign to elect Cathy McGowan to the federal seat of Indi is the better-known of the two campaigns because it became a template for independent candidates around Australia (see Curtin and Sheppard 2020, Dzur and Hendriks 2018). Two features of the campaign illuminate the new geographies of governance that emerged in Hume during this time. The first involves the character of networks that organised around Cathy McGowan. Regional actors coordinated through a grassroots organisation called Voices for Indi (V4I) that formed in 2012 with the objective "to become a voice for the people of Indi, and to act as a conduit to our federal representative" (V4I 2013c, 2). Recalling practices used by the Victorian Women's Trust and partners in the Purple Sage project (see Chapter 5), kitchen table conservations were the principle method of engagement used by V4I (2013c, 2) to meet with community members and "talk about what matters to them in the electoral process and for the upcoming federal election." Three reports published by V4I (2013b, a, c) articulate the region's most pressing development needs including public investment in regional passenger rail to improve access to economic opportunities and government services (V4I 2013c, 9).

The second aspect of McGowan's campaign that is relevant to the analysis is how the activities of V4I localised debates about rail infrastructure planning. East Coast HSR captured the imagination of the local community (see Jones 2013); however, as a long-term project, it could not address the immediate need to improve transport connectivity (see V4I 2013c, 9). McGowan promoted East Coast HSR (ABC News 2015) but she also supported Local governments and community groups lobbying the Commonwealth and Victorian governments to invest in regional passenger rail. This included working with the Border Rail Action Group (BRAG), "an unfunded cross-border community organisation dedicated to the improvement in public transport services and rail in particular" (BRAG 2020b). The late Bill Traill, then Chair of BRAG, recalled how the group grew out of a "town square" meeting in January 2014 that McGowan organised to hear community concerns about the Northeast line (Participant 31). BRAG was later credited by McGowan with "keeping rail on the agenda" in Indi, and members of the group including Traill joined her in meetings with the Premier of Victoria and V/Line and PTV representatives to advocate for investment in the Northeast line (see McGowan quoted in Parliament of Australia 2015c, 327).

Also notable is that Traill had extensive experience in community organising and lobbying governments on rail issues. Traill and colleagues established the Wodonga Save the Trains Group, the progenitor of BRAG, in 1993 "when the Kennett government came into power and threatened to close all regional rail lines" (Interview 31). Save the Trains

formed to protest a government proposal to privatise the Northeast line and reduce the frequency of passenger services; however, that campaign was largely confined to Wodonga. BRAG restructured the geography of rail advocacy in Hume by building a membership base that extended beyond Wodonga to incorporate other communities along the Northeast line including Albury in NSW (see BRAG 2020b). A diagram developed by BRAG illustrates the geography of discontent forged by problems with the Northeast line (see Figure 49). The region marked in yellow subverts the boundary of Hume because it is fixed on the Northeast line and transgresses the state border. Additionally, the claim "THEY'VE GOT IT!" and "WE DESERVE IT!" invokes spatial justice concerns by differentiating between the regions in Victoria serviced by RFR and regions that are not.

Figure 49. Geography of the Border Rail Action Group, 2015



Source: BRAG (2020a) Facebook homepage banner.

9.2.2. Corporatist formations in Greater Shepparton

The campaign to elect Suzanna Sheed to the Victorian Parliament in 2014 was equally energised by issues with regional passenger rail, but the networks that organised around her differed in character to the networks that organised around McGowan. An important factor was that Sheed did not have time to organise a sophisticated grassroots campaign because she announced her candidacy only twenty-nine days before the election (see Sheed 2015b, 221). Nevertheless, Sheed tapped into a sense of injustice felt by many in the community with the campaign slogan 'Stand up Shepparton, it's our turn!' "The hospital, the rail, the education, the art museum, all these things that we just keep

missing out on," Sheed exclaimed in the interview, adding "[look] at Bendigo. They're getting a $670 million hospital. They've got 20 trains a day. Look at Ballarat. Look at Geelong. Look at the money they're throwing at these marginal seats. And what are we getting? We're getting nothing" (Participant 19).

Sheed's campaign received "strong support" from volunteers, but it also benefited from extensive connections to the business community (see Sheed 2015b, 221) built up through decades of legal practice in Shepparton—Sheed owned a law firm that specialised in family law and farm and water transactions—and involvement in 'the deal' that secured public investment in the Goulburn Valley's irrigation network (see Chapter 5). As Sam Birrell recalled:

> the retiring member who was quite a popular person, Jeanette Powell, a minister in Baillieu-Napthine government, was retiring and her staffer was preselected as the National Party candidate. The Liberals elected not to run anyone. The community felt like they were being told "here's your new guy." With about five or six-weeks to go, Suzanna Sheed announced her candidacy and huge money and influence got behind her and she won—pretty narrowly, but she won . . . The rail is the big one and was a bit of an election turner. (Participant 18)

Suzanna Sheed became known as an advocate for regional rail in 2013 when the Shepparton News published her letter to the editor about the dire condition of passenger services to the region. Sam Birrell recalled that Sheed "was going to Melbourne for work, I think, and she wrote a letter in real-time, on the journey, saying how slow, and how hot, and how horrible, and how much time . . . I don't know how many other people saw it, but it spoke to me because it was well-written and because she was talking about how poor things were" (Participant 18). Sheed (2015a) used her influence after the 2014 State election to form All Aboard Shepparton, "a community led campaign borne out of a long-standing frustration at the inadequate train service provided to the region." Figure 50 documents a major campaign action by All Aboard Shepparton that involved residents taking the 6:15 am train to attend a rally on the steps of parliament house. The rally occurred just before a meeting between Sheed and the Minister for Public Transport, the Hon. Jacinta Allen MP, and residents wore pyjamas to highlight how early they must wake to catch the only morning train to Melbourne.

All Aboard Shepparton was the activist arm of an extended network of regional actors that spanned government levels and social sectors. Suzanna Sheed established the

campaign in collaboration with Shepparton RAILS (Residents Against Inadequate Locomotive Services), a local advocacy group, the City of Greater Shepparton and C4GS. The campaign exhibited grassroots characteristics owing to the involvement of Shepparton RAILS, but the prominent role played by C4GS in this and other activities surrounding regional rail differentiated the actor networks that formed around the Goulburn Valley line from those that formed around the Northeast line. C4GS is a non-government organisation that formed in 2013 with the objective to "[improve] the economic development and liveability of Greater Shepparton" (C4GS 2020a) and it is financed by multinational and national corporations in the area, local businesses and public institutions (C4GS 2020b). C4GS is of special interest to the research because of the way it worked with Local government and other non-state actors to promote the InterCity Blueprint and, more generally, public investment in regional passenger rail.

Figure 50. All Aboard Shepparton campaign action, 2015



Source: Suzanna Sheed MP (2015a) All Aboard Shepparton Facebook page banner.

C4GS formalised relations between corporate actors in Greater Shepparton and extended their power into the formal political sphere. The establishment of C4GS is generally credited to David Mckenzie, the inaugural Chair, and political support for its activities is said to be drawn from "a clique of local elites" with interests in industrial agriculture (Rose 2021, 2). Mckenzie, for example, is a director of Opteon, a property valuation firm with interests in the agriculture and water sectors. Moreover, like Sheed, Mckenzie was involved in 'the deal' that secured public investment in the Goulburn Valley irrigation network (see Foodbowl Unlimited 2007). As one member of C4GS opined, the organisation "had a lot of background involvement" in the Sheed campaign and its networks have organised to assert their interests in other elections by supporting the preselection of certain candidates (G4GS member quoted in Rose 2021, 70). These

insights into the influence of local actors on regional politics supplies important context to the analysis because they illuminate differences in the form and character of emergent regional institutions.

9.3. Developing the networked city-region

Advocacy by regional actors in 2013 and 2014 succeeded in prompting a newly elected Labor State government to upgrade Victoria's regional rail network (see PTV 2015). Jacinta Allen (2016) launched the Regional Network Development Plan (RNDP) in May 2016, declaring it a "blueprint for better regional public transport" that included funding to "deliver commuter-style services to Geelong, Bendigo, Ballarat, Seymour and Traralgon" and planning work to upgrade services to outlying regional cities. Labor used the RNDP to signal to regional communities that it would put an end to "ad hoc public transport improvements" of the previous Coalition government by developing "a more coordinated public transport network" in Victoria (Jacinta Allen MP 2016).

However, several regional actors interviewed for the research felt the RNDP reinforced geographic disparities built into the RFR network by an earlier Labor government. The initiatives planned for Hume were modest compared to those planned for the inner-ring regional cities because the RNDP included only one additional daily service to Shepparton and planning work to retire ageing rolling-stock on the Northeast line (Victorian Government 2016, 10-11). As Sam Birrell recalled:

> One big thing that held us back, in our opinion, is when the Regional Network Plan was developed. Basically, there were two classifications of regions: commuter and long-haul. A fairly arbitrary number of kilometres saw you classified as long-haul and we fell just outside of the commuter-class into the long-haul class. We felt that we were treated like Warrnambool or Bairnsdale, and we are nothing like those communities. (Participant 18)

RFI launched the InterCity Blueprint at RMIT University, Melbourne, in September 2016, just four months after Jacinta Allan launched the RNDP. InterCity captured the imaginations of regional actors in Hume because it proposed to improve the frequency and reliability of passenger services in the short-term and dramatically reduce travel-times to Melbourne in the long-term (see RFI 2016, Figure 13; Figure 14). Council officer 1, for example, spoke highly of InterCity because RFI "talked about Shepparton being in its own category" of service provision. "Shepparton isn't really long-haul," they argued,

"but it keeps getting lumped-in with the long-haul regional centres" (Participant 13). InterCity also garnered strong support from the business community because it was likely to be a more cost-effective than East Coast HSR or the CLARA Plan. As Sam Birrell remarked, when reflecting on the merits of different proposals to improve passenger rail to Greater Shepparton, "the more we think about it, the more we hear about it, our priority is probably our linkage with Melbourne—a high-speed linkage with Melbourne. Not necessarily 350 km/h but perhaps 160 km/h with all the roadblocks to that taken away" (Participant 18).

Planning discourses promulgated by RFI also resonated with research participants. The 'state of cities' concept, for example, was central to InterCity and cited by many research participants because it proposed to "[rebalance] a significant part of the State's population growth from Melbourne to regional Victoria" (RFI 2016, 69). The idea for a state of cities can be traced to Plan Melbourne, a metropolitan plan developed under the authority of a Coalition Victorian government. Plan Melbourne questioned the idea that Victoria should continue to develop as a 'city-state' where population growth is concentrated in metropolitan Melbourne (Gough 2014). In 2014, the Hon. Matthew Guy MP, Minister for Planning at that time, proclaimed in the foreword to Plan Melbourne that it "will be the first metropolitan planning strategy for Melbourne that genuinely integrates our regional and peri-urban areas to become places for large-scale population growth over time" (Victorian Government 2014b, iii). The state of cities concept featured prominently in the subtitle of the RFI report—how regional rail can re-balance population growth and create a "state of cities" in Victoria—and is frequently cited by the authors to communicate the anticipated urban and regional effects of InterCity:

> Investment in a polycentric regional rail network is essential to lead and enable a "State of Cities" and this will relieve growth pressure in Melbourne. Rail provides a powerful and effective tool for redirecting growth to regional centres. A much improved regional rail network can reduce pressure on Melbourne's outward growth, provide access to affordable housing and high quality jobs, and help distribute economic and social benefits across the State. (RFI 2016, 27)

The Coalition's state of cities concept differed to planning concepts that underpinned Labor's RNDP because it promoted a wider dispensation of public investment in transport infrastructure across Victoria's regions. RFI envisaged that InterCity will promote Melbourne's development as a 'networked city-region' by

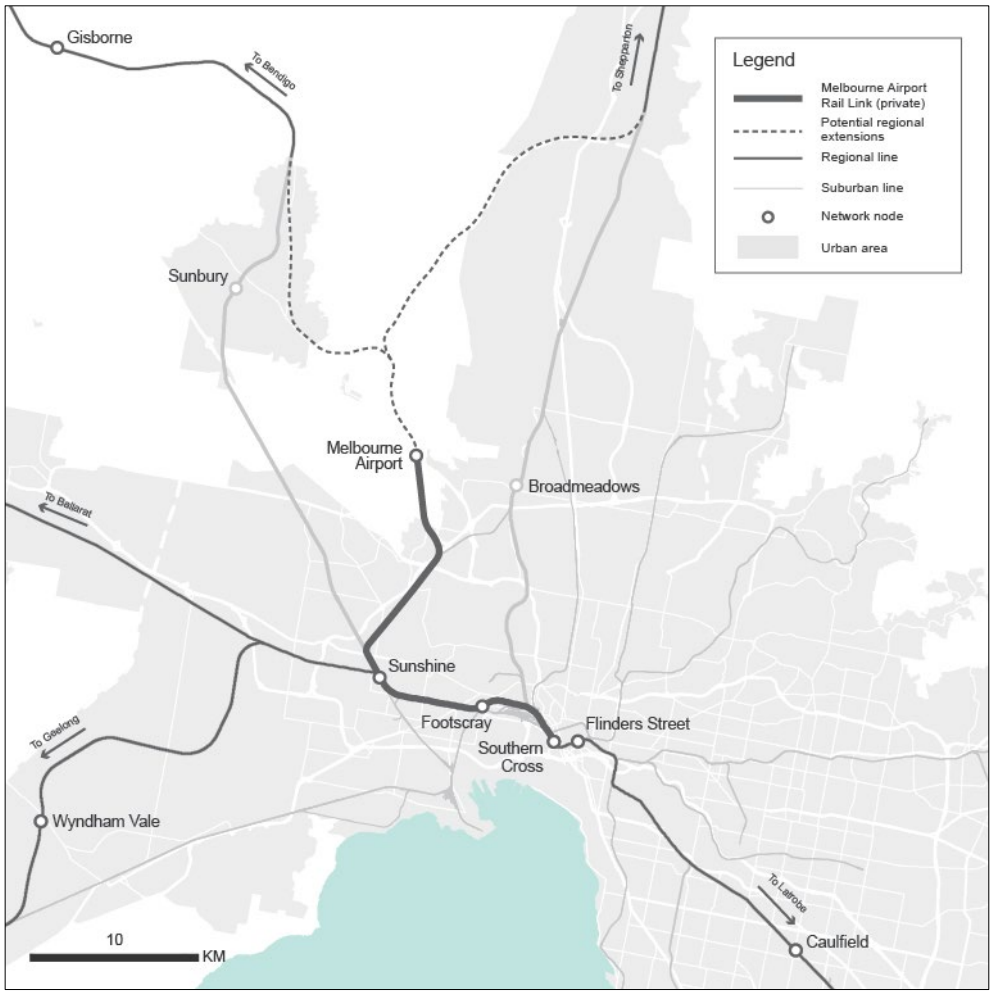
"[linking] regional centres with Melbourne, with each other through hubs, and with smaller towns through buses and other transport integrated with the rail network" (RFI 2016, 6). "Such a network," they added, "would be the physical embodiment of a State of Cities" (RFI 2016, 6). RFI (2016, 48) proposed to upgrade Victoria's regional network to "achieve a step-change improvement in journey times and reliability" and to develop "selected corridors" so that trains could operate at speeds of 200 km/h. More than speed, however, the feature of InterCity that appealed most to the research participants from Hume was "a new fast line from Southern Cross [Station] to Melbourne Airport shared between regional services, an Airport Shuttle and eventually HSR" (RFI 2016, 45). The airport line could increase the frequency and speed of regional passenger services by separating the regional network from the metropolitan network (see RFI 2016, 30) and enhance spatial accessibility by restructuring the regional rail network around strategic transport nodes in metropolitan Melbourne (see Figure 51).

The geographic analysis found that InterCity could restructure the spatial economy of Victoria by improving connectivity between metropolitan Melbourne and regional cities (see Chapter 6). The analysis in this chapter suggests that it could also restructure the institutional geographies that govern Victoria's railway network by increasing the influence of corporate actors on network development. Currently, Victoria's regional network is governed by state actors including the government agencies and departments that plan and regulate public transport and the public corporations that own track infrastructure and operate passenger services. Two aspects of InterCity portend a shift in the form and character of these structures. First, RFI propose that private firms build, own and operate new network segments such as the proposed airport rail link. As John Hearsch, the President of RFI, explained, governments would enter a PPP that takes one of two forms: the "government might say look, you fund the whole thing, or most of it, and we'll give you an availability payment over 30-years or something" or an "infrastructure owner or an infrastructure provider charges an access fee to the train operators who use it" (Participant 3). These arrangements resemble those that govern Melbourne's road network, where key network segments are owned and operated by private consortiums who charge tolls to road users. The salient difference between a PPP road project and InterCity is that a private consortium would own the line infrastructure as well as the strategic sites that infrastructure connects. As Hearsch explained:

> private-sector interests control both ends of the corridor and they're really the same people, to a large extent. So, existing private-sector arrangements are in

place for a 30-year concession at Southern Cross [Station] and some of the same players are part-owners at Melbourne Airport. They obviously join up the dots. They see benefits there in terms of attracting more throughput. (Participant 3)

Figure 51. Structure of the private MARL



Note: Table 7 lists data sources used in the regional and local maps.

Another feature of InterCity that could restructure rail network governance is the proposal to implement an 'open access regime'. Victoria's rail network currently operates under an open access regime, but the regime is only notionally applied to passenger rail because train operators exercise a monopoly over their respective modes and markets: suburban passenger services and freight services are concessioned to separate private firms and regional passenger services are provided by V/Line, a state-owned corporation. By contrast, InterCity could allow different firms to operate passenger services on the proposed airport rail link. "[It's] almost certain that the private-sector will have significant involvement in the bit between the city and the airport," John Hearsch opined, "[the] rest will probably be traditional government infrastructure, but even there it'll be notionally

an open-access regime" (Participant 3). Instead of the current arrangements where regional services are provided by a single public corporation, effecting an open access regime could allow different operators—public and private—to compete in different travel markets including regional passenger services, high-speed commuter services and interstate high-speed rail.

Finally, InterCity is underpinned by hybrid institutional structures that seek to integrate the competing objectives of the state and powerful non-state actors. RFI envision a strong role for governments in network planning, arguing the Victorian government "must take leadership in addressing strategic policy gaps in relation to population growth, planning policy, integrated transport planning and rail strategy and governance" (RFI 2016, 69). Additionally, they argue "the need for clear and exclusive Ministerial responsibility for public transport and rail freight" in order to "[overcome] the current fragmented institutional arrangements under which there are an excessive number of public agencies involved in public transport management" (RFI 2016, 71). These reforms intend to reduce "strategic and regulatory uncertainty" associated with state planning (RFI 2016, 71). They would also streamline the machinery of government to induce "new and innovative funding sources," "significant private sector involvement" and "options for value capture" (RFI 2016, 73). RFI do not name a specific structure to govern the procurement of InterCity. However, as John Hearsch explained, the default procurement model for the airport link is a market-led proposal:

> If the governments are too slow in coming to a view about what the project should look like, then they're likely to get one or more unsolicited proposals. On the other hand, if they do their homework and do thorough study and agree that something like this is the way this project should move forward then they can go to the market and invite proposals, which is a better way of doing it. (Participant 3)

InterCity could therefore be construed as a subtler form of market-led high-speed rail planning. Instead of constructing a dedicated interstate network to develop greenfield sites it would gradually restructure the existing public network to 'join up the dots' owned by corporate actors. RFI envisaged that corporate actors would not be directly involved in InterCity until the construction of high-speed rail infrastructure along selected corridors in 2030 (RFI 2016, 43; 73); however, an opportunity to deliver a key element of the blueprint emerged in April 2017 when the Commonwealth announced its intention to construct the Melbourne Airport Rail Link (MARL). The Victorian government was

initially hesitant to agree, citing a need to focus on other infrastructure priorities (Carey 2017); nevertheless, in July 2017, when the Commonwealth offered $5 billion to construct the MARL, the Victorian government promptly matched its contribution (ABC News 2018). Notably, when announcing the government partnership, the Premier of Victoria, Hon. Daniel Andrews MP (2017c), acknowledged "significant market interest" in the MARL and committed to "look at opportunities to save money and deliver it sooner through private sector involvement—including value capture and creation initiatives, and potential private sector proposals."

The analysis will now turn to explore the relationship between RFI and regional actors in Hume before returning to examine the interactions between national actors involved in the MARL. The purpose of shifting the scale of analysis at this point in time is to maintain focus on the new geographies of governance that emerged to embed InterCity into Hume. RFI worked independently to promote InterCity through public events and media engagements, but John Hearsch and colleagues also worked with state and non-state actors to advance their blueprint. RFI met Jacinta Allan in March 2017 to "brief" the Victorian government about InterCity (Carey 2017) and Hearsch confirmed in November 2017 that he was "involved in work now on the Melbourne airport on railway issues" (Participant 3). Crucially, RFI worked also with regional actors in Hume, supplying a link between the state and national corporate actors and regional institutions.

9.4. Embedding the InterCity Blueprint into Hume

RFI is led by a small group of transport experts and planning professionals that "advocate sustainable rail solutions for public transport and freight problems" (RFI 2022). John Hearsch, for example, has extensive knowledge of Victoria's railways and connections to the transport bureaucracy from his time working in the Victorian Railways and State Transport Authority. RFI formed in 2014 but it came to prominence in 2016 after publication of the InterCity Blueprint and public advocacy around the MARL. While members of RFI have used their professional networks to gain access to Commonwealth and State government policymakers, the focus of the analysis in this section is the organisation's connections to Local governments and regional actors in Hume. Hearsch was commissioned by numerous Local governments in Victoria, including the City of Greater Shepparton, to study the feasibility of upgrades to the Victorian rail network (John Hearsch Consulting 2016, 2017a, b). This work allowed Hearsch and RFI colleagues to influence the planning goals of regional actors:

> We think that Local governments have got a very important role to play. What we've been doing with our InterCity strategy is encouraging Local governments to combine their resources along a corridor so that they take a holistic view and that's been very successful. We've now got eight or nine groups of Councils around the state to come together to look at their rail corridors. What we've said to them is that the state will do its own planning, but if you don't get in here and develop your own strategies . . . those strategies have to be based on knowledge and understanding of what's possible and what's not possible and how it integrates more widely. (Participant 3)

RFI also worked with non-state actors to embed the InterCity Blueprint into Hume. "Apart from local government," John Hearsch explained, "the other people who've really gotten onto this, in such cases, are the so-called 'Committees for'. You've got a Committee for Gippsland, a Committee for Ballarat, a Committee for Geelong and we spoke to most of them individually as well as all of them collectively" (Participant 3). Sam Birrell's strong support for InterCity confirmed this view. Hearsch and RFI Secretary, Bill Russell, meet with Birrell in September 2016 (see Figure 52) and presented to C4GS members at a formal end-of-year function in November 2016 (C4GS 2016a, 15). C4GS became a vocal supporter of InterCity by joining other 'Committees for' to promote the market-led version of MARL (see Shepparton News 2020a) and commissioning research to build the case for public investment in regional rail (see EMS Consulting 2018). Advocacy work connected to this research was notable for its openly critical position on government transport policies. The research found that "Victorian regional centres have benefited from substantial investment in rail services over the 15 years from 2007 to 2017" but, during that time, "there has been no investment to materially improve rail services to Shepparton" (EMS Consulting 2018, 66). Rob Priestly, then Chair of C4GS (2018), used the study findings to urge "both sides of politics to get serious about rail funding in Shepparton. Rail funding has been below par and both sides of politics need to look hard at fixing this problem for our region."

The field research found the relationship between RFI and regional actors in Albury-Wodonga was more tenuous compared to the example of Greater Shepparton. As John Hearsch noted, InterCity was especially popular among the inner-ring regional cities where 'Committees for' had formed. Greater Shepparton is a notable outlier among this cohort of regional cities because it had a 'Committee for' but was regarded by state

planners as an outlying regional city.[9] Another regional institution that RFI enlisted to embed InterCity into Hume was Regional Cities Victoria (RCV), an alliance of the ten most populous cities in regional Victoria (see Chapter 5). If InterCity is the "physical embodiment of the 'state of cities' concept," as RFI (2016, 6; 22; 28) contend, then RCV embodies the concept politically because it does not discriminate between the inner-ring and outlying regional cities. In late-2017, RCV gave RFI a platform to present InterCity to the Mayors and CEOs of Victoria's ten regional cities. Like the 'Committees for', RCV also came out in strong support for the private airport rail link (RCV 2017a, 2018). Nevertheless, RFI's high-speed rail proposal did not gain the same amount of traction in Wangaratta and Wodonga than it did in Greater Shepparton.

Figure 52. Bill Russell, Sam Birrell and John Hearsch at Shepparton Station



Source: C4GS (2016b) John Hearsch says Shepparton is 'today's poor rail relation'.

One factor that could have contributed to the differing levels of interest in InterCity is the geographic distribution of its development benefits. The short-term investment program proposed by RFI would be likely to yield benefits for communities across Hume by increasing the frequency, reliability and comfort of passenger services. However, the benefits of the long-term investment program were targeted towards Melbourne's peri-urban zone and the inner-ring regional cities (see Chapter 6). InterCity could also benefit Greater Shepparton more than Albury-Wodonga because of its relative proximity to metropolitan Melbourne and Melbourne airport. Geographic factors can therefore help to explain the strong support for InterCity in Greater Shepparton. In a corollary fashion, the strong support for East Coast HSR in Albury-Wodonga can be explained by its potential to breakdown geographic barriers to economic development in outlying regions.

Another factor that could have contributed to varying levels of interest in InterCity is the emergence of differentiated institutional forms across the Hume Region. A shared planning goal motivated the lobbying work of regional actors—to fix critical issues with regional passenger rail—but actors in Albury-Wodonga and Greater Shepparton pursued their goals by organising in different ways. Actor networks that organised around the Goulburn Valley line were corporatist in character owing to the prominent role played by C4GS. Community initiatives such as Shepparton RAILS and All Aboard Shepparton played a role in months following the 2014 Victorian election, but the former organisation's activities appeared to subside with time and the latter community campaign was managed by Suzanna Sheed's office. By contrast, actor networks that organised around the Northeast line were more grassroots in character owing to a long history of community activism on rail issues in the area and to the strong role of V4I in the Cathy McGowan campaign.

These findings reiterate the interplay between geographic, institutional and political factors in rail infrastructure planning in Hume. Bill Traill confirmed the grassroots nature of advocacy networks in Indi when he noted that BRAG "haven't established much of a relationship at all with business groups" (Participant 31). Instead, as one Councillor explained, BRAG engaged in "collaborative lobbying" where Council Mayors and CEOs agreed to support community-led campaigns and sign letters to Commonwealth and State governments, while Bill Traill and colleagues agreed to attend public forums organised by Councils (Participant 21). The Councillor added with delight that BRAG was "known to stir the pot" and were "very effective" at reminding governments that "there is an active community there, which is what puts the political pressure on" (Participant 21). Indeed, governments "received substantial negative media coverage" in state and regional newspapers after critical flaws emerged in the Northeast line; much of it attributable to Traill and fellow members of BRAG (see AEC Group 2017, 63).

Discourses framing the case for public investment in the Northeast line shifted when Local governments assumed a more prominent role in the advocacy effort. In mid-2016, Albury, Benalla, Wangaratta and Wodonga jointly commissioned a study into the Northeast line to "[identify] the latent demand for train services within the community" and "[quantify] the potential social and economic benefits derived from improvements to services and increased patronage" (AEC Group 2017, 2). Like the City of Greater Shepparton, the Councils stepped outside of their conventional administrative role to undertake planning for a strategic rail project. Cr Anna Speedie, the Mayor of Wodonga, explained that Council "[needed] to take a more active role" in the Northeast line

(Participant 22). She said, “it isn't a Local government issue—it's a State issue and let's be clear about that—[but] we couldn’t sit back any longer” (Participant 22). Nevertheless, the Councils deliberately framed the study to shift discourses about the Northeast line away from negative perceptions of government failure towards the positive outcomes of public investment in the region. “[Don’t] keep talking about mudholes and don't keep talking about problems,” Speedie exclaimed when outlining Councils’ approach to the study, “what are we missing out on by not having a consistent, on-time, modern and efficient rail service?” Anna Speedie also inclined that Councils highlighted the positives of public investment to depoliticise current issues with the Northeast line:

> [Councils] came together and said, okay, there's an action group who are focusing on the negatives, but how do we change that and look towards solutions? I don't care who's in government. I don't care whether it's at State or Federal level. How do we start talking to them with a collective voice to say “here's what's occurring in our community and we need to fix it. This has been going on for seven to nine years—let's fix it!” (Participant 22)

The purpose of presenting Anna Speedie’s critical and somewhat personal perspective on the Hume Corridor Study is not to foreground rifts between regional actors in Albury-Wodonga; rather, it is to highlight that Local governments assumed an entrepreneurial posture when prosecuting their case for public investment to the Commonwealth and Victorian governments. The relatively open and horizontal structure of networks that formed around the Northeast line also shifted when Local governments assumed “a more active role” (Participant 22). Councils commissioned the Hume Corridor Study “in association” with BRAG (AEC Group 2017, 1), but as Bill Traill disclosed in the interview, “we we're really excluded” because the study became “a monolithic structure, which it was never intended to be” (Participant 31). Nevertheless, the network formed by Local governments mapped onto the ‘geography of discontent’ that BRAG cultivated through considerable advocacy work. Working with Cathy McGowan, Trail and colleagues subverted the structures of state planning in Hume to forge new geographies of governance. With Local governments, they influenced the planning and prioritisation of strategic rail projects in Hume. As Speedie recalled:

> Mayor Mack and I took that to Canberra and talked with Minister [Darren] Chester—a fantastic relationship between Chester and Jacinta Allen—and we got $100 million to help fix our line. Working with [Michael] McCormack

> when he became Minister for Infrastructure at the federal level and we got the extra $135 million. Now that took collaboration. That wasn't just this group, that was our local federal member, too. (Participant 22)

9.5. The realpolitik of high-speed rail planning

The effectiveness of regional actors between 2014 and 2017 is evidenced by a dramatic turn in regional transport policy in subsequent years. Although high-speed rail did not come to fruition, the actors did manage attract significant public investments in regional passenger rail. As Anna Speedie noted, governments invested $235 million in track upgrades to enable faster and more frequent services on the Northeast line: the Commonwealth committed $100 million in May 2017 (Australian Government 2017c, 11) and increased the amount by $135 million in March 2018 when it was found that $100 million "was not enough to upgrade the track to run new modern trains" (Australian Government and Victorian Government 2018). Meanwhile, in Greater Shepparton, numerous public projects received funding including plans to upgrade to the Goulburn Valley line. The Victorian government committed $43.5 million in May 2017 (Premier of Victoria 2017a) and a further $313 million in May 2018 to upgrade track infrastructure and rolling stock (Victorian Government 2018).[10] As Suzanna Sheed explained, the investments in the Goulburn Valley line accompanied government commitments to many other public projects:

> In the last three or four-years, we've seen a fair bit of development because of government investment: the courthouse was just finished, the redevelopment of the first stage of Goulburn Valley Health is underway, the new Shepparton Art Museum is about to be built on the edge of the lake—that's about a $40 million project. The hospital is about a $170 million project. The courthouse was $70 million. The regional rail, with the money from last year and this year, will be close to $360 million. (Participant 19)

The regional analysis connected the emergence of new actor networks in Hume to a period of political disruption in 2013 and 2014 that precipitated the rise of the regional independent MPs. As significant as these events were for regional politics, the success of regional actors must be understood in the context of the realpolitik of rail infrastructure planning in Victoria. Even though it did not progress to the implementation stage, the example of InterCity supplies valuable insights into the political machinations of

passenger rail investment in Australia because it elevated tensions between actors from different governments, sectors and regional geographies. RFI sought to resolve these tensions by integrating the objectives of the state and powerful non-state actors through the physical and institutional design of InterCity. However, the realpolitik of rail infrastructure planning—animated by intense partisan struggles within and between government levels—unravelled the blueprint into two geographically and institutionally discrete projects: the Regional Rail Revival (RRR) and a publicly-owned MARL.

The Victorian government announced the RRR program in April 2017, a $1.45 billion investment in track infrastructure and rolling stock across the entire regional network (Premier of Victoria 2017d). The program targeted public investment towards the inner-ring regional cities of Ballarat, Bendigo, Geelong and Latrobe by committing funds to numerous projects earmarked in the RNDP (see ABC News 2017a, Victorian Government 2016). However, the Victorian government expanded the RRR in subsequent years by incorporating significant upgrades to the Goulburn Valley and Northeast lines (see Victorian Government 2023, c.f. RFI 2016). This was in part due to the planning and advocacy work of John Hearsch and RFI colleagues and the lobbying efforts of regional actors. However, expansion of the RRR program involved a series of complex political transactions between different government levels that illuminate the institutional dimensions of regional integration in Hume.

From inception, RRR was entangled in a dispute between the Commonwealth and the Victorian government that had significant implications for Victoria's regional rail network. At stake was $1.45 billion the Victorian government claimed that it was owed from an asset recycling scheme set up by the Commonwealth to incentivise the privatisation of public infrastructure (ABC News 2017a). When Victoria 'sold' the Port of Melbourne for $9.7 billion in September 2016, it signalled an intention to claim $1.45 billion from the scheme, but the Commonwealth offered only $977.5 million because Victoria did not formalise its participation (Durkin et al. 2016). At the same time, the Commonwealth was negotiating with Victoria to use the Northeast line for its signature Inland Rail project—a $10 billion interstate freight 'super-highway' connecting Brisbane and Melbourne (see Chapter 8). The Victorians structured the negotiation to "strong-arm" the Commonwealth into paying for RRR (AAP 2018) by making its demands for full payment a condition of participation in the Inland Rail project (see Australian Government and Victorian Government 2018). The Commonwealth released the $1.45 billion for RRR in May 2018 and increased its contribution to the Northeast line upgrade

by $135 million when the Victorian government signed up to Inland Rail (Premier of Victoria 2017b).

Partisan dynamics were also at play in negotiations surrounding the Goulburn Valley line. Suzanna Sheed's victory in the 2014 State election gave the incoming Labor government an opportunity to marginalise their political opponents in Victoria by foregrounding the role of a regional independent MP in the negotiation process. The Commonwealth government had given the Victorian government $10 million in May 2017 to commence planning work (Australian Government 2017c, 11), but the Victorian's assumed a more prominent role in planning over the following weeks and months. Jacinta Allan frequently appeared with Sheed when announcing plans and funding commitments for the Goulburn Valley line. In return, Sheed promoted RRR and other State government projects in the area (see All Aboard Shepparton 2020). Notably, the local federal member, Damian Drum, a National Party MP, was conspicuously absent from Victorian government communications and public announcements during this time. The Victorian Labor government (2017b, 9, 2018, 2) funded much of the capital works and rolling stock upgrades, but not before extracting political capital from the project by pledging to outspend the Coalition. As Sam Birrell explained:

> So, Suzanna Sheed starts negotiating with the new Labor government, and we got $43.5 million in the 2017 [State] budget, which we thought was great, however, it still paled in significance compared to what the other regional centres got . . . The [Coalition] announced, I think, $600 million on rolling-stock for the whole of Victoria, and then they come up and announced $77 million for track upgrades to deliver eight services per day. There was much fanfare, you know, "we're the only group interested in this," but that was two-weeks before the [2018] State budget. Then the Labor Party came out and said, "you know, $77 million is nowhere near enough to do what's required," and they announced $313 million for the Shepparton line in the State budget. (Participant 18)

Partisan tensions that animated RRR intersected with tensions between the public and private sectors when corporate actors organised around the MARL in 2017. For a brief period in April and May 2017, the MARL was entangled in negotiations for RRR when the Commonwealth urged Victoria to use funds from the asset recycling scheme to pay for the MARL (ABC News 2017b). Tensions eased, however, when the focus of the negotiations shifted to RRR and Inland Rail and the Victorian government investigated

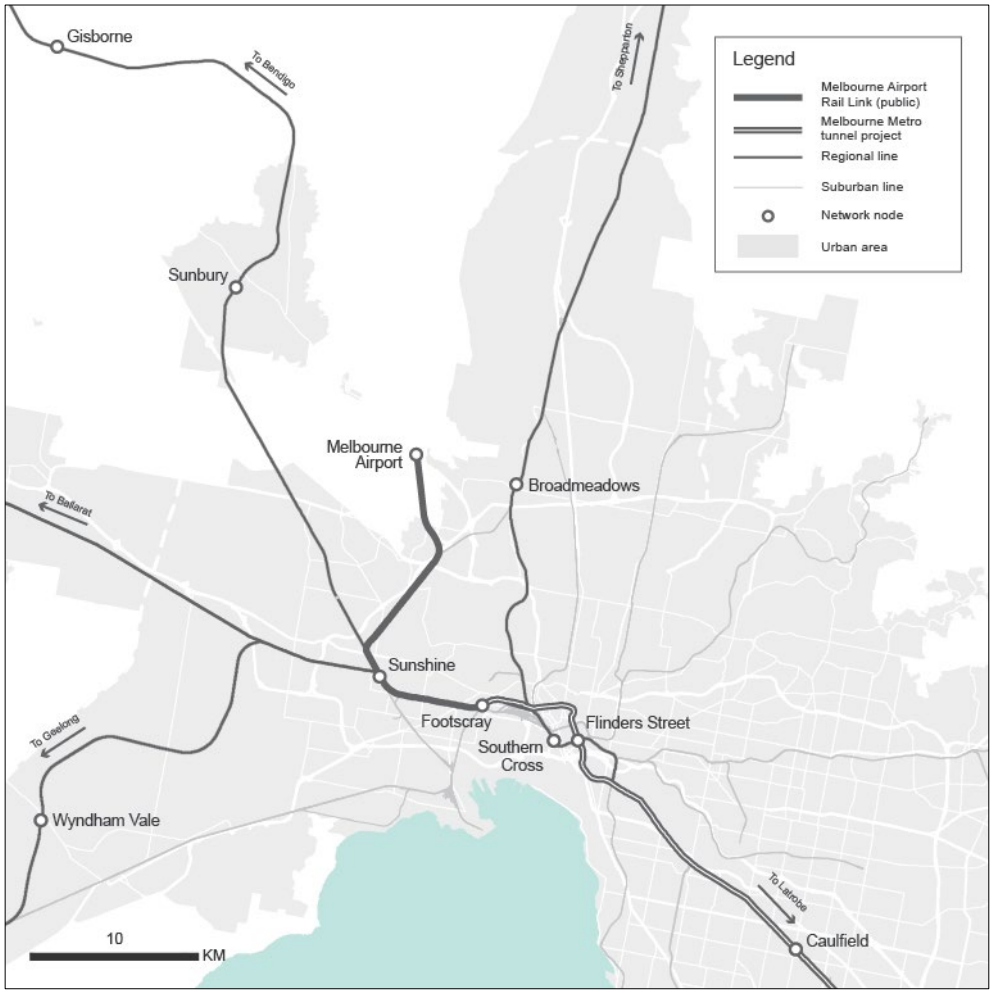
options to deliver the MARL using private finance. As noted earlier, Premier Daniel Andrews registered a strong interest in partnering with the private-sector when planning for the MARL commenced in April 2017 (Premier of Victoria 2017c). Reports in November 2017 confirmed that IFM Investors—the institutional investor with a stake in both Melbourne Airport and Southern Cross Station—"[wanted] to partner with the Victorian government to build the rail link" (Lucas 2017). As 2017 ended it appeared the InterCity Blueprint could come to fruition ahead of RFI's timeline.

IFM Investors submitted a MLP in September 2018 to build, own and operate the MARL for the Commonwealth and Victorian governments. However, the proposal did not proceed to the implementation phase following a public struggle between the superfund and the Victorian government that played out in the media. The MLP was structured as a three-way partnership where IFM Investors matched each government's $5 billion capital contribution (AirRail Melbourne 2018) in return for a concession to levy access fees over 40-years (Jacks 2019). The bid mirrored the InterCity Blueprint by proposing to connect the CBD to the airport via Sunshine, with express shuttle services to the airport and options to connect to regional cities in northcentral and northeastern Victoria. As planning for the MARL progressed, however, the State government began exploring alternative strategies to integrate the airport into the Victorian rail network (Jacks 2020d). Additionally, reports emerged that Victoria's appetite for private-sector involvement in the MARL had waned following a series of contentious cost overruns and high-profile legal disputes on other transport PPPs (Duke 2020).

Struggles between the Victorian government and national corporate actors over the MARL were connected to wider struggles between the government and actors in Hume over development of the regional rail network. When reports first emerged in early-2020 that Victoria was shifting its position on the MARL, IFM Investors offered a $2 billion "cash sweetener" to government to accept the MLP (Jacks 2020b) and tapped three former State Premiers to publicly declare their support for the proposal (see Jacks 2020c). Additionally, RFI worked with Local governments and 'Committees for' along the route to lobby State government to accept the IFM bid (see Jacks 2020a, RFI 2020a, b, Shepparton News 2020a, b). Nevertheless, the bid was effectively rejected in November 2020 when the Commonwealth and Victorian governments announced the MARL would be constructed as a public project (ABC News 2020, also see Victorian Government 2022). Instead of connecting the airport to Southern Cross Station, the Victorian government elected to connect the airport to the CBD and southeastern suburbs of Melbourne via a high-capacity metro-line that was already under construction (ABC

News 2020). The government's plan instead connected the regional network to the MARL at Sunshine (see Figure 53) while keeping full government control over the track infrastructure and train operations. RRR improved regional connectivity for communities in Hume, but it did not improve connectivity to the airport because the Northeast line bypasses Sunshine and runs directly to the city.

Figure 53. Structure of the public MARL



Note: Table 7 lists data sources used in the regional and local maps.

9.6. Summary

The planning and governance strategies developed by RFI—with a privately-owned MARL at their core—tested the institutional and political limits of rail infrastructure governance in Victoria. Ultimately, the government did not accept the MLP by IFM Investors because it "would prefer to have greater control" over delivery of the MARL—a key segment of Victoria's railway network (Duke 2020). The planning strategy finally adopted by government retained the geographic and institutional integrity of the regional network instead of restructuring it to enable high-speed rail development. InterCity did

not materialise but struggles surrounding its planning, which encompassed the MARL and RRR, stimulated new geographies of governance that reshaped regional politics and regional institutions in Hume. Emergent networks of regional actors influenced the planning and prioritisation of strategic rail projects and secured significant public investments in regional passenger rail; nevertheless, the realpolitik of rail infrastructure governance inscribed certain limits to their newfound influence and autonomy. Three limits stood out in the analysis for their potential to illuminate the relationship between high-speed rail planning and the regional integration of Hume.

The first limit is institutional in nature because it stems from tensions between the state and powerful non-state actors. RFI structured InterCity to smooth Victoria's transition to high-speed rail development by aligning the economic and political objectives of governments with the commercial objectives of national corporate actors. Unbundling the regional rail network would allow IFM investors to derive profit from railway operations and property development by integrating land use and transport network development. High-speed rail could in turn unlock the economic potential of regional communities by improving connectivity to metropolitan Melbourne and promoting urban development opportunities around station sites. However, it was easy for the Victorian government to walk away from the unsolicited IFM bid because the hybrid institutional structures needed to procure InterCity did not exist. This limited the influence and autonomy of regional actors because planning authority and political power was centralised in government instead of distributed among state and non-state actors with interests in different regional geographies.

This outcome points towards a second limit that is political in nature because it stems from partisan conflicts over infrastructure governance. InterCity ascribed a privileged position to corporate actors in network governance because it made their participation a necessary feature of network development. Corporatisation of network governance was a feature of all three high-speed rail proposals, but InterCity was distinct from East Coast HSR and the CLARA Plan because it required corporate actors to appropriate elements of the state-owned regional network instead of building a dedicated network. This prospect sat more comfortably with the Coalition than it did with Labor who preferred planning solutions that retained government control over spatial planning and connected rail investments to state-significant projects like Wodonga Logic. This limited the autonomy of regional actors by reducing opportunities for rail governance reforms to enhance their institutional capabilities and political influence. Implementation of a publicly owned MARL, RRR or East Coast HSR did not require governments to

restructure regional institutions because extant institutional structures could be used to integrate transport and land uses. By contrast, the actor networks enlisted by RFI to embed InterCity into Hume indicate that any step change in regional connectivity would be accompanied by commensurate step change in regional governance.

This points towards a third and final limit that is geographic in nature because it stemmed from a set of political and institutional conditions that are particular to Hume. Regional cities in Hume are more peripheral to metropolitan Melbourne than regional cities that they compete with for public investment. Further, Hume's status as a peripheral region is reinforced by the relationship of regional actors to the political structures that govern infrastructure development in Victoria. Political cycles in Victoria have conspired to marginalise regional electors in Hume because Labor has dominated State politics since the turn of the century. Regional actors capitalised on this situation by disrupting regional politics and instigating governance reforms that overcame partisan and sectoral barriers to infrastructure development. These strategies were successful in attracting public investment to Hume and, by extension, delivering social and economic benefits to the region, but they did not transform spatial governance in substantive ways by devolving planning authority or fiscal powers to regional institutions.

(9,980 words)

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9. The Committee for Echuca-Moama was formed in 2011, two years before C4GS, but Echuca is a regional centre in Victoria's settlement hierarchy (unlike Greater Shepparton and other cities with 'Committees for' that are regional cities).
10. In addition to $356.6 million committed by the Victorian government to the Goulburn Valley line by May 2018, the Commonwealth and Victorian governments jointly committed an additional $400 million in August 2021.

Chapter 10. Conclusion: transforming spatial governance

Chapter 10 explores the influence of high-speed rail planning on spatial governance in Hume by synthesising findings of the geographic and institutional analyses. The chapter, which is structured around the four research questions, culminates in a discussion of the principal research question: how is high-speed rail planning in Hume connected to processes of regional integration in Australia? (RQ1) The opening section returns to the normative origins of the research to discern whether we moved towards a regionally integrated approach to high-speed rail planning in Hume. The following two sections adopt a critical mode of inquiry to characterise the model of spatial governance advanced by each proposal. The discussion in these sections relate the discursive, institutional and political frameworks that governed network planning to the regional governance reforms documented in the research. The closing sections consider the prospects for regionally integrated high-speed rail planning in Hume by examining the influence of emergent actor networks on infrastructure planning and regional governance. The discussion concludes by reflecting on the usefulness of Raco's 'hybridities' framework in explaining the case of high-speed rail planning in Hume.

10.1. Towards regionally integrated high-speed rail?

The geographic analysis in Chapter 6 gave a correlate to the institutional analyses in Chapters 7, 8 and 9 by exploring the spatial geographies of high-speed rail planning in Hume. The combination of quantitative and qualitative analytical techniques illuminated the disparate trajectories for regional integration promoted by East Coast HSR, the CLARA Plan and InterCity Blueprint. The analysis found that high-speed rail development could restructure social and spatial relations between communities in metropolitan and non-metropolitan regions and reorganise patterns of settlement system growth along Australia's southeastern seaboard. Furthermore, each proposal engendered a 'geographic fix' that targeted different cities and regions for connectivity and accessibility improvements. These findings are now revisited, considering findings from the institutional analysis, to address the second research question: to what extent and in what ways do recent high-speed rail proposals constitute an integrated approach to spatial planning in Hume? (RQ2)

10.1.1. East Coast HSR

East Coast HSR is regionally integrated to the extent that network planning and project governance reinforced Hume as a space for state planning. A model of spatial governance called 'integrated corridor development' looked to align network planning with current and future state-significant projects in Hume. In Wodonga, for example, major transport projects connected to the NLTN supplied the spatial and institutional context for integrating high-speed rail into Hume. Situating a high-speed rail station next to the Logic intermodal freight hub—approximately 20 km west of Wodonga—complemented recent Commonwealth and State government investments in the NLTN and State and Local government investments in Wodonga Logic. Additionally, the multilevel structures that governed planning for East Coast HSR reflected the multilevel structures that governed state-significant projects in Wodonga, Victoria, and in Albury, NSW: both structures were hierarchic in form and promoted the regional policies of the Commonwealth and respective State governments.

The integrated corridor strategy entrenched the multilevel structures that govern relations between governments in Australia's federal system. The strategy also reinforced economic hierarchies between metropolitan and non-metropolitan regions by prioritising connectivity to elements of the NLTN that serve the primary and secondary economic sectors; namely, major road and freight rail infrastructures. Consequently, the decision to situate a high-speed rail station near Wodonga Logic required significant investments in public transport infrastructure to integrate the station site into the settlement system. In Greater Shepparton, on the other hand, no strategic initiative comparable to Logic existed at that time. The decision to situate the high-speed rail station on greenfield land approximately 10 km east of the city centre was said to be informed by geographic constraints (see AECOM et al. 2013a, 227); however, the research found that planners also favoured the site for its potential to support the development of a new freight airport. Again, like Wodonga, significant investments in public transport infrastructure are needed to connect the station to the city.

Consequently, East Coast HSR is spatially integrated from the perspective of state planning but poorly connected to public transport networks and urban land uses. Instead of promoting compact forms of urban development it would be likely to disaggregate industrial functions and promote car-dependent forms of suburban growth. Moreover, the geographic analysis (Chapter 6) found that East Coast HSR could reinforce the territorial dynamics identified in the case description (Chapter 5) by exacerbating interstate competition in Albury-Wodonga and interregional competition between Greater Shepparton and other regional cities in Victoria. The spatial strategies formulated by

network planners to integrate the station sites into Hume were consistent with the spatial strategies formulated by Hume RMF (2014) to guide the growth of regional settlements. Combined with these strategies, East Coast HSR would restructure the urban space of both cities by introducing new development nodes on their peripheries, reorganising local transport networks and rerouting connectivity to Melbourne and Sydney through new station sites.

10.1.2. The CLARA Plan

It is difficult if not impossible to reconcile CLARA's vision for high-speed rail development with the vision of regional development articulated by governments in spatial plans and regional policies. If constructed, the CLARA Plan could restructure the spatial economy of Hume around a network of new cities that mediate social and spatial relations between metropolitan and non-metropolitan regions. CLARA prefigured an urban region whose geographic structure diverged radically from Hume because instead of growing existing regional cities attached to the NLTN it proposed to grow new cities attached to high-speed rail. CLARA forged a spatial geography that, like East Coast HSR, positioned metropolitan regions as 'engines' of the national economy (see Kelly et al. 2014). However, unlike East Coast HSR, the CLARA Plan harboured a distinct global dimension because the proponents wished to build the high-speed rail network and new cities using private capital sourced from multinational firms and financial markets instead of from Australian governments.

CLARA advanced a model of spatial governance called 'master planned development' that bundled infrastructure procurement and property development into a single delivery structure. While advocates of the plan had differing opinions about the role of governments in project procurement, the general trajectory for network governance and urban and regional planning was towards greater private-sector control. The conventional forms of LVC favoured by Coalition policymakers would give governments a degree of control over project planning while 'value creation'—a novel form of LVC—would give CLARA near total control over project planning. The market-led policy frameworks enlisted by CLARA to integrate high-speed rail into Hume stood in contrast to the government-led frameworks proposed for East Coast HSR. Consequently, the integrated corridor strategy engendered an 'open framework' for spatial growth were public investments in transport infrastructure lead private property development, whereas the master planned development model engendered a 'closed

framework' where transport infrastructure and property development are tightly controlled by CLARA.

Notwithstanding structural differences between East Coast HSR and the CLARA Plan, it is misleading to conclude the former is more regionally integrated than the latter. To reiterate, East Coast HSR is regionally integrated to the extent that it reinforced Hume as a space for state planning. However, Hume is a construct of state power in the same way that CLARA's new cities would be a construct of private power. Notably, neither proposal seemed especially responsive to local and regional policies that promote land use and transport integration. The Commonwealth was more consultative than CLARA during the early planning stages but, in both examples, the structures governing project planning privileged the strategic goals of national actors over the planning goals and development needs of regional communities. In many respects, the physical distance between the proposed station sites and regional cities in Hume reflected the power asymmetries between the proponents and regional actors.

10.1.3. InterCity Blueprint

Contradictory findings in the geographic analysis made it difficult to discern whether InterCity constituted an integrated approach to spatial planning in Hume. InterCity is more connected to the settlement system than East Coast HSR and the CLARA Plan because RFI proposed use existing railway corridors to access regional cities. Notwithstanding differing levels of spatial connectivity to Albury-Wodonga and Greater Shepparton, the project could promote more balanced patterns of spatial growth in Hume by enhancing intermodal connectivity and accessibility in central urban areas. On the other hand, the quantitative spatial analysis found that InterCity could target connectivity and accessibility improvements towards Melbourne's peri-urban zone and the inner-ring regional cities, thus entrenching current patterns of uneven development across Victoria (see Chapter 5). Additionally, the analysis found that Benalla and Wangaratta could experience stronger connectivity and accessibility improvements than Albury-Wodonga and Greater Shepparton, thus undermining government plans for settlement system growth in Hume.

However, before drawing a line under these findings, it is important to note the connectivity and accessibility impacts of the proposed airport rail link were discounted in the analysis (see Chapter 6). Consequently, the final assessment must rely more heavily on findings from the institutional analysis to discern the geographic fix advanced by InterCity (see Chapter 9). RFI's proposal to restructure Victoria's regional rail network

around Melbourne airport imbued InterCity with a distinct global dimension owing to the spatial geographies of air travel and the institutional geographies of the airport owners. Their blueprint sought to extract revenue from infrastructure development and property development by joining two nodes in the transport network owned by a single institutional investor. Additionally, it unbundled Victoria's railway network to attract private investment from domestic and global financial institutions and open the regional passenger network to competition.

Additionally, the geographic fix advanced by InterCity contained a distinct regional dimension because it would allow communities in Hume to bypass the metropolis to access global transport networks. Arguably, the direct airport connection redefined the putative definition of 'regional' in Australian planning—a hinterland connected to the world by a dominant state capital city—by granting regional cities a degree of autonomy from the metropolis. The actor networks that organised around InterCity reinforced these characteristics because they spanned territorial levels, social sectors and regional geographies. Like East Coast HSR, InterCity would be delivered through a partnership between governments and national corporate actors; however, unlike East Coast HSR, InterCity reproduced these governance structures in Hume. Collaboration between the City of Greater Shepparton and C4GS on a range of local strategic initiatives connected to passenger rail planning supplied evidence of this. These structures are characterised as 'neocorporatist' because they exhibited novel characteristics at both the national level and the regional level.

10.2. Production of high-speed rail planning space

One could draw a direct line between the political rationalities and planning discourses that framed each proposal and the governance strategies developed by network planners. The rationalities and discourses promulgated by the proponents produced a 'space' for high-speed rail planning that privileged certain forms of institutional and political power. This recalls what Henri Lefebvre (1991, 11) described in *The Production of Space* as "the active—the operational or instrumental—role of space, as knowledge and action, in the existing mode of production", where the abstract realm of meaning and ideas transforms the concrete realm of the urban. In the context of this study, moreover, it exemplified Raco's (2006, 325) concept of hybridities where the rationalities and discourses of state planning "establish and build *subjectivities* in and through which government programmes and strategies can be operationalised and implemented" (emphasis original). Planning discourses cultivated by the state and powerful non-state

actors formed a nexus between the power structures that legitimised high-speed rail planning and the governance strategies that embed project planning into Hume.

For example, the bureaucratic rationalities that underpinned East Coast HSR shaped network planning in profound ways. Planners relied on tools like cost-benefit analysis to identify network nodes, justify the choice of railway technologies and select the preferred corridor options and station sites in non-metropolitan regions. Knowledge from the economic sciences entrenched state power in network planning to the extent that cost-benefit analysis is predicated on the socialisation of project benefits. Additionally, discourses promulgated by state and non-state actors after the 2007-08 GFC promoted greater Commonwealth involvement in urban and regional policy and stronger cooperation between Australian governments to address impending crises including climate change, urban congestion and declining housing affordability. As the Minister for Infrastructure, Hon. Anthony Albanese MP, explained, government control of project planning is warranted because the benefits of high-speed rail development flow through government coffers:

> And one of the things about the 'let's do it for free' proposals is that they ignore—when they give economic analysis with the emphasis on value capture from individual corporations—the national economic return through the taxation system and the national economy that enhanced growth would bring. So, they ignore the value capture from the Treasury, essentially. And I think that's what makes it particularly attractive. (Participant 40)

Accordingly, East Coast HSR promoted government objectives for settlement system growth set out in the national urban policy (see Australian Government 2011) and regional settlement policies (see Victorian Government 2014c, Hume RMF 2014). However, the spatial strategies developed by network planners were in tension with the principles that underpinned these policies. Planners harked global discourses heralding the advent of an 'urban age' to justify strategies that prioritised connectivity to major cities, but they failed at this time to articulate a comparable set of discourses and strategies that connected high-speed rail to the regions. The Victorian government and Local governments bridged this gap by conceptualising Hume as a 'multicentred' region where urban spatial growth is 'balanced' and thus more sustainable (see Hume RMF 2014). As discussed, however, the geographic analysis found the station sites chosen by planners are too weakly connected to existing urban areas and public transport services to promote such outcomes (see Chapter 6). Additionally, the analysis found that East Coast HSR

could entrench economic hierarchies between regions because the station sites in metropolitan regions were proximate to tertiary industries while the station sites in non-metropolitan regions were proximate to primary and secondary industries.

The CLARA Plan eschewed state interventionism because it is informed by conservative political ideology. Nation building sentiments articulated by Kevin Rudd's vision for a 'big Australia' (see ABC News 2009) and Anthony Albanese's plan for a national high-speed rail network recalled the period of post-war reconstruction when Australian governments actively shaped industrial policy and regional development. By contrast, the extreme forms of commercial rationality that underpinned CLARA precluded 'big government' and promoted private-sector control of state planning. The analysis traced the origins of CLARA's planning discourse to a small but powerful cabal of conservative politicians who, while in opposition, developed an urban vision based on the shibboleths of neoconservative ideology: personal responsibility, small government, fiscal restraint and public sector efficiency. Value creation embodied these ideologies by proposing to give private actors total control over infrastructure funding and finance.

Visions of an inland urban frontier featured prominently in the rhetorical construction of CLARA's plan for high-speed rail and new city development. Calls to 'rebalance the Australian settlement' and 'open up the regions' for growth sought to resurrect the project of urban decentralisation in Australia (see Cleary 2017, 2018). CLARA imbued its planning vision with overtones of spatial justice by arguing that high-speed rail could promote a fairer dispensation of development benefits between metropolitan and non-metropolitan regions. However, it defined 'development' on narrow terms that positioned regional Australia as a *tabula rasa* for real estate speculation. CLARA also relied heavily on multinational corporations and foreign direct investment to realise its plan. The consortium recast narratives about urban decentralisation in Australia by re-imagining regional development in the image of global finance and private power. The new cities would function as frictionless spaces for the accumulation of private capital, free from the spatial and institutional strictures of the Australian city.

InterCity hybridised the political rationalities and planning discourses that informed East Coast HSR and the CLARA Plan. Like CLARA, RFI argued that InterCity could 'rebalance' population growth away from the dominant metropolitan regions; however, RFI proposed to redirect that growth toward existing regional cities instead of to new cities. A similar set of political rationalities were at play to the extent that both projects sought greater private-sector control over state planning. The private MARL would

restructure the regional rail network around privately-owned transport nodes inside metropolitan Melbourne. Additionally, it connected infrastructure development to property development through a combined ownership structure. Like East Coast HSR, however, RFI positioned the state as a prominent actor in project procurement to whom profits from station area developments could fall. In this respect, the 'blueprint' stood for a new settlement between the state and non-state actors that carved up the regional rail network and shared the commercial benefits of property development.

The realpolitik of InterCity—constituted by struggles over the MARL and Regional Rail Revival (RRR) program—highlighted tensions between the disparate rationalities that drove high-speed rail planning between 2008 and 2017. Ideological differences between the state and non-state actors involved in East Coast HSR and the CLARA Plan were apparent owing to the partisan origins of both projects. East Coast HSR advanced Kevin Rudd's vision for a "new era of cooperative federalism" (Rudd quoted in Metherell 2007) by integrating the economic and political objectives of governments and the commercial objectives of national corporates. By contrast, CLARA advanced a conservative urban agenda by granting national and global corporates considerable control over state planning. InterCity internalised these ideological rifts to the extent that RFI structured the project—spatially and institutionally—to resolve the competing objectives of the state and powerful non-state actors. Nonetheless, the Victorian government's desire to retain full control of the MARL—and thus public control of the regional rail network—showed the divergent rationalities of high-speed rail planning to be irreconcilable during the study period.

It is useful to consider the example of InterCity in greater detail at this point in the discussion because the rationalities and practices that informed its planning appeared to enhance the power and influence of regional actors. Planning discourses promulgated by RFI harboured a spatial equity dimension that linked high-speed rail investment to enhanced social, economic and environmental outcomes for regional communities. The 'state of cities' concept, for example, embodied forms of distributive justice that looked to extend the benefits of economic integration to outlying regional cities such as Albury-Wodonga and Greater Shepparton. Additionally, RFI worked closely with organisations that represent the interests of regional communities including Local governments, RCV and 'Committees for' including C4GS. Nonetheless, no matter how well-intended these governance practices, the findings of the geographic analysis indicate that InterCity could produce problematic planning outcomes in Hume by targeting connectivity and accessibility improvements towards the inner-ring regional cities (see Chapter 6).

10.3. Competing models of spatial governance

The institutional analyses in Chapters 7, 8 and 9 moved inductively across territorial levels, social sectors and regional geographies to understand how high-speed rail planning was enacted at the national and regional levels (RQ4). Each chapter connected the national structures that governed project planning to the regional institutions and actor networks engaged in rail infrastructure planning. The structure of the institutional analyses thus construed the relationship between the national and regional levels in hierarchic terms. In retrospect, however, it is apparent that project governance evolved in relation to institutional shifts instigated by regional actors. The task now is to consider each example of high-speed rail planning as a single case study where project governance "is embedded in broader processes of socialisation and the meeting of autonomous and contrasting political demands" (Raco 2005, 343). The logical place to begin this work is East Coast HSR because the structures that governed network planning most closely resembled the structures that governed Hume.

10.3.1. Entrenching state-corporatism

East Coast HSR and Hume RMF are mutually constitutive owing to parallels in their institutional structures and supposed urban and regional effects. The multilevel structures that underpinned East Coast HSR reinforced Hume RMF by centralising state control over spatial planning and positioning governments as the primary conduit for infrastructure funding and debt finance. Growing demands at that time for state intervention in infrastructure development legitimised government leadership in project planning. Moreover, as shown in the geographic analysis, the polycentric patterns of urban growth envisaged by government planners depended upon the construction of East Coast HSR (see Chapter 6). East Coast HSR reinforced state spatial strategies by targeting connectivity and accessibility improvements towards Shepparton and Wodonga and, in principle, by promoting balanced spatial development in Hume. Nevertheless, the institutional analysis (Chapter 7) and the case description (Chapter 5) highlighted governance issues that could undermine these planning outcomes.

The case description framed Hume as a 'constructed' region whose geographic and institutional parameters are periodically restructured to promote the economic and political imperatives of Australian governments (see Chapter 5). Hume's evolution as a space for state planning is shaped by two territorial dynamics that frame the relationship between high-speed rail planning and regional governance in Hume. First, in recent

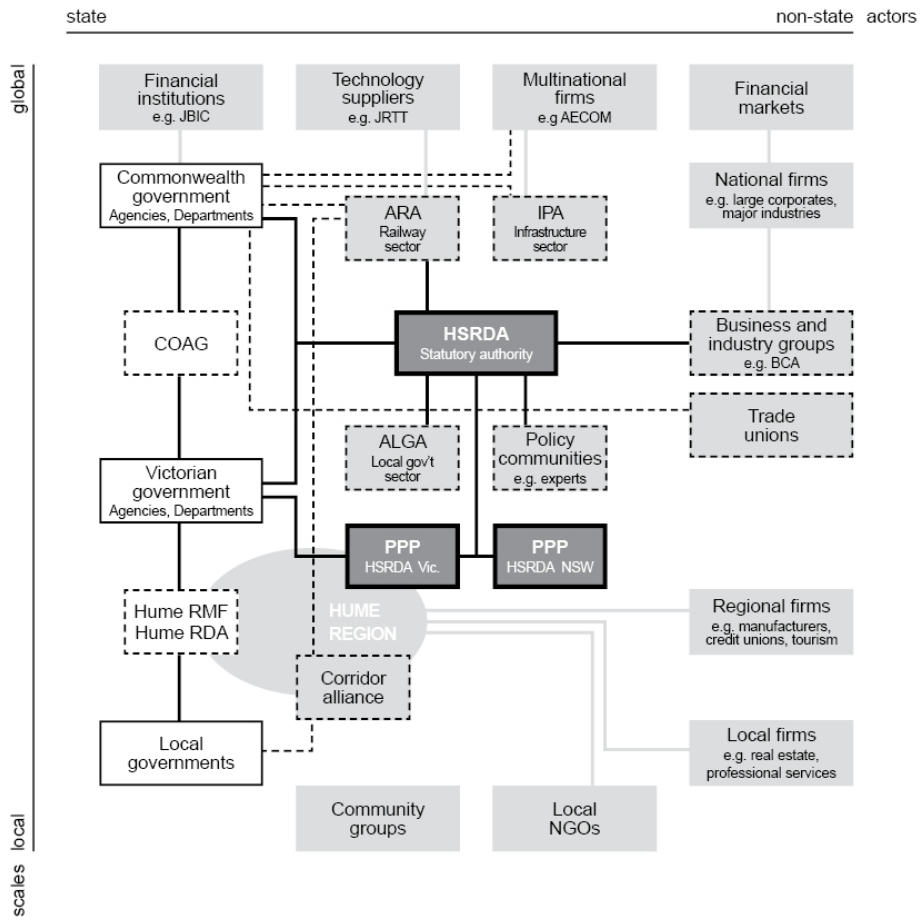
decades, governments 'up-scaled' the boundaries of territorial subunits from the urban-level to the regional-level. Governance reforms including Local government amalgamations in the 1990s, geographic expansion of Commonwealth administrative regions, also in the 1990s, and establishment of Hume RMF and Hume RDA in the 2000s all gave evidence of this phenomenon. Second, geographically variegated forms of interlocal competition emerged in parallel to these institutional reforms. In Albury-Wodonga, for example, new institutions like Hume RMF and Hume RDA, which engender interstate competition, replaced legacy institutions like AWDC, which engendered interstate cooperation. In Greater Shepparton, on the other hand, the analysis found that Hume RMF and Hume RDA were unable to address planning issues associated with interregional competition in Victoria.

The urban spatial effects introduced by East Coast HSR could entrench these territorial dynamics by reinforcing the geographies and sectors privileged by Hume RMF. The corridor alignment and station sites chosen by network planners promoted the Commonwealth government's objectives for transport network development, the Victorian government's objectives for industrial development and both governments' plans for regional settlement growth. Nevertheless, it is prudent to distinguish between the stated planning goals of governments and the 'actually existing' practices that governed East Coast HSR and Hume RMF. For example, the Victorian government established the network of RMFs to address critical welfare and sustainability issues in the regions. Most importantly, policymakers wanted to improve the social, economic and environmental performance of regional communities by integrating land use and transport network development; however, the spatial strategies and regional policies formulated by government planners promoted the decentralisation of industrial functions and car dependent forms of suburban growth. East Coast HSR is likely to entrench these urban dynamics by locating 'regional thru stations' on peripheral sites.

East Coast HSR also promoted the commercial objectives of national corporate actors in railway operations and station area developments. The institutional structures formulated by network planners (see Figure 54) reflected forms of corporate state governance that emerged in Australia at the turn of the twenty-first century. Within these structures, corporate power is accommodated by hybrid institutions that integrate the strategic objectives of the state and powerful non-state actors. The HSRDA gives an example of this phenomenon. It is arguably the product of 'competing and contrasting political demands' because it accommodated the interests of corporate actors in network procurement—especially in planning and development of regional thru stations—while

retaining government control of spatial planning and regional policy. Additionally, the structures governing HSRDA and Hume RMF constrained the influence and autonomy of regional actors by distancing regional institutions from decisions about network planning. These structures made regional communities dependent upon the state and national corporate actors to deliver station area developments and local strategic initiatives connected to high-speed rail.

Figure 54. Spatial governance of integrated corridor development

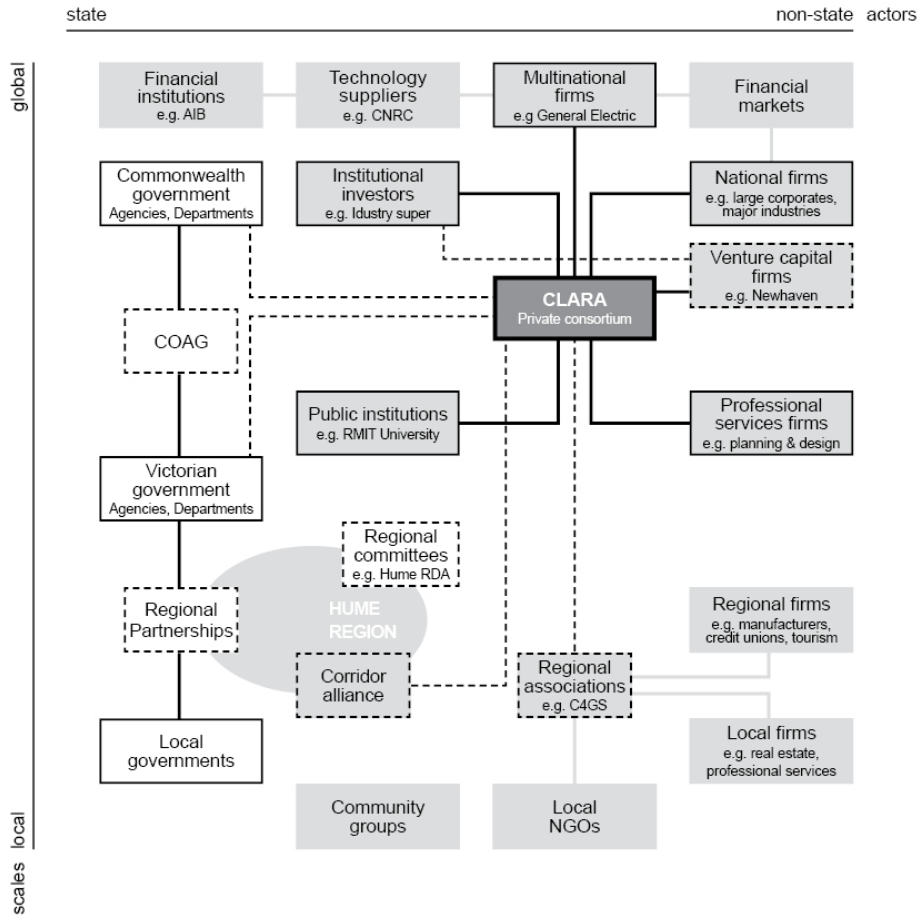


10.3.2. Expanding the private-state

The actor networks that organised around CLARA stood in relief to the corporate state structures that organised around East Coast HSR. As discussed, CLARA privileged integration between national and global corporate actors instead of between national corporate actors and Australian governments. Indeed, CLARA's desire to circumvent the state was the defining feature of its high-speed rail and new cities plan. Not content to co-opt bureaucratic processes by political means, or to enter formal arrangements that render the goals of corporations indistinguishable from those of governments, CLARA sought

total private control over project procurement. Novel forms of 'market-led' governance would allow CLARA to bypass state planning and control both infrastructure development and property development (see Figure 55).

Figure 55. Spatial governance of master planned development



The CLARA Plan was a reaction to East Coast HSR by political actors who rejected the corporate state as a settlement between Australian governments and the private sector. CLARA personified a revanchist corporate sphere intent on reclaiming political ground lost to governments in the wake of the GFC. It is in this context that Victoria's MLP guideline can be understood as a product of 'competing and contrasting political demands' where the power of national and global corporate actors grew relative to the state. Buoyed by expanding reservoirs of private finance in domestic and global capital markets, CLARA conceptualised a private network of cities planned and delivered beyond the influence of governments. Cooperation between national and multinational firms instead supplied the mechanism for integrating infrastructure development and property development. Value creation positioned CLARA as the conduit for global capital flows, connecting domestic venture capitalists with interests in the infrastructure

and property sectors to multinational firms and institutional investors that have access to global finance.

As discussed, CLARA advanced a model of spatial governance called 'master planned development' that gave corporate actors a monopoly over project procurement. The model enacted a form of 'private statism' that, although libertarian in character, subjected the production of urban space to corporate hegemony. The high-speed rail network and new cities including station areas, public spaces and property developments would be constructed entirely by private capital and structured around the needs of the dominant employment sponsor in each city. CLARA gave private firms total control over city planning by incorporating property development into the vertically integrated model of network governance. The master planned development model strayed so far from existing forms of spatial governance that it is difficult to envision how governments could influence spatial planning without undermining the institutional and political foundations of CLARA's plan. That CLARA received lukewarm support for its proposal from the Victorian government and regional actors in Hume supplied anecdotal evidence of this.

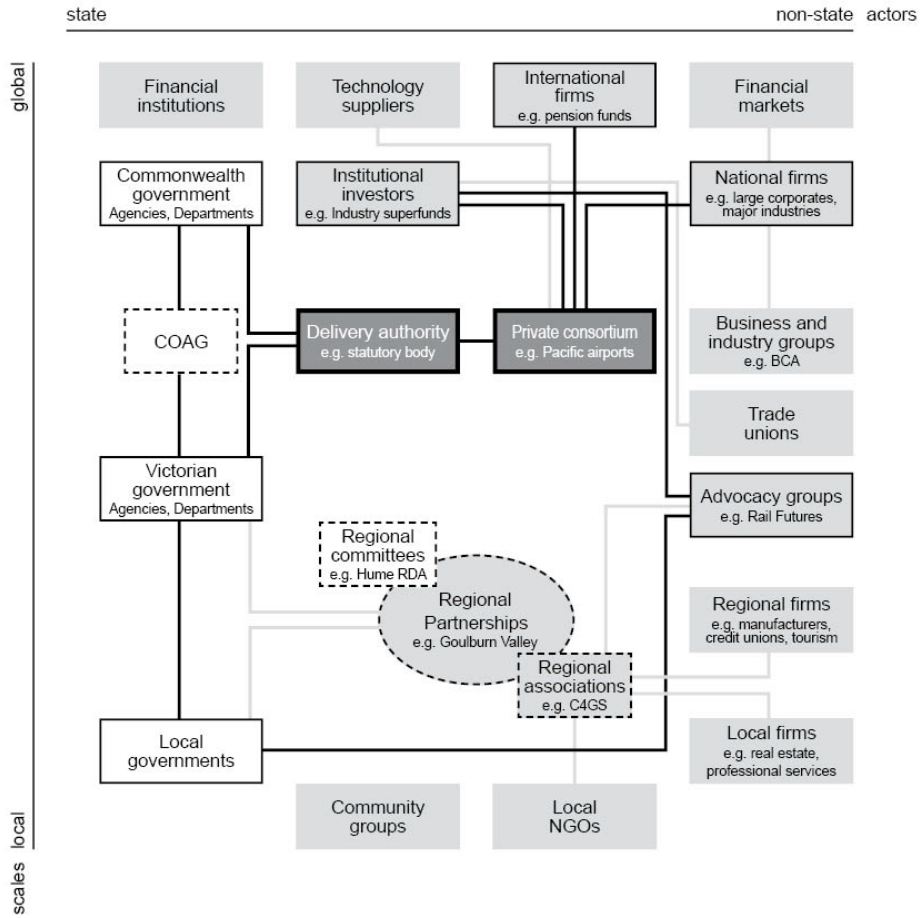
10.3.3. Embedding neocorporatist formations

The devolved institutional structures that governed InterCity stood in contrast to the centralised structures that governed East Coast HSR and the CLARA Plan. The model of network governance promoted by RFI registered the growing influence of industry superfunds in Australia's infrastructure sector by granting IFM Investors considerable influence over network planning. Moreover, the model of network governance resembled new geographies of governance that emerged in Hume around 2013 and 2014. National corporatist structures were connected to Hume through RFI's work with emergent actor networks; specifically, in Greater Shepparton. The analysis connected shifts in network governance to shifts in regional governance by assuming a regional perspective on high-speed rail planning. It found the rise of independent MPs in Hume instigated a wave of governance reforms that challenged state control of infrastructure planning by disrupting status quo partisan alignments. Notably, the political disruptions coincided with a period of intense cooperation between Local governments and non-government groups on issues surrounding regional passenger rail.

The hybrid governance model advanced by RFI looked to align the economic and political objectives of governments and the commercial objectives of corporate actors by sharing control of project planning and development between them. InterCity supplied a template for private investment in the regional network by streamlining the machinery of

government and introducing market-based mechanisms to integrate land use and transport development. These features of InterCity could be construed as forms of market-led high-speed rail planning; however, they diverged from the model advanced by CLARA because planning responsibilities would be shared between governments and private actors instead of being outsourced entirely to private actors (see Figure 56). Horizontal separation of Victoria's railways gave institutional investors scope to participate in network planning, but governments retained control of spatial planning and network operations. Nevertheless, political struggles surrounding the MARL and RRR suggest that non-state actors desired greater control over network planning to implement their long-term plans for high-speed rail development.

Figure 56. Spatial governance of the networked city-region



Planning for InterCity was enacted through corporatist structures that constituted a new settlement between the state and national corporate actors; specifically, the Commonwealth and Victorian governments and institutional investors aligned with trade unions. In this vision of project governance, governments and private consortiums partner to develop network segments that enhance the performance of privately-owned

infrastructure assets: Melbourne Airport and Southern Cross Station in the case of InterCity. The 'networked city-region' supplied a model of spatial governance to extend this new settlement between governments and national corporate actors to non-metropolitan regions. According to RFI, InterCity would transform Victoria into a 'state of cities' by expanding the spatial economy of metropolitan Melbourne to incorporate a greater number of regional cities. Moreover, InterCity portended a break from the managerialist structures that governed Hume RMF by accommodating the commercial objectives of non-state actors in network planning. The moniker 'neocorporatist' aptly describes the political structures that underpin InterCity because these connected emergent corporatist formations at the national and regional levels. Here we find evidence that high-speed rail planning transformed spatial governance in Hume by cultivating actor networks that diverged in form and character from existing regional institutions. It is in this sense that high-speed rail planning in Australia coevolved with regional institutions in Hume between 2008 and 2017.

Table 20 consolidates these findings by charting the spatial governance of high-speed rail planning in Hume between 2008 and 2017. East Coast HSR, CLARA Plan and the InterCity Blueprint are organised in chronological order (left to right) to highlight shifts in the rationalities, discourses, and practices (top to bottom) that governed project planning. Accordingly, the table documents institutional reforms in Hume that paralleled high-speed rail planning. A salient feature of the table is that project governance shifted from state-centric models (e.g., East Coast HSR) towards devolved models that are more accommodating of private power (e.g., CLARA Plan and InterCity Blueprint). Notably, InterCity accommodated corporate actors more than East Coast HSR but less than CLARA. Evidently, these shifts are part of a "broader socialisation process" where the "autonomous and contrasting political demands" of different actors (Raco 2005, 343) played out through high-speed rail planning in Hume.

10.4. Politics of regional integration in Hume

Regional institutions in Hume coevolved with the institutional structures that governed high-speed rail planning in Australia between 2008 and 2017. Although East Coast HSR and InterCity exhibited a stronger relationship to extant and emergent regional structures than CLARA, the general trajectory for spatial governance was towards the neoliberalisation of urban development and regional institutions. If constructed, high-speed rail would integrate Hume into metropolitan Melbourne by restructuring the spatial

Table 20. Spatial governance of high-speed rail planning, 2008 to 2017

Proposal	Government-led East Coast HSR	Market-led CLARA Plan	Hybrid InterCity Blueprint
Spatial governance	Integrated corridor development; form of infrastructure-led development	Master planned development; bundle infrastructure and property development	Networked city-region; unbundle state rail network to connect strategic nodes
Political rationalities	Economic/bureaucratic; interventionist state (public > private)	Commercial/financial; small government (public < private)	Commercial/economic; government as partner (public = private)
Planning discourses	Compact city; metropolitan consolidation	Rebalance the Australian settlement; 'open up the regions'	'State of cities'; rebalance regional population growth
Political structures	Corporate state	Private state	Neocorporatist
Institutional fix	Commonwealth and State gov't levels; strengthen links between the state and national corporates e.g., domestic rail infrastructure sector	Private-sector firms; strengthen links between global and domestic corporate actors e.g., global private finance and local property sector	Governments and institutional investors; cultivate domestic capacity to integrate infrastructure and property development e.g., superfunds
Geographic fix	National / metro; consolidate national settlement hierarchy around national land transport network	Global / metro; restructure settlement hierarchy around new privately-owned intermediate cities	Global / regional: connect regional cities directly to global nodes inside metropolitan transport network
Network governance	Monopoly control; vertically integrated (government owned / privately operated); nominal open access	Monopoly control; vertically integrated (privately owned and operated); no open access regime	Shared control; vertically separated (mixed ownership and service provision); full open access regime
Planning governance	Centralise planning control; reinforce Hume RMF / RDA structures; PPP with governments and national corporates	Outsource planning control; bypass regional institutions; CLARA sole conduit for private finance	Devolve planning control; new hybrid regional institutions; augment state funding with private finance

economy of Victoria and increasing economic competition between different non-metropolitan regions. Additionally, the urban effects of high-speed rail could restructure the institutional geographies that constitute Hume by introducing new regions of development potential that undermine existing territorial structures. These eventualities pose significant planning challenges and development opportunities for regional communities. As this single case study of high-speed rail planning in Hume showed, however, the social effects of the technology precede its implementation because the institutions enlisted to embed high-speed rail into the regions emerged in parallel to the national structures that governed network planning.

This understanding of the relationship between high-speed rail planning and regional governance gives a departure point to discuss the principal research question: how is high-speed rail planning in Australia connected to processes of regional integration in Hume? (RQ1) Before addressing this question it is pertinent to recall the historical relationship between infrastructure planning and regional governance in Hume. Over the decades, the geographical and institutional parameters of Hume have shifted in lockstep with the scale and scope of state-significant projects: AWDC and the National Growth Centres project, Hume RMF and the NLTN and C4GS and the Foodbowl Modernisation project all give examples of this phenomenon. Additionally, the examples of ground-up institutional reform varied because they were conditioned by territorially specific forms of interlocal competition. In Albury-Wodonga, for example, ground-up governance reforms looked to address the planning challenges of economic and political competition between NSW and Victoria. In Greater Shepparton, on the other hand, regional actors looked to address the planning challenges associated with competition for public investment between regional cites. Consequently, actor networks in each subregion pursued different vectors of institutional reform: actors in Albury-Wodonga targeted the national institutions that govern relations between Australian governments, while actors in Greater Shepparton targeted the institutional and political structures that govern public infrastructure spending in regional Victoria.

High-speed rail planning mapped unevenly onto the emergent institutions in Hume because East Coast HSR, the CLARA and InterCity Blueprint harboured different trajectories for regional integration. Each proposal advanced distinct geoinstitutional forms as the foundation for urban development and regional governance. These findings resonate with observations from the case description about the relationship between infrastructure planning and regional governance in Hume (see Chapter 5). It follows that high-speed rail planning in Australia is connected to processes of regional integration by

its potential to embed new institutional forms and political structures into non-metropolitan regions. This convergence between national and regional-level structures can be explained by the top-down nature of infrastructure planning and regional governance in Australia; however, the analysis identified ground-up moments of institutional reform that indicate greater reflexivity between territorial levels than is typically acknowledged in the planning literature. In the case of high-speed rail planning in Hume, reform unfolded through localised struggles against the political structures that govern public investment in critical infrastructure including regional passenger rail.

The institutional structures that governed infrastructure development in Hume ossified in the first decade of the twenty-first century, which made it difficult—if not impossible—for regional actors to overcome political barriers to sustainable development. Labor governments looked to address this problem by establishing new institutions—Hume RMF and Hume RDA—that connected regional actors to the government agencies and departments that plan critical infrastructures and implement regional policies. The Victorian government, for example, delegated strategic spatial planning to State and Local government officials to enact its social welfare and economic reforms. However, when governments failed to deliver even modest levels of public investment in critical infrastructure—let alone high-speed rail—regional actors explored alternative structures to pursue their development goals and needs. It is pertinent at this point in the discussion to recall the vision of balanced development articulated by Hume RMF (2014, 3)—"a multi-centred region within the context of a multi-centred state"—depended on the construction of East Coast HSR (see Chapter 6). The relevance of Hume as a state planning space thus declined when Commonwealth power shifted in 2013 and the incoming Coalition government shelved Labor's plans for high-speed rail.

Partisan politics thus connects high-speed rail planning in Australia to processes of regional integration in Hume (RQ1). It is significant that Labor governments enacted most regional governance reforms between 2008 and 2017, considering that communities in Hume traditionally support candidates put forward by the Liberal and National parties. A good-faith interpretation of the reforms would support the conclusion that regional institutions set up by Labor were a 'genuine' attempt to grow the economy and improve government service delivery. As David McKenzie opined, when explaining the most recent governance reforms, "it's all born out of the fact that Labor really, like genuinely, had this genuine attempt to understand regional matters better, and they knew that they couldn't do it with their skinny branch networks that are out here. They don't exist in most places" (Participant 62). On the other hand, a critical appraisal must note that Labor

stopped short of devolving decision-making authority to regional communities; an outcome that could indicate movement towards a regionally integrated approach to high-speed rail planning. Labor instead used infrastructure planning and the ground-up governance reforms to marginalise their political opponents and embed state-significant projects into the region.

The rise of the regional independent MPs disrupted partisan alignments that hindered public investment in Hume, but it did not transform the institutional structures that govern state planning in meaningful ways. Regional actors in Albury-Wodonga and Greater Shepparton influenced the planning and prioritisation of strategic rail projects by turning Hume into a politically contested space where public investment is weaponised by governments for partisan gain. Regional actors performed considerable institutional and political work to engineer this situation. Advocating for investment in passenger rail (including high-speed rail) were central to this work because improving regional connectivity would, in principle, help communities to overcome geographic barriers to economic development. While regional actors succeeded in securing significant public investment in the rail network—$356.5 million in the Goulburn Valley line[11] and $235 million in the Northeast line—they were unsuccessful in securing government support for high-speed rail development. Their struggles did, however, illuminate the institutional and political geographies that connect high-speed rail planning in Australia to processes of regional integration in Hume (RQ1).

Analyses of East Coast HSR and the CLARA Plan gave a national and even global perspective on the politics of high-speed rail planning in Australia. The realpolitik of InterCity gave a regional perspective by illuminating salient geographic and institutional barriers to project implementation. As discussed, RFI proposed to deliver high-speed rail by hybridising the MARL and RRR projects, but the InterCity Blueprint did not proceed because the Victorian government was unwilling to cede control of the MARL. Privatising strategic segments of the regional network to deliver high-speed rail was perhaps a step too far for Labor in Victoria, considering its electoral stronghold over the inner-ring regional cities and tenuous connections to electors in Hume. In addition to these political factors, InterCity ran aground because the requisite institutional structures were not in place to align the economic and political objectives of governments with the commercial objectives of corporate actors. Instead of restructuring the institutions of state planning to promote development of a ‘state of cites’, Labor’s decision to integrate the MARL into the suburban rail network reinforced the primacy of metropolitan Melbourne

in Victoria's spatial economy and entrenched the institutional structures that govern regional passenger rail.

High-speed rail did not materialise in Hume during the timeframe of this study because tensions between national planning actors could not be resolved; namely, conflicts between partisan actors over the model of network governance and between the state and powerful non-state actors over spatial planning and regional policy. Regional actors featured prominently in debates about high-speed rail planning but were peripheral to the institutional spaces that decided the fate of individual projects. Structural impediments aside, the research highlighted institutional and political capabilities that could provide the foundation for a regionally integrated approach to high-speed rail planning. Regional actors pursued their strategic objectives by working through the formal structures of democratic politics and informal networks that combine the institutional and political resources of state and non-state actors. Additionally, regional actors pursued their goals by instigating two governance reforms that restructured the geographic and institutional parameters of Hume. These reforms concur with observations from the case description (Chapter 5) and institutional analyses (Chapters 7, 8 and 9) about the nature of spatial governance in Hume.

10.4.1. New regional partnerships

In the first governance reform, in 2015, Labor replaced the RMFs (including Hume RMF) with a network of Regional Partnerships to "ensure regional communities have a greater say about what matters to them, and that the voices of these communities are heard directly at the heart of Government" (RDV 2019b, 1). Regional Partnerships registered the growing influence of non-state actors on spatial planning by removing the managerialist structure of Hume RMF and installing a corporate state structure that brought the representatives of business and industry groups and State and Local governments together. Two other features of the reform are noteworthy in the context of this study. The first involved connecting the members of Regional Partnerships directly to the Victorian government Ministers responsible for regional development. David Mckenzie, who advised government on the reforms (see Victorian Government 2015b, 9), explained that "Regional Partnership Chairs form the Minister for Regional Development's Advisory Committee, and I chair that statewide group as well . . . we come together six times a year and identify trends and systemic themes and statewide issues and challenges and opportunities . . . and then we give policy advice to the Minister" (Participant 62). Another feature of the reform was that it reflected the emergent

geographies of governance in Hume by splitting the region in two. The Goulburn Valley Regional Partnership approximated the geography of actors that organised around the Goulburn Valley line, while the Ovens Murray Regional Partnership approximated the geography of actors that organised around the Northeast line. Also notable, however, is that Labor kept the divisional boundaries of State government agencies and departments fixed to the boundary of Hume RMF.

In Hume, the shift to Regional Partnerships exemplifies how institutions of state planning are contingent and forged through political struggles that cross-cut territorial levels, social sectors and regional geographies. Additionally, it demonstrates how central governments 'embed' development agendas into non-metropolitan regions by cultivating 'regional subjectivities' to facilitate state planning (see Raco 2006, 325). The 'deal' between the Commonwealth and Victorian governments and regional actors in Greater Shepparton to deliver the Foodbowl Modernisation project epitomises this phenomenon (see Chapter 5). Notably, participants in the deal including Suzanna Sheed MP and David McKenzie went onto play significant roles in infrastructure planning and regional governance in Hume. Sheed, through her role as the State Member for Shepparton District, led the community campaign for public investment in the Goulburn Valley line and negotiated with the Victorian government to invest in RRR. McKenzie, through his role as inaugural Chair of C4GS, influenced the geographic and institutional parameters of regional governance in Hume by advising the Victorian government (2015b, 9) on the structure of Regional Partnerships. Additionally, McKenzie participated in a committee formed by Jacinta Allan, the Minister for Public Transport, to inform the Victorian government's (2016) Regional Network Development Plan, a blueprint for the RRR program (Participant 62).

Regional Partnerships registered the desire of non-state actors in Shepparton for greater influence over state planning by including business and industry groups in new governance arrangements. Additionally, the reform framed Greater Shepparton as an inner-ring regional city by excising the Goulburn Valley from Hume and giving it a conterminous boundary with metropolitan Melbourne; like the Barwon (Geelong), Central Highlands (Ballarat) and Loddon Campaspe (Bendigo) Regional Partnerships. In Albury-Wodonga, on the other hand, actor networks that organised around the Northeast line did not readily cohere with the geographic and institutional parameters of Regional Partnerships. The geographies of governance forged by BRAG, V4I, Cathy McGowan MP and Local governments transgressed the state border while Regional Partnerships did not. Consequently, Regional Partnerships could not register the desire of actors in Albury-

Wodonga to overcome planning issues associated with economic and political competition between NSW and Victoria.

10.4.2. New cross-border alliances

Regional actors in Albury-Wodonga instead looked towards legacy institutions like AWDC to address the planning issues that stem from interstate competition. Albury City and City of Wodonga (2017, 3) formed the Two Cities, One Community alliance in 2017 "to consider how programs being delivered in the two cities can be pooled and consolidated to enable greater community impact." In addition to spanning the state border of NSW and Victoria, Two Cities, One Community diverged from the Regional Partnerships structure because it reinforced the primacy of Local governments in regional governance. This reflected the strong leadership role played by Albury City and City of Wodonga in strategic initiatives such as the Nexus and Logic intermodal freight hubs, respectively. Two Cities, One Community has an informal structure—it only requires councillors and local government officials "to adopt a regional perspective and advocate to state and federal governments" (Albury City and City of Wodonga 2017, 3)—but it prefigures the emergence of more formal arrangements. As one Local government official explained, the ambition of the alliance is to inform planning, prioritisation and implementation of state-significant projects for the region:

> [Albury and Wodonga have] gone from essentially what was a competitive relationship in terms of economy and community to one of seeking opportunities to jointly leverage and collaborate on major projects, to have stronger strategic and infrastructure planning and to leverage funding from the State and Federal governments—funding we wouldn't dream of getting by acting on our own. (Participant 37)

Regional Partnerships and Two Cities, One Community resulted from concerted efforts by regional actors to restructure the geographic and institutional parameters of Hume—to transform spatial governance. Actors in Albury-Wodonga and Greater Shepparton worked through formal institutional structures and informal regional networks to reconstruct the region. The governance reforms reflected the regional identities and governing cultures of each subregion more accurately than did Hume RMF. However, the ground-up reforms had limited power to influence the investment priorities of the Commonwealth and NSW and Victorian governments. Additionally, the

rationalities and practices of neoliberal governance conditioned the reforms. Regional Partnerships, for example, registered the growing influence of non-state actors on state planning and restructured the geography of interregional competition in Victoria by framing Greater Shepparton as an inner-ring regional city. Regional actors in Albury-Wodonga, on the other hand, established Two Cities, One Community to leverage a Commonwealth grants program that promoted partnerships between governments and private firms on urban renewal projects (see Australian Government 2016c, RDV 2019a). Notably, the Commonwealth government awarded the grants on a competitive basis to cities with proven potential to increase economic productivity and employment growth.

The governance reforms did not enhance the power of regional actors in substantive ways by, for example, restructuring the formal institutions that govern infrastructure planning and regional policy. They did, however, promote Commonwealth and State government objectives for infrastructure development and industrial growth by empowering select regional actors and restructuring geographies of interlocal competition. In a corollary fashion, high-speed rail development could reify or recast the geographic and institutional parameters of the governance reforms. There were obvious synergies between East Coast HSR and the Two Cities, One Community alliance as both projects aimed to elevate the status of Albury-Wodonga in the national settlement hierarchy. East Coast HSR also integrated more readily into the institutional fabric of Albury-Wodonga owing to the strong role played by governments in urban and regional development. The hybrid InterCity Blueprint, on the other hand, gained significant traction among regional actors in Greater Shepparton owing to synergies between the corporatist structures that governed network planning and emergent regional structures. Additionally, InterCity could elevate Greater Shepparton's status in the settlement hierarchy, allowing it to compete more effectively with the inner-ring regional cities of Ballarat, Bendigo and Geelong. Nevertheless, these governance reforms are insufficient to secure a regionally integrated approach to high-speed rail planning in Hume because they did not devolve planning authority or fiscal resources to regional institutions.

10.5. Reflections on theory and method

In addition to addressing the research questions, this investigation of high-speed rail planning in Hume tested the conceptual framework developed in the literature review (Chapters 2 and 3). The framework combined Raco's (2005, 2006) understanding of spatial governance as a 'hybridity' of political rationalities and governance practices with structuralist accounts that highlight the geographically variegated character of regional

policies and institutions (see Brenner et al. 2010). In sum, hybridities usefully connected high-speed rail planning in Australia to regional governance in Hume by foregrounding the political rationalities and governance practices that enmeshed both projects. Conceptualising regional integration as a spatio-political process illuminated how regional identities and governance cultures are constructed through ongoing struggles over state planning. This opened the analysis to ground-up moments of institutional reform that destabilised top-down governance practices.

The study combined critical and normative modes of inquiry to identify the institutional and political obstacles to integrated spatial planning and to understand what can be done to overcome them. Conceptualising project planning as a political struggle, through which competing development agendas play out, illuminated how regional empowerment is circumscribed by the state and powerful non-state actors. The governance reforms that paralleled high-speed rail planning cultivated 'regional subjectivities' that embedded state-significant projects and national policy reforms into the region. The reforms exhibited authoritative moments where the power and autonomy of regional actors was constrained by the practices of neoliberal governance and the realpolitik of infrastructure planning. Conversely, the reforms exhibited liberating moments where formal democratic processes and informal governance structures helped regional actors to overcome development barriers. While the rationalities and practices of top-down governance are well documented in the domestic and international planning literature, the findings of this research suggest there is scope to better understand how ground-up moments of institutional reform can influence the planning and prioritisation of large infrastructure projects as well as the design of regional institutions. Nonetheless, the research findings raise questions about the democratic mandate of emergent actor networks in Hume, especially in situations where governance reforms bypass the structures of democratic planning or privilege the views of non-state actors.

Hybridities thus proved useful in exploring the subtle yet messy politics of infrastructure planning and regional governance in Australia. However, structuralist accounts of neoliberal governance helped to draw the geographic and institutional dimensions of the case into the same analytical frame. Specifically, these accounts illuminated the relationship between the potential urban and regional effects of high-speed rail development and current state spatial plans and regional policies. Here it was useful not only to analyse the rationalities and practices that governed high-speed rail planning but also the spatial geographies of actor networks privileged by different planning strategies. Conversely, the hybridities framework opens opportunities to

contribute to structuralist accounts of neoliberal governance by illuminating localised responses to territorially specific forms of interlocal competition. Drawing attention to the discursive frameworks and political strategies that regional actors used to pursue their development goals added texture and richness to the analysis. Consequently, combining Raco's hybridities framework with structural accounts of neoliberal governance by Brenner et al. (2010) and Allmendinger (2016) illuminated the relationship between high-speed rail planning in Australia and the regional integration of Hume.

Finally, the research methods developed in this study apply to the study of other kinds of infrastructure networks that span multiple regional geographies. Opportunities exist to build on the findings of the research by studying other large water, energy and communications infrastructures in Hume and other regions in Australia. The granularity of the single case approach is well-suited to the study of technically demanding, socially complex and politically contested large projects. The method is especially applicable to regional contexts like Hume where governance structures are shifting in response to competing demands from national and regional actors. The main methodological contribution of the study is, however, to connect the geographic and institutional dimensions of transport planning and regional governance. It achieved this by using a combination of conceptual frameworks and analytical techniques to relate the social and spatial dimensions of infrastructure planning and regional governance.

10.6. Future directions for the research

This study opened future directions for research into its constituent parts—high-speed rail planning and regional governance—and the relationship between them. Questions about the study fielded during a PhD completion seminar in August 2023 opened new directions while confirming others arrived at during the research. An obvious direction is to extend the study into the present moment to understand how project governance has evolved since federal Labor returned to power in May 2022 and established a High Speed Rail Authority (HSRA) (see Parliament of Australia 2022). Anecdotal evidence suggests that the HSRA combines elements of corporate state governance that underpinned East Coast HSR and neocorporatist elements that underpinned InterCity (see Catherine King MP 2023). The structure of regional institutions in Hume have not changed since the period of the research, although transport advocacy and policy work by the City of Greater Shepparton and C4GS and by Albury City and the City of Wodonga continues apace. Research is therefore needed to

understand how regional actors in Hume and in other non-metropolitan regions in Australia are organising around the current episode of high-speed rail planning.

A new episode of project planning raises old concerns about the harms caused by governments and private consortiums that propose ambitious transport programs and do not deliver. This problem calls for urgent research into strategies that can de-risk large projects by moving regional communities closer to centres of decision-making power. This study searched for the seeds of better planning practice in a domestic context where prior evidence of governance innovation was found, but the approach yielded more questions about the merits of ground-up governance reform than it did potential solutions. Another approach is to search for applicable governance practices in overseas contexts. The literature review drew on the European experience to develop a model of regionally integrated high-speed rail planning for Australia. Detailed studies of project planning and governance in overseas contexts could illuminate strategies that are useful in Australia. Specifically, such research could find specific examples where planning outcomes from high-speed rail development were enhanced by integrating regional communities into decision-making structures.

However, the findings of the research bring the compatibility of high-speed rail and sustainable development into question because they revealed significant disconnections between the economic and political imperatives of national actors and the transport needs of regional communities. This signposts directions for future research that interrogate the relationship between large infrastructure development in regional Australia and processes of capital accumulation that sustain national economic development and metropolitan growth. Such research could extend this single case study into high-speed rail planning in Hume through cross-case analyses of large projects for energy, water and telecommunications, or it could interrogate the political economy of other kinds of transport projects that integrate Australia's metropolitan and non-metropolitan regions.

(9,250 words)

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11. The amount of $356.5 million for Stage 1 and Stage 2 upgrades to the Goulburn Valley line does not include $400 million committed by the Commonwealth and Victorian governments in August 2021 for Stage 3 upgrades.

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(14,300 words)

Appendices

Appendix 1. Studies of high-speed rail planning in Australia, 1985 to present

Studied one or more questions of governance directly (8)
Black (1989a) Issues in the Assessment of the VFT.
Black (1989b) Very Fast Trains: Developments Overseas and the Proposal for Australia.
Chessell (1990) Implications of Privatizing a Major Component of Public Infrastructure.
Paris (1992) The Slow Death of a Very Fast Train: Government Resistance to a Privately Funded Transport Innovation.
Thornton (2002) Studies for an Australian East Coast Very High Speed Train.
Charles, Ryan and Kivits (2012) Moving Towards Sustainable Intercity Transport: A Case Study of High-speed rail in Australia.
Denham (2018) Regional Fast Rail and Regional Development: Irrigation or Desertification?
Terrill, Moran and Crowley (2020) Fast train fever: why renovated rail might work but bullet trains wont.
Studied one or more questions of governance indirectly (12)
Black (1989b) Very Fast Trains: Developments Overseas and the Proposal for Australia.
Swan and Reberger (1989) Can the VFT be made to Work?
Codner (1990) Environmental Issues of the VFT: An Engineering Perspective.
Craig (1990) Implications for Development and Population Growth in Inland and Coastal Areas.
Deutsch (1990) The Place of the VFT in Australia's National Transport Strategy.
Gilmour (1990) Resolving the Environmental Issues of the VFT.
Jeans (1990) Implications of the Construction Phase for Australia's Resources of Material, Heavy Construction Equipment and Skilled Workforce.
Princehorn (1990) Implications of VFT for Australia's Manufacturing Industry Capacity.
Rutherford (1990) VFT: The Conservation Issues.
Hensher et al. (2014) Assessing the Employment Agglomeration and Social Accessibility Impacts of High Speed Rail in Eastern Australia.
Mitchell, Martin and Laird (2014) Building a Railway for the 21st Century: Bringing High Speed Rail a Step Closer.
Moran et al. (2014) Rethinking High Speed Rail for Australia.
Studied mostly technical planning questions (14)
Lawrence (1990) Permanent Way and Route Engineering.
Nicolson (1990) Rolling Stock and Associated Systems.
Swan (1990) Financial and Cost Benefit Aspects of the VFT.
Gunn et al. (1992) High Speed Rail Market Projection: Survey Design and Analysis.
Hensher (1997) A Practical Approach to Identifying the Market Potential for High Speed Rail: A Case Study in the Sydney-Canberra Corridor.
Douglas and Thornton (2004) The Demand for High Speed Rail on the East Coast of Australia.
Laird (2011) Potential Reduction in Energy Use from a High Speed Rail Network in Australia.
Hensher et al. (2012) The Impact of High Speed Rail on Land and Property Values: A Review of Market Monitoring Evidence from Eight Countries.
Nepal (2013) Environmental Impacts of Proposed High Speed Rail in Australia.
Robertson (2013) High-speed Rail's Potential for the Reduction of Carbon Dioxide Emissions from Short Haul Aviation: A longitudinal study of modal substitution from an energy generation and renewable energy perspective.
Newman (2014) High Speed Rail in Australia: A Case Study for a Sydney-Wollongong Link.
Denham (2017) Metro-bound commuting and regional development: evidence from Victoria.
National Institute of Economic and Industry Research (2020) Stronger Together. An independent state-wide macroeconomic assessment of fast regional commuter rail network impacts on Victorian settlement patterns, economic growth, fairness and opportunity.
Pettit, Thackway and Wade (2022) High Speed Rail Value Uplift. Preliminary Investigation Report.

Note: Studies in each category listed in chronological order.

Appendix 2. Policy documents, reports and project plans, 2008 to 2013

Document type	Document name
HSR studies and bills:	AECOM et al. (2011) HSR Study: Phase 1 Report
	AECOM et al. (2013a) HSR Study: Phase 2 Report (incl. appendices)
	Parliament of Australia (2013) High Speed Rail Planning Authority Bill
	High Speed Rail Advisory Group (2013) On Track: Implementing High Speed Rail in Australia
Advocacy papers and reports:	Canberra Business Council (2008) High Speed Rail for Australia: An Opportunity for the 21st Century
	Infrastructure Partnerships Australia & AECOM (2010) East Coast High Capacity Infrastructure Corridors: A Realistic Pathway to Fast Trains
	Australasian Railway Association [ARA] (2010) Moving People: Solutions for a Growing Australia
	CRC for Rail Innovation (2010) High-speed Rail: Strategic Information for the Australian Context
	Australian Greens (2012) High Speed Rail: Benefits that Add Up
	Beyond Zero Emissions (2014) Zero Carbon Australia: HSR*
Commonwealth-level regulations and policies:	Parliament of Australia (2008) Infrastructure Australia Act
	Parliament of Australia (2009) Nation Building Program (National Land Transport) Act
	Australian Government (2011) Our Cities, Our Future: A National Urban Policy for a Productive, Sustainable and Liveable Future
State-level regulations, polices and plans:	Victorian Government (2008) Victorian Transport Plan
	Victorian Government (2009a) Melbourne @ 5 Million
	Victorian Government (2009b) Towards an Integrated and Sustainable Transport Future: A New Legislative Framework for Transport in Victoria
	Parliament of Victoria (2010) Transport Integration Act 2010
	Victorian Government (2014b) Plan Melbourne*
Regional and local-level policies and plans:	Victorian Government and Hume RMF (2010a) Hume Regional Plan: The Hume Strategy for Sustainable Communities 2010-2020
	Victorian Government (2012a) State of the Hume Region 2010-2012
	Hume RMF (2013) Digital Hume: A Digital Strategy for a Smart Region
	Victorian Government and Hume RMF (2014) Hume Regional Growth Plan
	Deloitte Access Economics (2014) High Speed Rail Economic and Social Benefits for Hume
Public policy debates:	City of Wodonga (2009) Submission to the Economic Development and Infrastructure Committee Inquiry into Manufacturing in Victoria
	Hume RLGN (2012) Submission to the Parliamentary Inquiry into Local Economic Development Initiatives in Victoria
	City of Wodonga (2012) Submission to the Economic Development and Infrastructure Committee Inquiry into Local Economic Development Initiatives in Victoria
	Parliament of Victoria (2012) Inquiry into Effective Decision Making for the Successful Delivery of Significant Infrastructure Projects
	Australian Bureau of Statistics (2013) A Review of RDA Committees 2010-11 Regional Plans: Issues Identified by Regions
	Regional Development Victoria (2013) Accelerating Regional City Growth: Evidence and Policy Approaches

Note: * indicates document published after 2013 that are relevant to events analysed in the first period of the research between 2008 and 2013.

Appendix 3. Policy documents, reports and project plans, 2014 to 2017

Document type	Document name
HSR studies and bills:	Consolidated Land and Rail Australia (2016) The CLARA Plan
	Rail Futures Institute (2016) InterCity: How Regional Rail can Re-balance Population Growth and Create a "State of Cities" in Victoria
	Parliament of Australia (2015b) High Speed Rail Planning Authority Bill
	Australian Government (2017b) Faster Rail Prospectus
	Parliament of Australia (2017) High Speed Rail Planning Authority Bill
Advocacy papers and reports:	Aurecon and Australasian Railway Association (2014) The Potential Impacts of High Speed Passenger Rail to Eastern Australia. A Discussion Paper
Commonwealth-level regulations and policies:	Australian Bureau of Statistics (2013) A Review of RDA Committees 2010-11 Regional Plans: Issues Identified by Regions*
	Parliament of Australia (2014a) Infrastructure Australia Amendment Act 2014
	Parliament of Australia (2014b) National Land Transport Act
	Australian Government (2016a) Independent Review of Regional Development Australia RDA Program
	Australian Government (2016c) Smart Cities Plan
	Australian Government (2016e) Western Sydney City Deal: Delivering Transformative Change for Western Sydney
	Australian Government (2017a) Australian Government Response to the Independent Review of the Regional Development Australia program
State-level regulations, polices and plans:	Victorian Government (2015c) Victoria's Regional Statement: Your Voice, Your Region, Your State
	Victorian Government (2015b) Regional Economic Development and Services Review
	Victorian Government (2015a) Market-led Proposal Guideline
	Victorian Government (2016) Connecting Regional Victoria: Victoria's Regional Network Development Plan
	Infrastructure Victoria (2016a) Regional Citizen's Jury Report
	Infrastructure Victoria (2016c) 30-year Infrastructure Strategy
	Victorian Government (2017d) Plan Melbourne 2050. Metropolitan Planning Strategy
Regional and local-level policies and plans:	John Hearsch Consulting (2017b) The Shepparton–Melbourne Rail Corridor: A Guide to Proposed and Planned Infrastructure Projects
Public policy debates:	Infrastructure Australia (2015) Australian Infrastructure Audit: Our Infrastructure Challenges
	Parliament of Australia (2016) Harnessing Value, Delivering Infrastructure: Senate Inquiry into the Role of Transport Connectivity in Stimulating Urban and Economic Activity
	Infrastructure Australia (2016) Capturing Value: Advice on Making Value Capture Work in Australia
	Infrastructure Victoria (2016b) Value Capture: Options, Challenges and Opportunities for Victoria
	Infrastructure Australia (2017) Corridor Protection: Planning and Investing in the Long Term

Note: * indicates document published before 2014 that are relevant to events analysed in the second period of the research between 2014 and 2017.

Appendix 4. Values assigned to key elements in the transport network

Network element	Geography	
	Metropolitan areas	Regional areas
Major roadways		
National/State highways	70 kmh	90 kmh
Arterial roads	60 kmh	80 kmh
Sub-arterial roads	50 kmh	70 kmh
Neighbourhood streets	-	40 kmh
Major air routes		
Sydney-Melbourne	-	85 min.
Sydney-Canberra	-	55 min.
Melbourne-Canberra	-	65 min.
Regional railways		
Inner-urban	45 kmh	-
Middle-urban	65 kmh	-
Outer-urban	80 kmh	-
Non-urban	-	65-100 kmh
Airport terminals (transfers)		
Departures (road-to-air)	60 min.	-
Arrivals (air-to-road)	30 min.	-
Railway stations (transfers)		
Departures (road-to-rail)	5 min.	5 min.
Arrivals (rail-to-road)	5 min.	5 min.

Notes: to be read in conjunction with Table 18.

Appendix 5. Plain language statement and participant consent form

Plain Language Statement

Faculty of Architecture, Building and Planning

THE UNIVERSITY OF MELBOURNE

Project: Transforming Spatial Governance
High Speed Rail and the Regional Integration of Hume

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Tel: 0431 299 705 Email: jwhitten@unimelb.edu.au

Introduction

Thank you for your interest in participating in this research project. This plain language statement provides you with information about the project so that you can decide whether or not to participate. Please take the time to read this information carefully. You may ask questions about anything that you don't understand or would like to know more about.

What is this research about?

This project investigates prevailing agendas for high-speed rail (HSR) development in Australia to understand how different governance models will influence planning outcomes in regional areas. The influence of spatial planning strategies on outcomes from HSR development are well documented by existing literature but the influence of different governance models is relatively underexplored. A case study of the Hume region in northeast Victoria will identify the range of planning strategies and governance models advanced by (a) proponents of significant HSR proposals (b) key regional-level stakeholders and (c) strategic projects that are emerging in response to HSR. The aim is to link different governance models to scenarios for regional development using international cases and high-quality HSR studies from Australia. The research is guided by the question: to what extent and in what ways is the opportunity of HSR transforming planning and governance in regional Australia?

Why have I been approached?

You have been approached to participate in this project because of your expertise in urban planning and/or potential to influence the HSR planning process. Your name and contact details were obtained from a planning or policy document, government or non-government organization website, or other person interviewed for the project. Approximately 50 people will be interviewed.

What will I be asked to do?

Should you agree to participate in this project, you will take part in a 45 minute interview that will occur at a date, time, and location of your choosing. You will be asked permission for the interview to be audio-recorded. If you accept, you can request that the audio-recorder be switched off at any time. When the audio-recording has been transcribed, you will be provided with a copy of the transcription to verify that the information is correct and to request any edits and/or deletions.

What are the possible benefits?

There are no direct benefits from participating in this project. The results of the project are intended to inform policy debates about the governance of HSR development.

What are the possible risks?

There are no foreseen risks from participating in this project.

Do I have to take part?

Participation in this project is voluntary. Should you wish to withdraw at any stage, or to withdraw any unprocessed data you have supplied, you are free to do so without prejudice. Your decision to participate or not, or to withdraw, will not affect any relationship you may have with the university.

Will I hear about the results of this project?

Results from this project will be published in a Ph.D. thesis stored by the university. Chapters and/or preliminary results from the thesis may also be published in academic journals, conference proceedings and online forums such as The Conversation. Please notify the researcher if you wish to receive a two-page summary of results at the conclusion of the project.

Will my anonymity be safeguarded?

Should you request it, your anonymity will be safeguarded within the limits of the law. Your information will be de-identified through use of pseudonyms. However, because the number of people interviewed is relatively small, it is possible that someone may be able to identify you.

Will my confidentiality be protected?

The confidentiality of your data will be protected within the limits of the law. Your name and contact details will be kept in a file separate from any information that you provide.

What will happen to information about me?

Any information provided by you will be stored on a password protected system at the university that is only accessible by the named researchers (above). The data will be kept for five years from the date of publication, and may be destroyed after that time.

Where can I get further information?

If you would like more information about this project, please contact James Whitten via email at jwhitten@unimelb.edu.au or phone on 0431 299 705.

Who can I contact if I have any concerns about the project?

This research project has been approved by the Human Research Ethics Committee of The University of Melbourne. If you have any concerns or complaints about the conduct of this research project, which you do not wish to discuss with the research team, you should contact the Manager, Human Research Ethics, Office for Research Ethics and Integrity, University of Melbourne, VIC 3010. Tel: +61 3 8344 2073 or Email: humanethics-complaints@unimelb.edu.au. All complaints will be treated confidentially. In any correspondence please provide the name of the research team or the name or ethics ID number of the research project.

Participant Consent Form

Faculty of Architecture, Building and Planning

THE UNIVERSITY OF MELBOURNE

Project: Transforming Spatial Governance
High Speed Rail and the Regional Integration of Hume

Primary Researcher: Professor Brendan Gleeson (Supervisor)

Additional Researchers: Dr. John Stone (Supervisor) and Mr. James Whitten (Ph.D. Candidate)

Name of Participant: _____

1. I consent to participate in the research project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.
2. I understand that the purpose of the project is research.
3. I acknowledge that the possible effects of participating in the project have been explained to my satisfaction.
4. I understand that I will be required to participate in a 45 minute (approx.) interview that will, with my permission, be audio-recorded and subsequently transcribed by either the named researchers or a professional transcribing service.
5. I understand that my participation is voluntary and that I am free to withdraw from the project at any time, and to withdraw any unprocessed data that I have provided.
6. I understand that data from the project including audio-recordings will be stored on a password protected system at the university that is accessible by the named researchers (above), and that the data may be destroyed after 5 years from the date of publication.
7. Should I request it (below), I understand that my anonymity will be safeguarded subject to any legal requirements.
8. I understand that given the small number of participants involved in the project, it may not be possible to guarantee my anonymity.
9. Should I request it (below), I understand that a summary of findings will be forwarded to me at the conclusion of the project.
10. I understand that this signed participant consent form will be retained by the researcher.

I request that my anonymity be safeguarded: ☐ Yes ☐ No (please tick)

I wish to receive a summary of the findings: ☐ Yes ☐ No (please tick)

Participant Signature: _____ **Date:** _____

Ethics ID: 1748788.1 Consent Form: Version 01

Appendix 6. List of research participants

No.	Name or pseudonym	Position and/or organisation	Interview Date
1	Former proponent	Withheld	6 Oct 2017
2	Former State/Territory politician	Withheld	24 Oct 2017
3	John Hearsch	President, Rail Futures Institute	26 Oct 2017
4	Cr Jackie Fristacky	Councillor, City of Yarra	1 Nov 2017
5	Professor Peter Newton	Research Professor in Sustainable Urbanism, Swinburne University of Technology	8 Nov 2017
6	Public policy expert	Withheld	8 Nov 2017
7	Rowan Perkins	General Manager, Berrigan Shire	4 Jun 2018
8	Local business owner	Withheld	4 Jun 2018
9	Local councillor 1	Withheld	4 Jun 2018
10	Peter Harriott	CEO, City of Greater Shepparton	4 Jun 2018
11	Hon. Damian Drum MP	Member for Murray, National Party of Australia	5 Jun 2018
12	Cr Chris Hazelman	Councillor, City of Greater Shepparton	5 Jun 2018
13	Council officer 1	Withheld	7 Jun 2018
14	Community organiser	Withheld	8 Jun 2018
15	John Pettigrew	President, Goulburn Valley Environment Group	8 Jun 2018
16	Cr Ross Bodey	Councillor, Berrigan Shire	8 Jun 2018
17	Local councillor 2	Withheld	8 Jun 2018
18	Sam Birrell	CEO, Committee for Greater Shepparton	12 Jun 2018
19	Suzanna Sheed MP	Member for Shepparton, Independent MP	12 Jun 2018
20	Bill Tilley MLA	Member for Benambra, Liberal Party of Victoria	14 Jun 2018
21	Local councillor 3	Withheld	15 Jun 2018
22	Cr Anna Speedie	Mayor, City of Wodonga	15 Jun 2018
23	Council officer 2	Withheld	15 Jun 2018
24	Susan Benedyka	Acting Chair, Hume RDA Committee and member of Ovens Murray Regional Partnership	15 Jun 2018
25	Michael Gobel	Deputy Chair, Ovens Murray Regional Partnership and former Council officer	16 Jun 2018
26	Peter Veneris	General Manager, Lockhart Shire Council	16 Jun 2018
27	Local councillor 4	Withheld	18 Jun 2018

No.	Name or pseudonym	Position and/or organisation	Interview Date
28	Ian Scholes	Manager, Planning and Statutory Services, Indigo Shire Council	19 Jun 2018
29	Karen Gardener	Director, Economic Development and Tourism, Indigo Shire Council	19 Jun 2018
30	Neil Aird	CEO, Business Wodonga	19 Jun 2018
31	Bill Traill	Chair, Border Rail Action Group	20 Jun 2018
32	Michael Keys	Director, Planning and Environment Group, Albury City	20 Jun 2018
33	Andrew Boyd Barber	Urban Designer, Christchurch City Council and former Albury resident	20 Jun 2018
34	Alan Johnston	CEO, Committee for Wagga Wagga	21 Jun 2018
35	Hon. Tim Fischer AC	Member, HSR Advisory Group and former Deputy Prime Minister of Australia	22 Jun 2018
36	Cr Heather Wilton	Mayor, Greater Hume Shire Council	22 Jun 2018
37	Council officer 3	Withheld	22 Jun 2018
38	Emma Woods	General Manager, Passenger and Corporate Services, Australasian Railway Association	25 Jun 2018
39	Hugh Cooke	Chair, Southern Inland Region RDA Committee	25 Jun 2018
40	John Alexander OAM, MP	Member for Bennelong and Chair of Standing Committee on Infrastructure, Transport and Cities, Liberal Party of Australia	25 Jun 2018
41	Hon. Anthony Albanese MP	Member for Grayndler and Opposition Spokesperson for Infrastructure, Australian Labor Party	26 Jun 2018
42	Noel McCann	Director, Planning and Government Relations, Canberra Airport	26 Jun 2018
43	Public policy expert 2	Withheld	26 Jun 2018
44	Chris Berry	Director, Planning and Environmental Services, Yass Valley Council	28 Jun 2018
45	Commonwealth government planner 1	Withheld	29 Jun 2018
46	Commonwealth government planner 2	Withheld	29 Jun 2018
47	State/Territory planner 1	Withheld	29 Jun 2018
48	Robyn Hendry	CEO, Canberra Business Chamber	2 Jul 2018
49	Dale Budd	Principal, Dale Budd and Associates and Policy Advisor to Canberra Business Chamber	2 Jul 2018

No.	Name or pseudonym	Position and/or organisation	Interview Date
50	Yvonne Noordhuis	Policy Advisor, Canberra Business Chamber	2 Jul 2018
51	Geoff Kettle	Manager, Stakeholder Engagement, Consolidated Land and Rail Australia	2 Jul 2018
52	Duncan Edghill	Deputy Director-General, Transport Canberra, ACT Government	2 Jul 2018
53	Cr Bob Kirk	Mayor, Goulburn Mulwaree Council	3 Jul 2018
54	Mick Gentleman MLA	Minister for Planning and Land Management and Minister for Urban Renewal, ACT Government	3 Jul 2018
55	State/Territory planner 2	Withheld	4 Jul 2018
56	Jay Stricker	Director, Transportation, AECOM	5 Jul 2018
57	Professor Sue Holliday	Director, Urban Policy and Strategy, University of New South Wales	6 Jul 2018
58	Global business interest	Withheld	9 Jul 2018
59	Rodney Lindsell	Director, Western Sydney City Deal, Greater Sydney Commission, NSW Government	10 Jul 2018
60	Peter Thornton	Principal, Transportation Associates	12 Jul 2018
61	State/Territory politician	Withheld	3 Aug 2018
62	David Mckenzie	Chair, Goulburn Regional Partnerships and former Chair. Committee for Greater Shepparton	20 Dec 2018
63	Cr Fern Summer	Councillor, City of Greater Shepparton	20 Dec 2018
64	Jane Macey	Principal, Planning, Spiire Consultants, Shepparton	20 Dec 2018

Note: Position and/or organisation noted was at time of interview unless the research participant held another position that is relevant to the research e.g., is a former politician, project proponent or leader of a community organisation.

Appendix 7. List of third-party copyright materials included in thesis

Citation	Location in thesis	Permission granted
Map of the Trans-European Network. European Commission. 2020. "Mobility and Transport: Trans European Transport Network (TEN-T)." Brussels: Directorate-General for Mobility and Transport. Accessed 5 May 2020. https://ec.europa.eu/transport/themes/infrastructure/ten-t_en.	p. 26 (Figure 4)	No
Time–space maps of the European rail network (a) 1993 and (b) 2010. Spiekermann, Klaus, and Michael Wegener. 1994. "The shrinking continent: new time-space maps of Europe." Environment & Planning B: Planning & Design 21 (6):653-673. doi: 10.1068/b210653.	p. 37 (Figure 6)	No
Map of Hume Regional Growth Plan. Hume Regional Management Forum. 2014. Hume Regional Growth Plan. Department of Planning and Community Development. Melbourne: State of Victoria.	p. 107 (Figure 12)	No
Map of Hume in national context. Hume Regional Management Forum. 2014. Hume Regional Growth Plan. Department of Planning and Community Development. Melbourne: State of Victoria.	p. 126 (Figure 20)	No
Map of East Coast HSR base corridors and corridor options. AECOM, Grimshaw, KPMG, and SKM. 2011. High Speed Rail Study: Phase 1 Report. Department of Infrastructure and Transport. Canberra: Commonwealth of Australia.	p. 140 (Figure 25)	No
Map of East Coast HSR corridor options, Canberra to Melbourne. AECOM, Grimshaw, KPMG, and SKM. 2011. High Speed Rail Study: Phase 1 Report. Department of Infrastructure and Transport. Canberra: Commonwealth of Australia.	p. 141 (Figure 26)	No
Map of East Coast HSR preferred corridor alignment, Hume Region. AECOM, Grimshaw, KPMG, SKM, ACIL Tasman, Booz & Co., and Hyder. 2013. High Speed Rail Study: Phase 2 Report. Department of Infrastructure and Transport. Canberra: Commonwealth of Australia.	p. 142 (Figure 27)	No

Citation	Location in thesis	Permission granted
Diagram of CLARA Plan network structure. Consolidated Land and Rail Australia. 2016. "The CLARA Plan." Melbourne: Consolidated Land and Rail Australia. Accessed 31 December 2018. http://www.clara.com.au.	p. 146 (Figure 29)	No
Artist's impression of the CLARA Plan. Consolidated Land and Rail Australia. 2016. "The CLARA Plan." Melbourne: Consolidated Land and Rail Australia. Accessed 31 December 2018. http://www.clara.com.au.	p. 148 (Figure 31)	No
Artist's impression of a CLARA new city. Consolidated Land and Rail Australia. 2016. "The CLARA Plan." Melbourne: Consolidated Land and Rail Australia. Accessed 31 December 2018. http://www.clara.com.au.	p. 148 (Figure 32)	No
Diagram of InterCity Blueprint network structure. Rail Futures Institute [RFI]. 2017. InterCity and AirTrain: The Rail Futures blueprint for faster and better regional trains in Victoria and re-balancing population growth. A presentation to Regional Cities Victoria by John Hearsch and Peter Tesdorpf on 26 October 2017. Carlton, Vic.: Rail Futures Institute.	p. 149 (Figure 33)	No
Shepparton railway precinct master plan. Spiire Australia. 2017. Shepparton Railway Precinct Master Plan (Final). Prepared for the Greater Shepparton City Council. Shepparton, Vic.: City of Greater Shepparton.	p. 151 (Figure 35)	No
Diagram of East coast high-capacity corridor concept. Infrastructure Partnerships Australia [IPA], and AECOM. 2010. East Coast High Capacity Infrastructure Corridors: A Realistic Pathway to Very Fast Trains. Sydney: Infrastructure Partnerships Australia and AECOM Australia Pty Ltd.	p. 189 (Figure 44)	No
Diagram of high-capacity corridor section. Infrastructure Partnerships Australia [IPA], and AECOM. 2010. East Coast High Capacity Infrastructure Corridors: A Realistic Pathway to Very Fast Trains. Sydney: Infrastructure Partnerships Australia and AECOM Australia Pty Ltd.	p. 189 (Figure 45)	No
Diagram of Albury-Wodonga Bus Network. Public Transport Victoria. 2014. Albury/Wodonga bus network map. Public Transport Victoria and Dyson Group. Melbourne: State of Victoria.	p. 132 (Figure 46)	No

Citation	Location in thesis	Permission granted
Diagram depicting the geography of the Border Rail Action Group. Border Rail Action Group. 2015. "Border Rail Action Group Facebook Homepage." Border Rail Action Group: Facebook. Accessed 26 March 2020. https://www.facebook.com/pages/category/Community/Border-Rail-Action-Group-220746821606815.	p. 238 (Figure 49)	No
Photo of All Aboard Shepparton campaign action. Sheed, Suzanna. 2015. "All Aboard Shepparton." Shepparton, Vic.: Suzanna Sheed MP, Independent Member for Shepparton District. Accessed 8 November 2023. https://suzannasheed.com.au/portfolio-item/all-aboard-shepparton.	p. 240 (Figure 50)	No
Photo of Bill Russell, Sam Birrell and John Hearsch at Shepparton Station. Committee for Greater Shepparton. 2016. "John Hearsch says Shepparton is 'today's poor rail relation'." Shepparton, Vic.: Committee for Greater Shepparton. Accessed 3 February 2023. https://www.c4gs.com.au/news/john-hearsch-says-shepparton-todays-poor-rail-relation.	p. 248 (Figure 52)	No

Note: Third-party copyright material is included in this thesis for the purposes of research, criticism or review.