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# Reimagining Australia's South-East

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*This research project follows two Committee for Melbourne workshops, one in Melbourne and one in Sydney, exploring the case for an Eastern Seaboard Megaregion. We thank the Committee for Sydney for participating in the workshops and supporting our research.*

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# Executive summary

## The need for a megaregion across Australia's south-east

Australia's south-east has a handful of highly productive major cities- Melbourne, Sydney and Brisbane – that attract residents, visitors and workers. However, the distance between these major cities and the distance to supply chains across the world is vast.

As global economies diversify and embrace jobs of the Fourth Industrial Revolution[1], competition between major east coast cities for the same new economy jobs could make Australia's South East less competitive in the dynamic Indo-Pacific region and undermine our attractiveness as a destination for major investment.

Rather than just competing, our east coast cities need to integrate better and function more as a collective. This integration will help our growing population reap the benefits of a network of complementary economies.

Further impetus for this comes from Australia's population growth, which continues to centre around major cities. This growth comes with considerable costs (tens of billions of dollars every year) to daily liveability and productivity, which in turn present significant risks for our future.

In such a rapidly changing world, we need to collaborate more to help unlock tens of billions of dollars of economic benefits, remain internationally competitive and maintain our high living standards.

Creating an Australian Eastern Seaboard Megaregion (AESM) would enable a vision to be developed about how we could respond to these challenges, resulting in enhanced collaboration and integration across Australia's south-east. A megaregion is a set of cities- integrated with each other and their surrounding hinterlands – where labour and capital can be moved around at a very low cost.

Cities in a megaregion are characterised by interlocking economic systems, common transportation systems, shared natural resources and ecosystems, which link their population centres, thus providing significant opportunity for collaboration.

In Australia, there are real opportunities to uplift some smaller east coast regional cities by strengthening land connections between major cities and channelling more investment across the region.

Opportunities for greater collaboration between cities across Australia's south-east

The formation of an Australian Eastern Seaboard Megaregion

[1]Jobs of the *Fourth Industrial Revolution* will require complex problem solving, critical thinking, creativity, interpersonal skills and leadership (World Economic Forum, 2020), Available from URL: https://www.weforum.org/about/jobs-and-the-fourth-industrial-revolution

## What could an Australian Eastern Seaboard Megaregion achieve?

- **Improve national productivity and economic growth**
- **Boost innovation and specialisation, and our capacity to compete in international markets**
- **Economic participation across the megaregion**
- **Improve liveability and boost the tourism economy across the megaregion**
- **Improve liveability across the megaregion and boost the tourism economy**

Led by urban economist, Richard Florida, *The Rise of the Megaregion* was a ground-breaking study published just over a decade ago. According to the study, the world's top 40 megaregions made up only 18 percent of the world's population but were responsible for two-thirds of global economic output and close to 90 percent of patented innovations.

Megaregions out-compete nation states as economic powerhouses. Florida identified 40 megaregions with an economic output of more than $100 billion, producing 66 percent of world output and accounting for 85 percent of global innovation.[2] These days, when multinationals are looking to invest, they are increasingly looking at megaregions as opposed to individual countries or cities.[3]

This project examines current growth trends across Australia and the spatial implications of those trends. It explores what a future settlement pattern could look like if different approaches were taken to integrate Australia's south-east better. It doesn't aim to answer all the questions, but instead sets out some next steps and actions to progress the conversation started by this paper.

### In the news

At a recent population summit, NSW Planning and Public Spaces Minister, Rob Stokes, called out the narrow focus of treasuries as they work on a population framework. According to discussions at the summit, "Australia is sleepwalking its way towards becoming a nation of three megacities – centred on Melbourne, Sydney and South-east Queensland – with regions which struggle with social and economic equity issues."

Building on Infrastructure Australia's 2019 infrastructure audit update, reports from the summit emphasised the need for a national settlement strategy, to address the fact that, "business-as-usual growth would incur substantial losses in national productivity – from a doubling of congestion costs to $38.8 billion in the next 12 years to a deterioration in employment choices and work-life balance."
*–David Williams, CEO of the Planning Institute of Australia, writing in The Age 24 September 2019: Nation is sleepwalking towards a three mega-city debacle.*

On 18 June 2019 CEO of Committee for Melbourne, Martine Letts, gave a speech at the Australian Institute of International Affairs, emphasising the need to "create an East Coast Megaregion that will help navigate Australia through the twenty-first century…and better compete in an increasingly interdependent, fast-changing world."

[2]Florida, R., Gulden, T., Mellander, C., The Rise of the Megaregion, 2007. Available from URL: <https://www.creativeclass.com/rfcgdb/articles/Florida,%20Gulden,%20Mellander_Megaregions.pdf>.
[3]Florida, R., Gulden, T., Mellander, C., The Rise of the Megaregion, 2007. Available from URL: <https://www.creativeclass.com/rfcgdb/articles/Florida,%20Gulden,%20Mellander_Megaregions.pdf>.

## THE PROPOSED AESM


Source: SGS Economics and Planning, 2019.

Australia does not have a megaregion. Effective collaboration between cities, and regions, throughout Australia's south-east, with the aim of forming a megaregion, will boost our economic productivity and innovative capacity; enabling us to better-compete in international markets. Other key benefits would include population dispersion to relieve our congested cities, help regional activation, improve housing affordability, reduce inequality, promote economic growth and job creation, and improve liveability.

## How would this be achieved?

A range of policy decisions and initiatives are needed to facilitate greater collaboration and the development of an AESM.

These initiatives include small and relatively simple undertakings, to large-scale investments and initiatives that generate significant change, such as:

- Combined tourism and investment attraction campaign
- An integrated and more efficient transportation network (e.g. high-speed rail, freight, rail gauges, alignment of transport ticketing systems)
- Technology and data share
- Combining specific state government resources
- Align business laws and regulations
- Align skills and education systems
- Create new cities as links between the larger cities.

## What could the productivity gain be from a megaregion?

There are opportunities to improve the economic outcomes within the megaregion, e.g. reduced congestion, improved strategic planning, improved housing affordability. To show what productivity gains from improved planning and integration could look like, if there were a one percent improvement to the economy of the megaregion, the national income would increase by $13,135 in 2018-19. By 2049-50, this would increase to $32,555.

The net present value of this one percent improvement over the 30 years would be $267.5 billion. The table below presents the possible gain for the Australian economy assuming 0.5 percent, 1.0 percent and 2.5 percent productivity.

POSSIBLE GAINS TO GDP (MILLIONS)

| Assumed improvement in GDP | 2018-19 | 2049-50 | NPV |
|---|---|---|---|
| 0.50% | $6,567 | $16,278 | $133,738 |
| 1.0% | $13,135 | $32,555 | $267,476 |
| 2.5% | $32,837 | $81,388 | $668,689 |

Source: SGS Economics and Planning, 2019.

# Introduction

Working with the Committee for Melbourne, SGS Economics and Planning has examined spatial growth trends across Australia. It explores different approaches to integrate the economy of the Eastern Seaboard of Australia.

## 1.1 Preparing our cities for the future

The Committee for Melbourne 4.0 Taskforce has been helping to prepare Greater Melbourne for the accelerating speed of innovation and disruption that has catapulted us to the early stages of the Fourth Industrial Revolution. The Taskforce has been considering what this may mean for Melbourne's future economy, liveability, infrastructure and **urban optimisation**, and how to secure the opportunities that will arise.

The Taskforce identified nine Strategic Needs that need to be addressed if we are serious about underpinning a liveable and flourishing Melbourne in the future. One of these Strategic Needs is 'Eastern Seaboard Collaboration'.

*According to the taskforce, a considered approach to our future urban growth patterns will enable Australia to better harness technological changes, boost the liveability of our cities and regions and help secure our future prosperity.*[4]

This paper outlines how Melbourne's (and more broadly how south-eastern Australia's) urban patterns can better support liveability, economic prosperity, inclusive access to appropriate jobs, and infrastructure optimisation and the planning, economic and governance considerations it may require.

## 1.2 How, why and where to grow?

Australia is one of the most urbanised countries in the world. Today, around 40 percent of Australia's population and 43 percent of gross domestic product (GDP) concentrate in our two largest cities.[5] If we include the population of Greater Brisbane then this increases to 64 percent. By 2050, the proportion of Australia's population living in the Melbourne-Sydney-Brisbane corridor is expected to increase from 64 to 71 percent.[6]

According to a 2017 Productivity Commission's report, 'better functioning towns and cities would deliver a $29 billion increase in GDP over the long-term.'[7] Current planning is occurring in an age of uncertainty, defined by climate change, global re-ordering of the economy, and increasing political polarisation affecting global institutions and norms. Our approach to planning needs to embrace uncertainty and set an ambitious vision for the country that anticipates change. Infrastructure Australia (2019) recommends:

- Infrastructure delivery that keeps pace with rapid population growth, particularly on the urban fringe of our four largest cities (Sydney, Brisbane, Melbourne and Perth), where provision is falling behind.[8]
- Reform and investment focussed on quality of life and productivity over the next 15 years, that responds to changing and growing demand and addresses a maintenance backlog.
- Planning and delivery approaches that are flexible and can adapt to constant and rapid change (uncertainty).

[4]Committee for Sydney, What we do: Priorities, available from URL: https://www.sydney.org.au/what-we-do-2/#priorities
[5]Matt Wade, The growing clout of Australia's twin urban giants, in the Sydney Morning Herald, 28 July 2018, available from URL: https://www.smh.com.au/business/the-economy/the-growing-clout-of-australia-s-twin-urban-giants-20180728-p4zu4l.html .
[6]Projections are based on medium fertility, medium life expectancy, medium overseas migration, medium interstate migration and medium interstate flows.
[7]The Productivity Commission, *Shifting the dial: 5-year productivity review,* 2017, Available from URL: https:www.pc.gov.au/inquiries/completed/productivity-review/report/productivity-review.pdf
[8]Infrastructure Australia Audit 2019

## The cost of living is on the rise

Today, those who cannot afford to live in the inner city face greater long-term costs of living by owning an additional car (around $100,000 in a lifetime). They also face higher risk from climate effects in the medium- to long-term, especially to the west of both Sydney and Melbourne, where water is more scarce, and the climate is hotter and drier.

While government efforts to encourage growth outside the CBD have been present in planning policies for some decades, emerging employment hubs struggle to retain talent despite government interventions.

The demand for living in inner city locations across Melbourne, Sydney and Brisbane, is evident in the growing difficulty people face entering housing markets in these cities.

Housing affordability is an increasing challenge. According to the Rental Affordability Index (RAI), Sydney is a critically unaffordable place to live, especially for lower income households.[9] The average rental household in Greater Sydney spends 27 percent on rent, while in some places this is as high as 40 percent. In Greater Melbourne, the median household spends 24 percent of its total income on housing, while in some suburbs the rent can be as high as 38 percent, as a share of median household income.[10]

[9]SGS Economics and Planning, Rental Affordability Index, November 2018 release. Prepared in partnership with the Brotherhood of St Laurence, Community Sector Banking, and National Shelter.
[10]Ibid.

## Our urban footprints are expanding

Further intensifying this challenge has been the expansion to urban footprints that have occurred in most major cities. In some cases, this has resulted in cities expanding their historical urban footprints and integrating with surrounding communities. For example, the Central Coast is now part of Greater Sydney, and Ipswich included as part of Greater Brisbane.

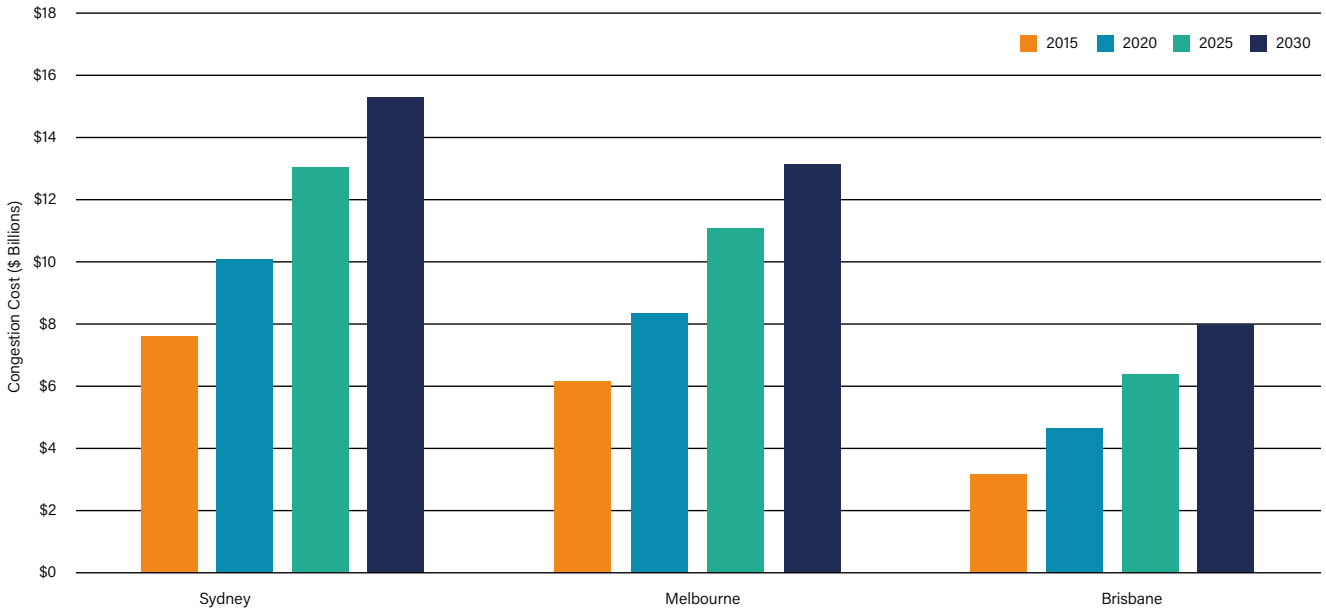
Even today, areas like Geelong, the Gold Coast, Sunshine Coast and Wollongong are increasingly part of the broader footprint of our capital cities, rather than remaining individual entities. This effect is often catalysed by improved transport links and often made more attractive by the lifestyle that comes along with moving to a smaller regional city, well-connected to jobs in a major city.

It highlights that there are a limited set of choices available to planners when considering urban form alternatives and ways to accommodate population growth in major cities.

A further impact of this pattern of urban growth is the experience of middle ring and growth area councils across Sydney and Melbourne, which are increasingly concerned about their resident's health and wellbeing. Residents in these areas spend longer and longer in their cars to access diverse employment opportunities.

**The Productivity Commission reported (2017) that congestion could cost the Australian economy up to almost $40 billion by 2031. Seventy-two percent of this cost will be borne by Sydney, Melbourne and Brisbane - which will have an enormous impact in the future if not addressed.**

FIGURE 1: COST OF CONGESTION ($ BILLIONS)




Source: BITRE Traffic and congestion cost trends for Australian capital cities

## We do not have an overarching plan

At present, there is no overarching plan which sets out our aspirations and objectives for how Australia's major cities should evolve in future, to guide infrastructure priorities and other investment to achieve these objectives. Our current approach is to view planning interventions through a 'prism of separate cities or regions, with occasional interaction and somewhat separate economic trajectories.'[11]

As highlighted throughout this paper, there is a need to extend our thinking about the performance of Australia's major south-eastern cities beyond their greater urban monocentres, if these places are to remain globally competitive and retain the liveability that, in part, makes them so.

Given the above, the Committee for Sydney has been exploring how the AESM could be a more integrated entity, with a shared vision for prosperity and liveability.

This paper sets out some suggestions to share the benefits of growth across the south-eastern parts of Australia (where growth is concentrated), and mitigate the negative externalities. Suggestions range from small policy harmonisations and innovations, such as standardised ticketing to improve connectivity between south-eastern cities, to broader and longer-term infrastructure solutions like high-speed rail, which could better connect the cities and towns. The project uses international examples (in the United States, Europe, China and Japan) to explore the notion of megaregions, and consider how to apply a transformation or step- change in Australia.

The primary considerations in developing responses to the challenge are:

— We want to give people access to high quality places, with major city functions where they live and attract talented people to help support great places.
— We want to be able to articulate that many places throughout Australia's south-east are great places to invest in, and have clear priorities about where and why to invest so our cities can remain competitive with their global counterparts.

Focussing on the economy and liveability this paper examines:

— Growth pressures in Sydney and Melbourne
— Current economic relationships
— The effect geography has on growth
— What a future settlement pattern could look like if different approaches were taken to connect Melbourne, Canberra, Sydney and Brisbane.
— The effect of linking key regional cities within Australia's south-east
— Steps and actions to progress the conversation started by the Committee for Melbourne and this paper.

[11] Committee for Sydney, The Sandstone Megaregion: Uniting Newcastle, the Central Coast, Sydney, Wollongong (2018), Available from URL: https://www.sydney.org.au/wp-content/uploads/2015/10/Committee_The_Sandstone_Megaregion_Final_Web2.pdf.


## *Smart* ticketing

Smartcard technology has been available since the 1990s, however a PwC report (2016) found that Australia's public transport ticketing reform and harmonisation has lagged significantly behind other countries. Part of the problem has been a strong adherence to different fare structures (flat rates in Adelaide and Canberra, versus distance-based fares in Brisbane, Perth and Sydney).

According to PwC, 'no Australian jurisdiction has clearly articulated its objectives for its urban public transport system in a holistic manner.' Without this local or even regional view, implementing something as seemingly simple as implementing important enabling systems, such as ticketing, across borders remain challenging from a governance perspective.

For example, the Opal system in Sydney means separate tickets/cards are almost obsolete (you can now touch on using a credit card or Smart phone). Meanwhile, the Myki system has only been rolled out across Victoria's regional network, extending from metro areas in the last 5-10 years. For those wanting to travel interstate by train between Sydney and Melbourne, a separate ticket must still be purchased.

For tourists or those travelling interstate frequently, ticketing variance remains a small but not insignificant example of the governance challenges faced in harmonising systems across Australia's state, and territory, lines. It emphasises the need to look beyond local solutions to ones that are capable of adapting to new technology, and allow governments to take advantage of this more quickly.

Source: PwC, Ticket to Ride: Reforming fares and ticketing for sustainable public transport (2016), available from URL: https://www.ttf.org.au/wp-content/uploads/2017/01/TTF-Ticket-to-Ride-Fare-and-ticketing-Paper.pdf

# The case for change

## 2.1 Liveable cities

### Our historical settlement pattern has generated highly liveable cities

Australia is one of the most urbanised countries in the world. Our cities are renowned for their lifestyle opportunities, sporting and cultural events, iconic landscapes, and plentiful job choices and business opportunities. For the past decade, Australian cities (Melbourne in particular) have been ranked highly among various liveability indexes.[12]

Major cities across Australia's south-east are growing, and projected to continue to grow more, as people are attracted to the rich lifestyle and job opportunities. However, as our favourite places grow, disadvantages such as an increased cost of living, greater congestion, longer commutes, and climate vulnerability are also increasingly likely.

This paper sets out some suggestions for how to share the benefits of growth across the south-eastern parts of Australia (where growth is concentrated), and mitigate the negative outcomes. To do this, a more integrated and coordinated approach- which considers how cities can evolve to complement each other- is recommended. This approach would:

— give people access to high quality places, with major city functions (centres that provide a diverse range of jobs, activities and housing for regional catchments[13]) where they live, and attract talented people to help support great places, and

— articulate that many places throughout Australia's south-east are great places to invest in, and have clear priorities about where and the reasons why so our cities can remain competitive with their global counterparts, and are uplifted alongside larger cities as our population across the south-east region continues to grow.

This chapter makes a case for further investigation into how Australia's south-east currently functions. It steps through the existing barriers that might prevent attaining highly liveable, and competitive economic prospectus for Australia's south-east. Such a prospectus could package up projects across the region, making them more attractive as larger investments, and more accessible compared to the current setting.

This chapter covers the following key points:

— To retain our liveability, we need to think about how we can leverage the forces that will shape our future economies.
— Our current urban growth patterns promote business-as-usual and dilute liveability.
— The benefits of growth are not evenly shared.
— State governments have recognised this and developed some planning responses at a regional scale to attempt to address issues.
— Approaches implemented by state governments are not sufficient to take a broader outlook for coordination across Australia's south-east and deliver the best overall outcome; A new approach to planning is needed.
— Australia's south-east, if conceptualised as a single region, is similar in land size and scale to megaregions around the world which have delivered significant benefits.
— What an AESM might look like, and how it could be developed.

[12]Mercer Index and Global Liveability Ranking
[13]These highest order centres such as Melbourne and Sydney's CBDs play a major service delivery role, including government, health, justice and education services, as well as retail and commercial opportunities.

## To retain our liveability, we need to think about how to leverage the forces that will shape our future economies

For our major cities to remain competitive, we need to attract specialised 'Fourth Industrial Revolution' jobs. Are we ready? In their Melbourne 4.0 paper, Committee for Melbourne highlighted that liveability in our major cities is at risk, and we need to act now to make sure that we provide future generations with choices and opportunities:

*"We cannot assume that our city's success will continue without preparing for 'over the horizon' challenges which are approaching with unprecedented speed"*

(Committee for Melbourne, 2016).

Committee for Melbourne has recognised that in the face of the 'Fourth Industrial Revolution' and unprecedented population growth, liveability and urban optimisation challenges must be dealt with, as well as seeking new opportunities that those forces will also bring.

In this paper, we take an even broader perspective. We consider relationships along Australia's south-east- in particular, Melbourne, Canberra, Sydney and Brisbane and regional cities in that corridor- and imagine these major and second cities as a network that may hold the key to improved liveability and productivity outcomes in the face of significant population growth across the south-east region.

We outline how a variety of actions at differing scales, that interact with urban patterns of cities across Australia's south-east, might best support liveability, economic prosperity, access to jobs, and infrastructure optimisation. We take the concept of liveability to include access to exceptional healthcare and education, sport and recreation services, and an appropriate blend of housing options well connected to community services and jobs[14].

[14]Planning Institute of Australia, Through the lens: The tipping point, 2018, available from URL: <https://www.planning.org.au/documents/item/9431>.

By starting with 'small wins' (for example, an app to access all public transport across the country or more integrated regulatory frameworks), and building to more robust interregional planning and infrastructure projects, we could more actively achieve liveability, productivity and efficiency gains. As outlined above, the key focus is to coordinate our global economic and investment prospectus (i.e. making it easier to invest in Australia's south-east), and improving people's access to amenity, while protecting the liveability and great city functions we already have.

## Our current urban growth patterns promote business-as-usual and are likely to dilute liveability

Due to their high levels of liveability, our south- east Australian cities, especially Melbourne and Sydney, compete for talent on an international scale. Our settlement patterns have supported economic growth and reaped agglomeration benefits. However, we are reaching a tipping point where the effects of highly centralised growth mean those highly connected, well-serviced and accessible parts of our major cities are shrinking, and the costs of growth to our productivity are rising. Our cities' appeal as leading international destinations to live, work and play, is being challenged.

Australian cities are mostly defined by suburban areas clustered around highly productive CBDs, and this pattern of urban development has generated enormous benefits related to the agglomeration and density of people, activities, businesses, as well as the depths of networks, infrastructure and opportunities.

Population growth has underpinned consumer demand, housing construction and, ultimately, economic growth. However, as our cities grow, the benefits of higher productivity associated with agglomeration may be offset by disadvantages: higher house prices, congestion, increased travel times and strain placed on infrastructure.[15] It means people are increasingly squeezed into public transport, spend unreasonable amounts of time in long lines of traffic congestion, and struggle to balance life outside of work around longer and longer commutes.

**TABLE 1: THE CHALLENGES OF GROWING IN OUR CURRENT SETTING**

| Challenges | Today | 2050 |
|---|---|---|
| Population growth | 25 million | ~37 million |
| Housing cost share of disposable income | 17.8% | ~22% |
| Cost of congestion | $17 billion | ~$60 billion |
| Social inequality/exclusion | Focused on urban fringe and regional areas | More widespread outside inner city of major capital |
| Lost productivity | $13 billion | $35 billion |
| Climate vulnerability | Existing urban footprints | Heightened risk on urban fringe of major cities |

Source: SGS Economics and Planning, 2019, based on various sources.

For more on this challenge, refer to Section 1.2 and Chapter 3.

[15]OECD, 2014 in Glacker

## 2.2 Benefits of growth

### The benefits of growth are not evenly shared

The pull of Australia's major cities and their centralised settlement patterns mean wealth and high value businesses are increasingly concentrated in the inner city of major cities. Some regional areas struggle to attract talent, investment and population growth, while some regional cities have reached a critical size and are able to sustain comparable levels of liveability including access to arts, culture, education, employment and hospitality choices.

**The distribution of population and economic growth across Australia is uneven; most of the growth and opportunities concentrate in Australia's largest cities. Today, around 40 percent of Australia's population and 43 percent of gross domestic product (GDP) concentrates in Australia's two largest cities.[16]**

If we include the population of Greater Brisbane then this figure increases to 64 percent. This pattern of growth is forecast to continue; by 2050, the proportion of Australia's population living in the Melbourne-Sydney-Brisbane corridor is expected to increase from 64 to 71 percent.[17]

For further discussion on this section, refer to Section 3.1.

This pattern of urban development has also resulted in strong economic links between our major centralised cities. As one of the busiest air passenger routes in the world, Melbourne and Sydney have strong and complementary economic roles.

The fastest mode for people to travel between Australia's major cities is air transport; travel by car or rail currently takes 2 to 3 times as long. Because of this reliance on air transport for people to move between major cities, it is much harder to incrementally link smaller cities, such as those located between Melbourne and Sydney, into their economic relationship.

Our regional cities do not have the same levels of access, and this is reflected in significantly lower projected growth rates. Some regions and rural areas are struggling to retain and attract viable populations, economic opportunities and the services necessary to support liveability. Many rural areas in Victoria and New South Wales are facing structural challenges, including changes to agriculture and climate change impacts.

Due to the scale of productivity and liveability challenges across Australia's south-east, governments have recognised that greater integration and coordination is required at an interregional level.

For more information on this, refer to Section 4.2 and Section 4.3.

[16] https://www.smh.com.au/business/the-economy/the-growing-clout-of-australia-s-twin-urban-giants-20180728-p4zu4l.html
[17] Projections are based on medium fertility, medium life expectancy, medium overseas migration, medium interstate migration and medium interstate flows.

## State government planning responses recognise the importance of regional coordination

There is a need to redress the efficiency loss across broader regions (including the suburban hinterland around our major cities) through improved governance coordination. State governments across south-eastern Australia are increasingly preparing integrated, regional plans. However, there is still a lack of coordination across state borders, meaning many regional plans share similar objectives, and ultimately compete for similar outcomes in the same markets.

Urban and regional planning in Australia is generally led by state and territory governments and at a local government level. While governments in Australia have historically focused on a few primary cities, state governments are increasingly recognising the importance of regional cooperation.

This is evident in the plans and publications such as the *Greater Sydney Region Plan, ShapingSEQ* (South-east Queensland regional plan) and Special Activation Precincts in regional NSW. *Plan Melbourne 2017-2050* was also designed to fit within a broader regional planning project that divides Victoria into eight areas, each with a Regional Growth Plan.

Federal government decision-making can also influence the growth and shape of places across Australia. Efforts to coordinate or present national urban priorities and policy can be seen in *Our Cities, Our Future, 2011*, and more recently the *Australian Infrastructure Plan, 2016*, and *Smart Cities Plan* with related City Deals, which focus on metropolitan strategic planning and infrastructure.

These are all important planning activities. However, there are limited mechanisms to coordinate planning efforts across state or territory borders in Australia's south-east.

These ideas are discussed further in Section 3.4.

## A new approach is needed

Improved governance coordination can deliver significant savings. Businesses can operate more efficiently across borders, and we can promote our major cities' shared appeal and focus on regional specialisations in the economy of the Fourth Industrial Revolution, rather than competing for the same talent pool, the same businesses, and the same tourists.

**An integrated approach to land use planning, and coordinated legislation between states, is crucial for enhanced productivity across south-eastern Australia**. Improved planning policy and regulation has direct benefits to productivity in cities: good governance can result in immense savings: 'a 10 percent reduction in the cost of delivering infrastructure would save $2.9 billion per year.'[18] To achieve these productivity gains: 'it is essential that governments ensure that proposed projects are subject to benefit-cost evaluations, and that these as well as evaluations of alternative proposals for meeting objectives are available for public scrutiny before decisions are made.'[19]

**Thinking about and planning for region-wide outcomes to address our population, liveability and productivity challenges** would mark a significant transformation, or step-change, in the way we do things today.

Alongside these principles (in bold, above), there must be clear planning objectives focussed on the type of settlement pattern, and the outcomes sought for an enhanced AESM. This will enable the evaluation of projects, and ensure investment and other benefits are directed within the context of the megaregion.

Considering the role, settlements and transport links between the major cities (Melbourne, Canberra, Sydney and Brisbane) and smaller surrounding cities provides an opportunity to identify the best way to connect and integrate these growing places, and to plan for complementary roles for places within Australia's south-east.

Attracting jobs of the Fourth Industrial Revolution[20] also occurs in a range of different ways across cities and regions. For example, the Victorian Government recently developed a new commercial zone specifically encouraging 'enterprise precincts' to emerge in local centres, and both state governments and the Australian Government are encouraging 'innovation precincts' throughout Australia. However, there is no consistent position across governments about the role of major innovation precincts in our cities and regions.

[18]Productivity Commission, 2017, p. 130.
[19]ibid., p. 132.
[20]Jobs of the *Fourth Industrial Revolution* will require complex problem solving, critical thinking, creativity, interpersonal skills and leadership (World Economic Forum, 2020), Available from URL: https://www.weforum.org/about/jobs-and-the-fourth-industrial-revolution

## 2.3 A future-proof regional structure

### How could developing a megaregion future-proof our regional structure and bring opportunities?

In its Melbourne 4.0 Taskforce, Committee for Melbourne's members identified 'Eastern Seaboard collaboration' as a strategic need for Melbourne, to help the city continue to thrive out to 2030 and beyond. One approach, explored in this paper, is to plan for south-eastern Australia and encourage collaboration by encouraging the idea of a 'megaregion.'

Megaregions have been planned and developed in a range of different contexts around the world; they vary in form and characteristics.

South-astern Australia, when conceptualised as a region, is of comparable scale in terms of population and economic output. **The region currently has a population of almost 10 million people, and in 2017-18, the GDP of Australia's south-east was $1.262 trillion (representing 69.6 percent of Australian GDP).**

Learning from international case studies, there is an opportunity to conceptualise, and plan for, Australia's south-east as an *Eastern Seaboard Megaregion*. Planning for a megaregion would enable us to send clear signals about the future of the major cities and smaller regional cities, and could ensure integrated land use and infrastructure decision-making occurs in the context of clear aspirations regarding the future urban settlement of these areas. It would also create opportunities for regional cities between Melbourne, Canberra, Sydney, and Brisbane, to capture some of the productivity benefits generated in the major cities.

More information about the characteristics of some megaregions can be found in Section 4.2.

An important element of considering the region as an integrated whole, and developing a long-term plan for its settlement, is to prepare us for an uncertain future. The current approach relies mainly on the expansion of several very large cities which, as already noted, is likely to result in poor outcomes. If we start planning for the region now, and coordinating investment to support this, future generations are likely to have more choices about how and where they accommodate growth.

Given their scale, megaregions can host a broad range of different economies that complement each other, connecting people to the types of employment they want, and linking supply chains. There is evidence[21] that megaregions can provide benefits from both urbanisation and diverse economic activities. Indeed, Richard Florida argued megaregions are a way to understand economic growth and creation of wealth beyond nation-state borders, as globalisation 'continues to render political borders less relevant in economic terms.'[22]

This is further examined in Chapter 4.

[21]Sassen, 2010 in Glacker
[22]Richard Florida, Tim Gulden and Charlotta Mellaner, *The rise of the megaregion*, 2008.

## What could an Eastern Australian Seaboard Megaregion look like?

There are various options for a megaregion's settlement structure: hub and spoke, better connections with regional centres, or a priority corridor encompassing existing and new towns along the way. In the context of an Eastern Seaboard Megaregion, options include one or a combination of the following:

- Focus on economic and population growth of existing cities and regional centres, improving connections between them, possibly through faster and more frequent rail services.
- Develop new small-medium sized towns (i.e. up to 100,000 people), that support existing large cities and alleviate population growth and dispersal of jobs and services to some extent.
- Create one or two new large cities (i.e. over one million people) at a logical point within the defined megaregion, which may align with a corridor region requiring second-tier jobs and services.

Each of these options has a series of costs, benefits and implementation challenges, but each will decrease travel time, increase connectivity overland and link a diversified workforce. These key components would underpin a successful megaregion across Australia's south-east.

*'Constructing a high-speed eastern seaboard transit link could be a major step forward in the creation of a megaregion, which will effectively alleviate some of the major population challenges that our capital cities experience, stimulate the economy and increase our ability to compete in international markets.'*[23]

## 2.4 Towards Australian Eastern Seaboard Megaregion

To access the potential benefits arising from increased interregional collaboration, our current settlement pattern and governance arrangements are missing some key ingredients. Unlike other countries whose megaregions are connected with significant infrastructure and dotted with several second and third tier cities with populations around 1 million, Australia's south-east has a handful of very large cities (2-5 million) interspersed with disconnected, smaller regional cities and towns. Our major cities are struggling to keep pace with the demands placed on them by booming populations, while our smaller cities struggle to remain competitive, attract or retain higher value, 'major city' activities (and talent) and infrastructure that could diversify their economies. To test these ideas, some small steps are recommended, followed by longer-term, larger interventions with greater potential for value creation, value capture and shared economic returns across the megaregion.

Our settlement pattern across the Eastern Seaboard presents as a handful of major cities with populations from 2 to 5 million people, interspersed with a series of regional cities whose populations range from 40-80,000+ people (Dubbo, Shepparton, Albury-Wodonga) to 250-300,000+ people (Geelong, Newcastle)[24]. Many of these cities lack economic and physical connections between them across a network, and as a result miss out on potential value uplift that could be created by better linking places throughout the region, or across State borders.

[23]Committee for Melbourne
[24]https://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/3218.0

To help Australia's south-east transition from a collection of a few big cities, and a number of much smaller ones with limited connections, to an integrated and connected collection of cities with a more even distribution of population and distinct but integrated economies, this paper suggests a strengthened governance structure is a key first step. This would involve enhancing and strengthening collaboration and planning efforts between states and across municipal borders, to identify where local projects can be packaged to achieve broader benefits, and where adaptation principles can be built into others, to enable coordination into the future.

Some effort to enhance collaboration could start today. However, more collaboration would be needed to truly achieve the level of harmonisation and megaregion planning principles that were referenced earlier in this chapter. Such an approach will ensure the opportunities are realised, and benefits maximised, and large-scale improvements across the megaregion are achieved.

Some early actions to help deliver this could include small policy harmonisations and innovations, such as standardised ticketing to improve connectivity between south-eastern cities. While mechanisms to undertake broader and longer-term coordinated planning and infrastructure prioritisation, to better connect the cities and towns established.

These ideas are explored further in Chapter 5.

The importance of this longer-term framework is noted by Philip Davies (former CEO of Infrastructure Australia) who highlighted that, *'a national settlement plan would focus on how we grow, not how much we grow, and it would allow us to plan beyond political and budgetary cycles.'*[25] *Davies emphasised that 'settlement planning and long-term, integrated state planning would vastly improve our ability to choose and deliver the right projects.'*[26]

[25]Philip Davies, former CEO of Infrastructure Australia, Speech 25 June 2018, Available from URL: <https://www.infrastructureaustralia.gov.au/listing/speech/prioritising-reform>.
[26]ibid.

*A coordinated settlement strategy for the south-east megaregion could enable a spatial approach to problem-solving, resource allocation and infrastructure planning that addresses the significant population growth that will occur in the region in the next 40 years.*

A planning approach that views Australia's south-east as a megaregion could facilitate cooperation and collaboration between tiers of government as well as relevant authorities and stakeholders. It could also articulate a clear position, capabilities/capacity and high-value, regional infrastructure priorities for global partners seeking to invest in the region. A long-term strategy to direct public infrastructure (and private) investment would enable:

- Acknowledgement and enhance engagement with economies beyond eastern state borders
- Exploration of innovative funding models for infrastructure planning
- Opportunities to reshape built environments leveraging investment across the region
- Integration across the region on equity, economic development, climate change and legal considerations, and
- Coordinated approaches to large-scale value capture from major infrastructure investment.

Integrated planning at the megaregion scale would allow governments to consider larger shifts in the Australian economy, likely to affect the whole region (and the whole Australian economy) while enhancing the connection (social, economic, environmental) between places within the region itself. It could also confirm and clarify the role of centres and cities, in the context of the broader trends and changes which affect urban development and economies.

**Overall, the key benefits of closer collaboration would include a boost in economic productivity and innovative capacity; enabling us to better compete in international markets. Other benefits would include population dispersion to relieve congested cities, regional activation, housing affordability, economic growth, job creation, and improved liveability.**

# The region today

In terms of population, Australia is the 55th largest country in the world. It is growing at a faster rate than other developed nations (1.8% per annum compared to the global average of just over 1.5%), and net overseas migration is a large driver of this growth. Within Australia, the population is densifying and urbanising, particularly in fast-growing cities. Some rural and remote areas are facing population decline. Australia's Eastern Seaboard has a handful of highly productive major cities (Melbourne, Sydney and Brisbane), whose qualities attract residents, visitors and workers to them. However, the distance between our major cities and the distance to supply chains across the world is vast.

## 3.1 Growth in major cities

Our historical settlement pattern has generated highly liveable cities.

Population, economic growth, and employment opportunities are becoming increasingly concentrated in Australia's largest cities.

Australia has a population of approximately 25 million, which is on track to double over the next 50 years (see Table 2). Seventy-two percent of Australia's population is in south-eastern Australia (spanning from the Sunshine Coast to Geelong), which also accounts for 70 percent of the Australian economy.

Forty percent of Australia's population and 43 percent of gross domestic product (GDP) is concentrated in Australia's two largest cities.[27]

The populations of Sydney and Melbourne are expected to reach 8 million people each in the next 30 years. South- East Queensland will reach 5 million, while Canberra and surrounds will be nearly 1 million. The population in Greater Melbourne is projected to grow to 9 million by 2056. In Sydney, the population is forecast to grow by 2.7 million from 2011 to 2036 (based on 2016 figures).

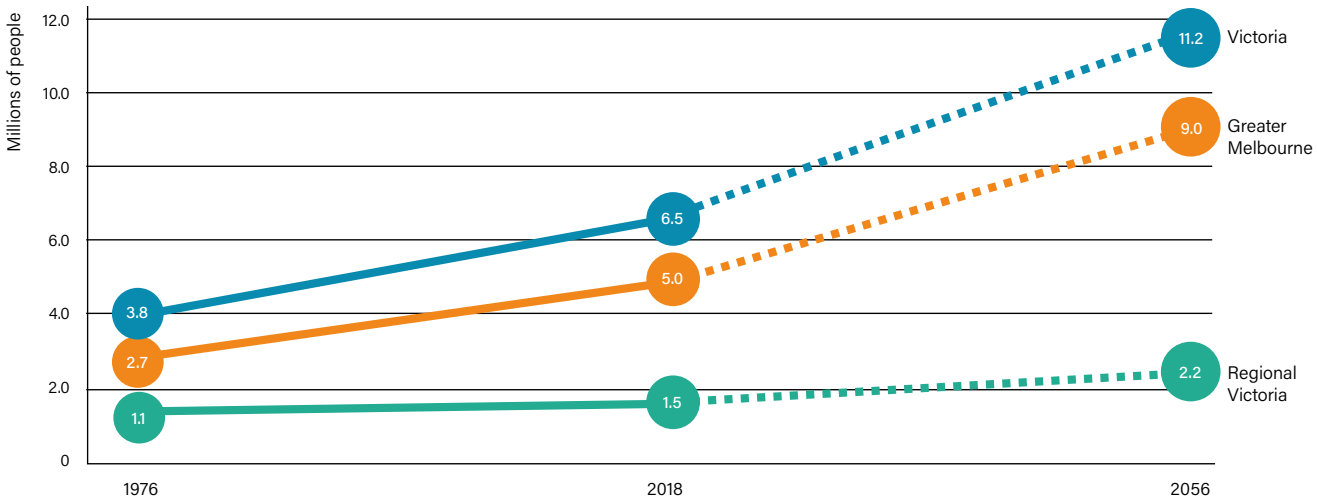
**TABLE 2: SOUTH-EAST AUSTRALIA'S POPULATION TODAY AND IN FUTURE**

| Location | Pop. 2016 | % of State pop 2016. | Est. pop. 2050 | % of State pop 2050 |
|---|---|---|---|---|
| Greater Melbourne | 4,485,211 | 76% | 8,493,534 | 83% |
| Greater Sydney | 4,823,991 | 65% | 8,286,637 | 72% |
| Greater Brisbane | 2,270,800 | 48% | 4,050,986 | 54% |
| South-eastern Australian cities* | 1,580,002 | 64% | 20,831,157 | 71% |

Source: SGS Economics and Planning, based on ABS AUSSTATS, Population projections 2017 to 2066. *Proportion of NSW, Qld and Vic population in SE Australian cities

[27] https://www.smh.com.au/business/the-economy/the-growing-clout-of-australia-s-twin-urban-giants-20180728-p4zu4l.html

FIGURE 2: PAST & PROJECTED POPULATION IN VICTORIA, 1976 TO 2056




Source: Victoria in Future, 2019.

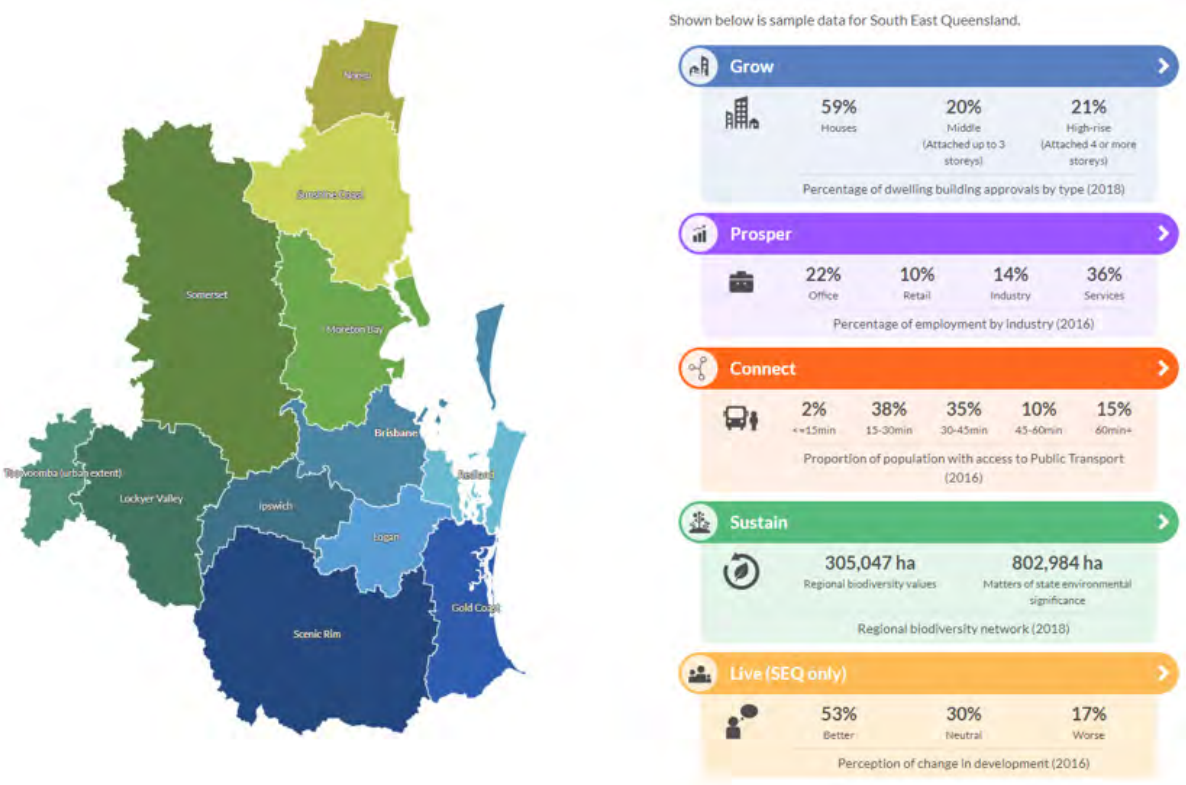
Victoria's population growth is being driven by overseas, and interstate migration, while Melbourne is experiencing the biggest population boom since the post-war era. Plan Melbourne highlights that more housing is needed in locations where infrastructure, jobs, services and public transport are available.

FIGURE 3: FORECAST POPULATION CHANGE IN THE GREATER SYDNEY REGION, 2016 TO 2036


Source: Greater Sydney Region Plan, 2018.

Responding to forecast population growth, the *Greater Sydney Region Plan* highlights that many parts of the city will transform from a suburban, to urban, environment. The plan's vision focuses on protecting important local character, heritage and environmental features, while developing new neighbourhoods and centres to support healthy lifestyles and communities. Urban renewal will be a focus around existing centres.

FIGURE 4: PLAN FOR ACCOMMODATING POPULATION GROWTH IN SOUTH-EAST QUEENSLAND




Source: Department of Infrastructure, Local Government and Planning, ShapingSEQ, 2017. For further information about the SEQ plan: https://dsdmipprd.blob.core.windows.net/general/media/MtM_SEQPreferredFutureComparison.pdf.

ShapingSEQ contemplates how the region will accommodate 5.3 million people. The plan contains a 50-year vision for South-east Queensland (Noosa and the Sunshine Coast to Gold Coast including Somerset, Toowoomba's urban area, the Lockyer Valley and Scenic Rim). The plan contemplates regional relationships within Queensland and northern NSW, particularly for food security and tourism relationships. The plan and vision have a strong regional focus, informed by megatrends around employment and climate resilience.

While this approach to planning considers regional solutions to managing population growth across the greater urban area, it might not be the best solution. Our current approach to planning means each regional plan is prepared in isolation, with limited consideration given to the context beyond. These plans focus on outcomes that are best for each region; not outcomes that are best for the whole.

Further discussion about this idea is presented in Chapter 4.

## 3.2 Concentrated economic activity

To retain our liveability, we need to think about how to leverage the forces that will shape our future economies.

Table 3 presents the current and historic regional contribution to GDP growth.

While Sydney has traditionally been a significant driver of Australia's economy, accounting for 29.8 percent of Australia's economic growth in the 1990s, this title was ceded to Melbourne in the 2000s (19.1 percent vs 17.1 percent)[28]. The Harbour City's economy has returned to its preeminent position in the last seven years, accounting for 25.9 percent of growth since 2009-10, and once again ceding to Melbourne (27.7 percent vs 25.1 percent) in the most recent year.

**Table 2 illustrates the increasing importance of the major cities – together Melbourne, Sydney and Brisbane represent over half of Australia's GDP growth since 1989-90.**

Table 4 presents the value of GDP, annual growth rate, the average annual growth rate for the last decade and the share of national GDP for each region. It shows the scale of GDP generated in Sydney and Melbourne, compared to Brisbane and regional areas of the eastern states.

Our largest cities benefit from the agglomeration and density of different activities- social and business, as well as the depths of networks and infrastructure and opportunities.

TABLE 3: CONTRIBUTION TO AUSTRALIA'S GDP GROWTH – VOLUME MEASURE

| Region | 1990s | 2000s | 2010s | Most recent year | 1989-90 2018-19 |
|---|---|---|---|---|---|
| Melbourne | 13.9% | 19.1% | 23.8% | 39.8% | 20.1% |
| Regional VIC | 9.2% | 2.6% | 1.3% | -3.0% | 2.8% |
| Sydney | 31.7% | 16.8% | 26.3% | 32.9% | 23.1% |
| Regional NSW | 9.2% | 5.7% | 5.2% | -1.2% | 6.2% |
| Brisbane | 9.7% | 12.6% | 9.0% | 12.7% | 10.6% |
| Regional QLD | 9.5% | 13.3% | 8.8% | 0.8% | 11.1% |

Source: *Economic Performance of Australia's Cities and Regions*, SGS Economics and Planning, December 2018.

TABLE 4: GROSS DOMESTIC PRODUCT VOLUME MEASURE, 2018-19

| Region | GDP $ Million | 2018-19 Growth | Average Annual Growth 2008-09 to 2018-19 | Share of GDP |
|---|---|---|---|---|
| Melbourne | $ 369,439 | 4.0% | 3.0% | 19.3% |
| Regional VIC | $ 76,640 | -1.4% | 0.8% | 4.1% |
| Sydney | $ 461,440 | 2.6% | 2.7% | 24.1% |
| Regional NSW | $ 152,969 | -0.3% | 1.7% | 8.0% |
| Brisbane | $ 177,006 | 2.6% | 2.5% | 9.3% |
| Regional QLD | $ 180,038 | 0.1% | 2.1% | 9.7% |

Source: *Economic Performance of Australia's Cities and Regions*, SGS Economics and Planning, December 2018.

[28]Source: *Economic Performance of Australia's Cities and Regions*, SGS Economics and Planning, December 2018.

## 3.3 Challenges from growth

Our current urban growth patterns promote business-as-usual and are likely to dilute liveability.

Our settlement pattern, combined with projected growth, will create some challenges. Those challenges are accompanied by significant costs both to our cities' liveability and economic potential.

To take advantage of this potential, we need to understand and appreciate market forces; and where possible, direct them to work towards more productive outcomes. As global economies diversify and embrace jobs of the Fourth Industrial Revolution, there is a risk that the distance between each of our major east coast cities, and our global partners will lead to lower productivity as cities compete for the same new economy jobs. Rather than just competing, our cities need to be better-integrated, and function more as a collective, to deliver the best possible outcomes. This will help our growing population reap the benefits of a network of complementary economies.

### Concentrated population growth

Melbourne and Sydney are on track to become megacities (cities of over 10 million people). While megacities provide benefits, there are also challenges. Despite its allure, megacity status often brings with it poor global liveability assessments.[29] Notably, the average population of the top ten most liveable cities is 1.7 million people. Global Livability Indexes, such as the Economist Intelligence Unit's measure liveability by a place's stability, access to and quality of healthcare and education, culture and environment, and infrastructure provision.

As our cities grow, we see that the benefits of higher productivity may be offset by higher house prices, congestion and increased travel times, the strain placed on infrastructure, and pollution.[30] Some parts of Greater Melbourne (e.g. the City of Melton, City of Wyndham) will have an average annual growth rate between 3 and 5 percent to 2036.[31]

According to the Rental Affordability Index (RAI), Sydney is a critically unaffordable place to live, especially for lower income households. The average rental household in Greater Sydney spends 27 percent on rent, while in some places this is as high as 40 percent.[32] In Greater Melbourne, the median household spends 24 percent of its total income on housing, while in some suburbs the rent can be as high as 38 percent, as a share of median household income.[33]

The RAI found that nationwide, the proportion of households renting is on the rise, having increased from 25 to 30 percent from 1995 to 201831. Housing costs for renters have also risen, and investors have pushed out would-be homeowners, so more households with middle to higher incomes are renting for longer. This impacts lower income renters, by keeping rents higher. At present, it is difficult for a household with an annual income of $100,000 to access rental housing in the inner and middle suburbs of Melbourne and Sydney; as shown in the maps on the following page.

[29]The Economist. "Liveability Ranking, The Economist Intelligence Unit's World's Most Liveable Cities Index." Assessed on 3/12/2013. http://www.economist.com/node/21528162 in Weller, R., and Bolleter, J. 2013, Made in Australia: The Future of Australian Cities. Scenario 03: Rethinking Infrastructure.
[30](OECD, 2014 in Glacker)
[31]SGS Economics and Planning, Rental Affordability Index, November 2018 release. Prepared in partnership with the Brotherhood of St Laurence, Community Sector Banking, and National Shelter.
[32]https://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/3218.0
[33]Ibid.

FIGURE 5: RENTAL AFFORDABILITY IN INNER AND MIDDLE SYDNEY, JUNE QUARTER 2019.

Source: SGS Economics and Planning, 2019

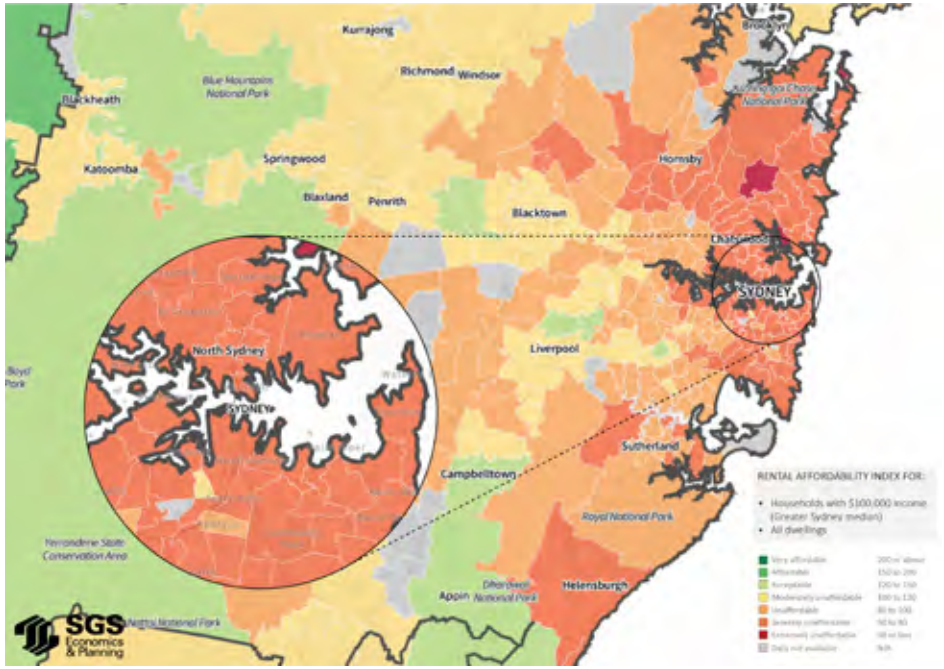
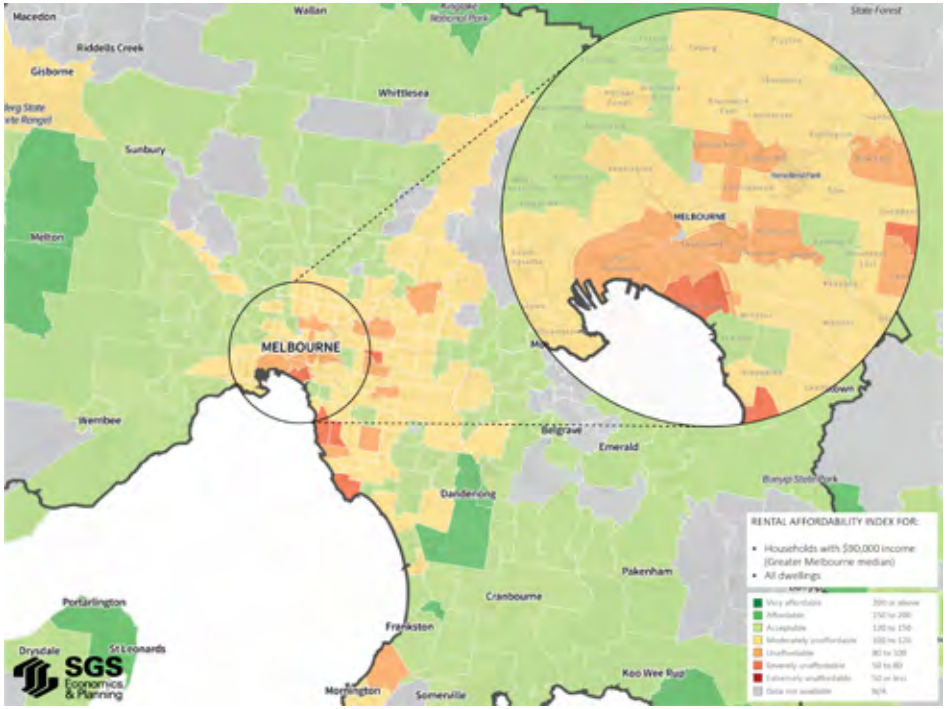



FIGURE 6: RENTAL AFFORDABILITY IN INNER AND MIDDLE MELBOURNE, JUNE QUARTER 2019.

Source: SGS Economics and Planning, 2019.



In Western Sydney, there is a net outflow of 200,000 people leaving the region each day for work; this is forecast to grow to 340,000 by 2041.[35] Fringe populations in Melbourne and Sydney suffer from housing-led urban development and a lag in health (and other essential services), education and public transport infrastructure.[36] In future, they are also on track to become the area's most susceptible to the effects of climate change such as water scarcity and hotter, drier conditions.[37]

The concentration of so many people in one place, combined with more people moving to fringe and growth areas to access housing affordability, results in crowded public transport and on-road gridlock. The total Australian congestion cost was estimated at $18.9 billion in 2015, growing to almost $40 billion by 2031.[37] This rising congestion also feeds into rising social inequality, with inner city areas having access to a range of jobs and services and fringe areas having poorer access to jobs and services.

## Uneven regional development

The benefits of growth in major cities are not evenly shared.

While strong growth is occurring in Brisbane, Sydney and Melbourne, many regional areas face with stagnant or declining populations. Some regions and rural areas are struggling to retain and attract viable populations, economic opportunities and the services necessary to support liveability.

Many rural areas in Victoria and New South Wales are facing structural challenges, including changes to agriculture resulting from climate change impacts. Climate change already affects agricultural output as a percentage of GDP. According to Guy Debelle (Deputy Governor of the Reserve Bank of Australia), 'the current drought has already reduced farm output by around 6 percent and total GDP by about 0.15 percent.'[38] This change is significant, as many regional cities have important connections to their rural hinterlands, acting as service centres (and historically emerging to serve surrounding agricultural lands). This means a new economic growth driver will need to be found for these communities.

Continued housing expansion in some regional cities (such as Geelong) and our cities' growth areas (western Sydney, western and northern Melbourne, for example) often occur in locations that are much more susceptible to these water shortages than elsewhere.

Even assuming that rainfall returns towards average, the drought will continue to weigh on aggregate GDP during 2019.[39] According to Debelle the effects of climate change on the economy are spreading more widely than ever before:

*Agriculture is the prism through which we have historically thought about the effect of climate on the economy. Today, climate change presents significant risks and opportunities for a broader part of the economy than agriculture.*[40]

[34]Deloitte, Shaping Future Cities: Designing Western Sydney, 2015.
[35]Infrastructure Australia, An Assessment of Australia's Future Infrastructure Needs..., June 2019.
[36]https://www.climatechangeinaustralia.gov.au/en/climate-campus/australian-climate-change/australian-trends/
[37]Infrastructure Australia, An Assessment of Australia's Future Infrastructure Needs..., p. 22.
[38]Guy Debelle, Climate change and the economy, Speech made to a public forum hosted by the Centre for Policy Development, March 2019.
[39]Guy Debelle, Climate change and the economy, Speech made to a public forum hosted by the Centre for Policy Development, March 2019.
[40]Ibid.

**The national cost of damage from climate change is quantified as $584 billion in 2030; and $762 billion in 2050; and more than $5 trillion cumulative damages from now until 2100.[41] Conversely, the national costs of effective emissions reduction – based on a carbon price or renewables target – are estimated at $35.5 billion from 2019 to 2030, or 0.14% of cumulative GDP; a negligible impact.[42]**

*Society can have already overgrown cities getting bigger and bigger…or it can have regional planning.[43]*

The magnetic pull from major cities is driven, in part, by the diversity of jobs on offer. Regional cities struggle to achieve economies of scale, which might entice higher value and more innovative jobs to the area.

There have been efforts to address this, including the Federal Government's City Deals program. For example, there has been some success in attracting professional services firms to Launceston through the early roll-out of the NBN, which enabled (for example) architecture and design practices to locate there, taking advantage of cheaper rents and high upload-download speeds to share their work.

However, the relocation of the Transport Accident Commission from Melbourne to Geelong resulted in high resignation rates and loss of people in key roles. Companies also report difficulty retaining talent in smaller regional cities, as such employees are attracted to more interesting or complex roles in head offices, typically located in Sydney or Melbourne.

For emerging talent, commencing a role in a regional area may involve a natural ceiling, where a company's headquarters and diverse career choices are contained within their headquarters – typically located in a major city. Therefore, despite a desire of many regionally based employees to remain employed in the region, talented people are drawn to greater opportunity, employment and housing choice in the major cities.

This is a challenge for both regional liveability and productivity, where there is potential for continued lopsided prosperity as a disproportionate share of economic opportunity shifts towards cities while people's housing and employment choices in regional cities become even more stratified.

[41]University of Melbourne with SGS Economics & Planning, Australia's clean economy future: costs and benefits, June 2019.
[42]Ibid.
[43]Hall, P. *Cities of Tomorrow*. 3rd Edition, Carlton, Victoria: Blackwell Publishing, 2002:16

## 3.4 Current policy limitations

State governments have recognised that the benefits of growth in major cities are not evenly shared.

National urban settlement policy and planning
At present, there is no overarching approach which sets out our aspirations and objectives for how Australia's major cities should evolve to complement each other in future, and to guide infrastructure and other investment to achieve these objectives.

This research suggests greater action and a more coordinated planning effort (that is, across state and territory lines) is needed, to prevent the negative externalities around population growth from compounding. Australia's major south-eastern cities are heading towards megacity status: but could they cope with that? The costs outlined in the sections above suggest not.

### Metropolitan planning efforts

State governments across Australia's south-east have increasingly taken a regional approach to planning, as shown below. Plan Melbourne, a Metropolis of Three Cities and the ShapingSEQ all acknowledge the scale of forecast growth.

These plans acknowledge what impact such large-scale population growth will have on the liveability, affordability and productivity of our major cities if they continue on their current trajectories. However, at present, there is no plan that can contemplate the overall impact this forecast growth will have across south-east Australia.

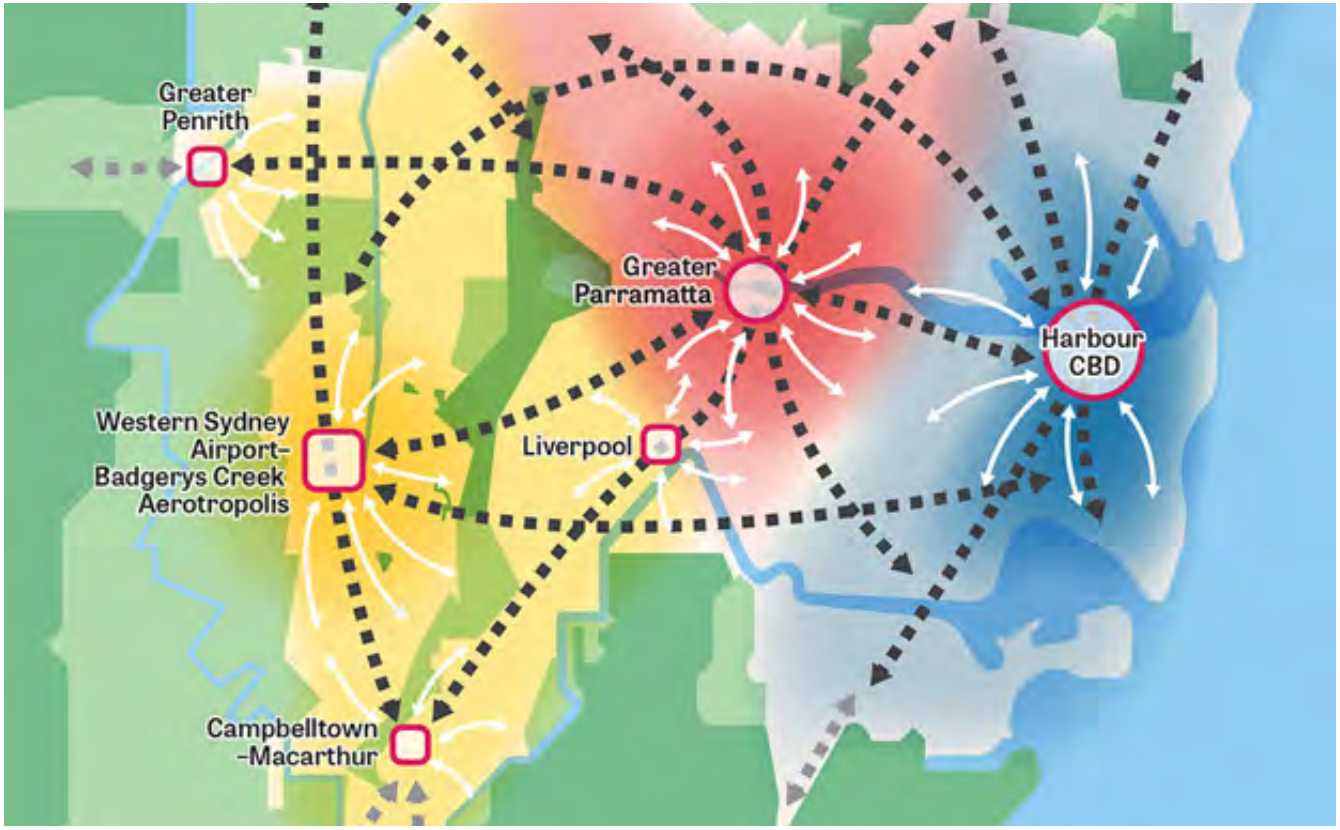
Our current planning efforts for major cities and their urban hinterland contemplates an improved future but it does not suggest a step change or transformation. Most strategies lead to ongoing management of growth in situ (Plan Melbourne advocates for 70 percent growth in established areas, with 30 percent in new release areas), supported by marginally improved infrastructure. Furthermore, this approach precludes us from considering alternative futures as it progresses along a path that follows our current planning context.

In Sydney, the NSW Government's policy directs growth towards Western Sydney, and in recent years significant development has occurred (and will continue) around Parramatta. Over the next 40 years, almost half of the forecast population growth in Sydney will live west of Parramatta.

In both Plan *Melbourne and the Greater Sydney Region Plan*, the aspiration is for residents to live closer to jobs, education and health facilities, and places with greater liveability, through the development of several major nodes or hubs within the city.

In Sydney, this takes the form of a metropolis of three cities, anchored by the Harbour CBD, Greater Parramatta, and the Western Sydney Aerotropolis. With the exception of the impact of the new airport, the current strategic thinking for Sydney is very much in line with the 1968 Sydney Region Outline Plan.

FIGURE 7: *A METROPOLIS OF THREE CITIES*



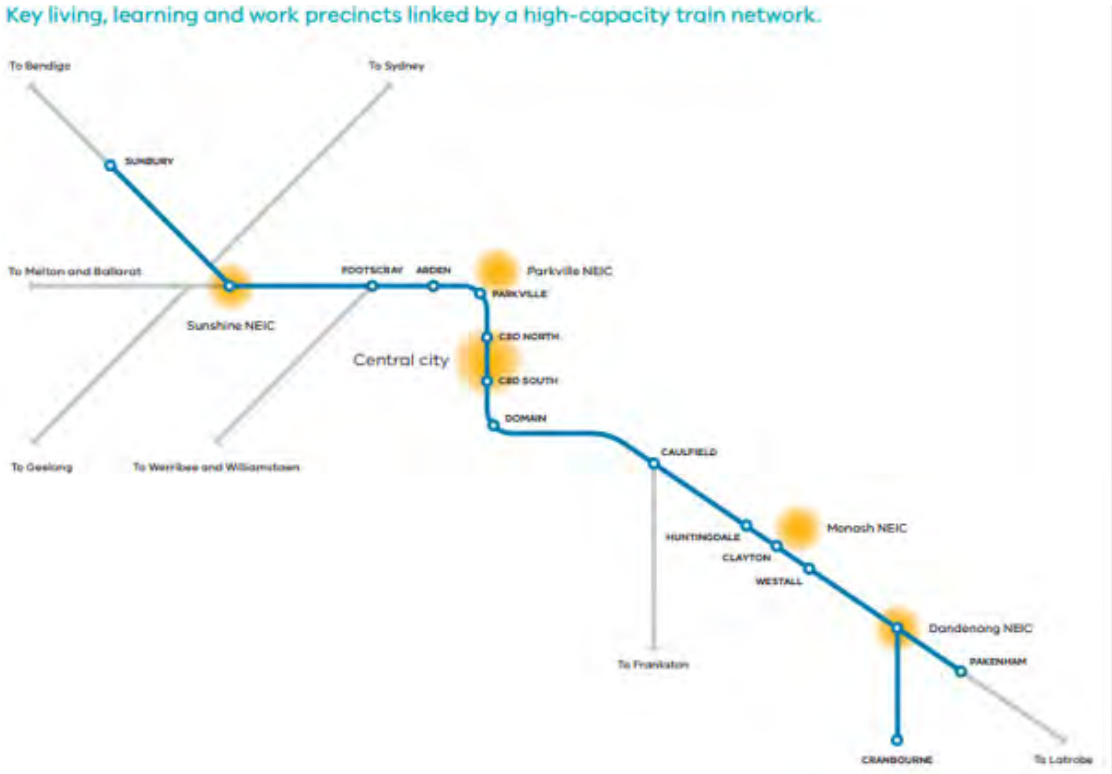

Source: Greater Sydney Commission, *Greater Sydney Region Plan*: A metropolis of three cities, 2018.

'The Greater Sydney Region Plan, *A Metropolis of Three Cities* is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. The vision brings new thinking to land use and transport patterns to boost Greater Sydney's liveability, productivity and sustainability by spreading the benefits of growth.'

In Plan Melbourne, seven National Employment and Innovation Clusters are identified as places to link businesses and institutions, with excellent transport links and potential to accommodate significant future growth in jobs and, some instances, housing. Metropolitan Activity Centres complement these clusters providing a diverse range of jobs, activities and housing. They also play a major service delivery role, including government, health, justice and education services, as well as retail and commercial opportunities. The Metro Tunnel will help to improve linkages between a number of these precincts, and the Suburban Rail Loop project proposes a similar approach of orbital links between key hubs (see Figure 8).

Plan Melbourne specifies that 30 percent of housing growth in Melbourne will be directed into the new growth areas, and planning policies also actively support infill development ('densification') in existing urban areas (the remaining 70 percent).

FIGURE 8: PLAN FOR MELBOURNE'S HIGH-CAPACITY TRAIN NETWORK




Source: Department of Environment, Land, Water and Planning, *Plan Melbourne*, 2017.

This approach of focussing activity around suburban centres, to complement the primacy of the CBD, has been a longstanding policy focus in metropolitan planning. It is generally rationalised as an initiative which will help address some of the dis-economies of scale that emerge in larger cities, including limited access to employment, housing affordability concerns and transport congestion.

While strategies like Plan Melbourne and a Metropolis of Three Cities are important, their focus is on local metropolitan areas. As highlighted above, this doesn't represent a step-change in thinking. Furthermore, the settlement pattern and major hubs identified in Plan Melbourne, have not changed significantly since the 1954 plan, which identified Dandenong, Footscray and Moorabbin (which adjoins the Monash NEIC) as major activity centres.[44] Done in isolation, these plans do not consider how the economies of cities throughout south-eastern Australia could be complementary; overlooking the benefits that could arise from a shared vision across borders.

> 'Melbourne has the opportunity to position itself as one of the world's foremost new knowledge economies, powering the next generation of productivity and economic growth in Australia. To achieve that ambition, Melbourne must develop a series of interconnected learning, working and living precincts across the city.'[45]

[44]Department of Planning and Community Development [Vic.], *Managing Melbourne: Review of Melbourne Metropolitan Strategic Thinking*, April 2012.
[45]Department of Environment, Land, Water and Planning, *Plan Melbourne*, 2017.

## Regional areas

The NSW Government has assisted local councils in developing Regional Economic Development Strategies (REDS) based on the concept of a Functional Economic Region, which usually incorporates more than one local government area. The REDS articulate a long-term economic vision and describe the key priorities and associated enablers that are required to deliver the vision so they can be used to inform NSW Government investment decisions.

However, the REDS are local government documents and ownership and control of their development will rest with participating councils and hence do not represent a coordinated strategy for regional development.

In addition, the NSW Government has started work on a fast rail network in the next term of government, linking regional centres to each other and to Sydney, reducing travel times across the State.

Victoria is also making significant investments in the rail network in Regional Victoria. There is a $1.75 billion Regional Rail Revival program which is planning to upgrade every regional passenger train line across the state. Furthermore, the State Government has entered into Regional Partnerships with local communities across regional Victoria. These partnerships are based on engagement with their local communities to identify priorities for their regions and to develop solutions to local problems. While these Regional Partnerships provide advice directly to the Victorian Government about regional priorities, they do not represent a coordinated strategy for regional development.

The Commonwealth has commenced a program of Regional Deals, which aims to bring together all levels of government. Regional Deals support 'a place-based approach' by putting community priorities at the centre of planning and service delivery. Of the three Regional Deals only one (Albury-Wodonga) occurs across borders.

Despite initiatives to consider local improvements to liveability, these projects show that planning across Australia's south-east remains confined to metropolitan and regional areas within state boundaries. There is limited consideration about how major cities complement each other, and little thought given to how we can work together to address the issues faced by the region. Without a broader integrated strategy, cities will continue down this particular path, limiting future choices. That is, priorities set at a local or regional level only can be achieved, while for some significant, transformational infrastructure projects a greater level of federal advocacy and investment may be needed.

This regional approach means we cannot see what game-changing projects there could be across a larger area as we are limited to the regions where our plan boundaries end. Indeed, some investment may have the potential to benefit more than 70 percent of the future population of Victoria, NSW, ACT and Queensland. From another perspective, this also means it is difficult to articulate a coherent list of infrastructure strategies to third party investors. If each region has a number one priority, who has the jurisdiction to identify the absolute priority? Furthermore, this approach limits us to the horizon of current state government planning processes, making it difficult to see a world beyond 2050. This prevents us from imagining (working towards, promoting and selling) how Australia could be if a much longer-term, staged vision could be achieved.


## ‘The Agony of Break of Gauge’

The railway line was constructed from Sydney to Albury (1881), and Melbourne to Albury (1883).
Australia’s settlements were largely colonies, and a centralised governance role (formerly the Colonial Secretary and soon to be the Federal Government) was not in place.

When the two rail projects met, different gauges had been used. This forced all passengers to change trains at Albury; a condition which prevailed for the next 80 years.

Across Australia, more than 22 different rail gauges were in use, and today five gauges remain. In many cases, these are the legacy of private projects, or a lack of governance arrangements that enabled coordinated efforts to achieve a common gauge and prevent multiple tickets and changeover points along the way.

This infamous mismatch shows the need to future-proof our projects, to create a vision beyond the local context, and to get the details right to enable future adaptation.

Sources:
https://www.nla.gov.au/unbound/the-agony-of-break-of-gauge
http://www.australiaforeveryone.com.au/railway-guages.html
https://www.infrastructure.gov.au/rail/trains/history.aspx

## The costs of a lack of interregional coordination and planning

As Australia, and particularly the south-east, faces changes to housing affordability, mobility and the way we work, improving the connectivity and mutual functioning of our cities and towns is becoming increasingly pertinent to their long-term prosperity. Across governments as well as important organisations like Infrastructure Australia and the Productivity Commission, there is a growing call for stronger coordination of policy and territorial planning beyond our main cities.

Each state or territory has its own planning and regulatory frameworks, meaning businesses hoping to operate interstate face challenges in navigating multiple complex systems. This division also makes attracting international investment more difficult. Policies and regulations are named differently in different places, and there is little coordination around communicating the capabilities and capacity of important investment hubs (like our innovation precincts or national infrastructure priority projects) to a global investment audience. This, compounded by Australia's location far away from other global centres of business (namely, the US, EU and Asia), means our opportunity cost from each major city seeking foreign investment to leverage local liveability outcomes is very high.

This chapter has examined the costs of continuing to direct population growth into our major cities. While it reduces the liveability of these places, it also draws talent, diversity and choice away from other important regional cities; limiting their potential for growth and economic diversification.

As outlined throughout this chapter, the cost of channelling jobs into our major cities is significant such that state and territory governments are taking a regional approach to planning and project funding. Such plans consider how liveability might be maintained, and productivity enhanced, in the face of multiple factors like rising house prices (meaning people live further from the city, contribute to and suffer from congestion costs, and are more at risk from climate and financial vulnerability).

### Recognition of interstate qualifications

Despite a national Australian Qualifications Framework (AQF), many forms of education are governed and recognised by one state or territory. This is because the state or territory government is usually responsible for administering education.

Like many industries, tradespeople around Australia are often certified to work in the state/territory where their certificate was achieved. This is based on the way Vocational Education and Training (VET) are governed. While there is a national standard about registering education providers, Victoria and Western Australia continue to regulate their own VET providers.

Anecdotally, this has been a challenge with recent bushfire recovery initiatives, where some volunteer tradies have had difficulty working intertstate to help people recover from the 2019-2020 summer bushfire season.

Source:
Australian Qualifications Framework: https://www.aqf.edu.au/sites/aqf/files/aqf-2nd-edition-january-2013.pdf
Productivity Commission, Vocational Education and Training Review: https://webarchive.nla.gov.au/awa/20110410034958/http://www.pc.gov.au/__data/assets/pdf_file/0016/103813/vocational-education-training-draft.pdf

**Planning at this scale does not enable us to identify the many benefits of interregional collaboration. It is preventing us from undertaking higher order, transformational projects, or planning for life beyond 2050.**

**In summary:**

- **The cumulative importance of the major cities Melbourne, Sydney and Brisbane represent over half of Australia's GDP growth since 1989-90.**
- **The majority of growth, and opportunities, are concentrated in Australia's largest cities; today, around 40 percent of Australia's population and 43 percent of gross domestic product (GDP) is concentrated in Australia's two largest cities.**
- **Congestion could cost the Australian economy up to almost $40 billion by 2031, which will have an enormous impact in the future if not addressed.**
- **The national cost of damage from climate change is quantified as $584 billion in 2030, $762 billion in 2050 and more than $5 trillion of cumulative damages from now until 2100.[46]**
- **The national costs of effective emissions reduction – based on a carbon price or renewables target – are estimated at $35.5 billion from 2019 to 2030, or 0.14% of cumulative GDP; a far smaller impact when viewed through this lens.[47]**
- **'Better functioning towns and cities would deliver a $29 billion increase in GDP over the long-term.'[48]**

**The fundamental challenge with this lack of broader and longer-term vision is that the opportunity cost of doing things differently is not even considered; so wedded are we to our current path.**

[46]University of Melbourne with SGS Economics & Planning, Australia's clean economy future: costs and benefits, June 2019.
[47]Ibid.
[48]The Productivity Commission, Shifting the dial: 5-year productivity review, 2017, Available from URL: <https://www.pc.gov.au/inquiries/completed/productivity-review/report/productivity-review.pdf>.

# A new approach to planning

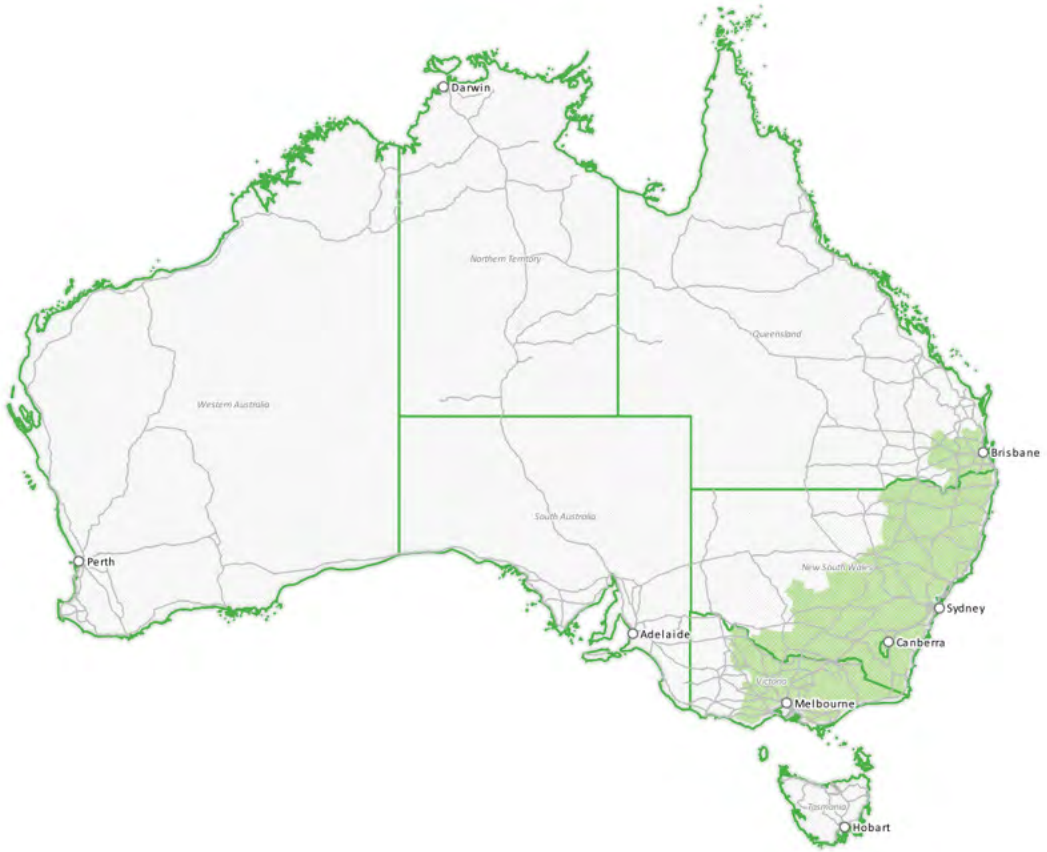
One approach to mitigating the effects of concentrated growth in the major cities is to consider the future of the broader area as an integrated region, and plan in a more coordinated way. This could result in a Megaregion.

## 4.1 The area connecting the major cities

Australia's south-east, if conceptualised as a single region, is similar in size and scale to megaregions around the world.

The region shown in the map below has an area of around 627,000 square kilometres. It covers around eight percent of Australia's land mass; but by 2050, 58 percent of Australia's population will live within this region. Half (49 percent) our population currently lives within major cities (Greater Melbourne, Sydney, the ACT or Brisbane) in the region.

FIGURE 9: SOUTH-EASTERN AUSTRALIA CONTEXT




Source: SGS Economics and Planning, 2019.

The area illustrated in Figure 10 covers regional and major cities from the Sunshine Coast north of Brisbane to Greater Geelong and inland. It includes Melbourne, Sydney and Brisbane, as well as the major regional cities of Toowoomba, Dubbo, Newcastle, Wollongong, Bathurst, Albury-Wodonga, Shepparton, Bendigo, Ballarat and Geelong.

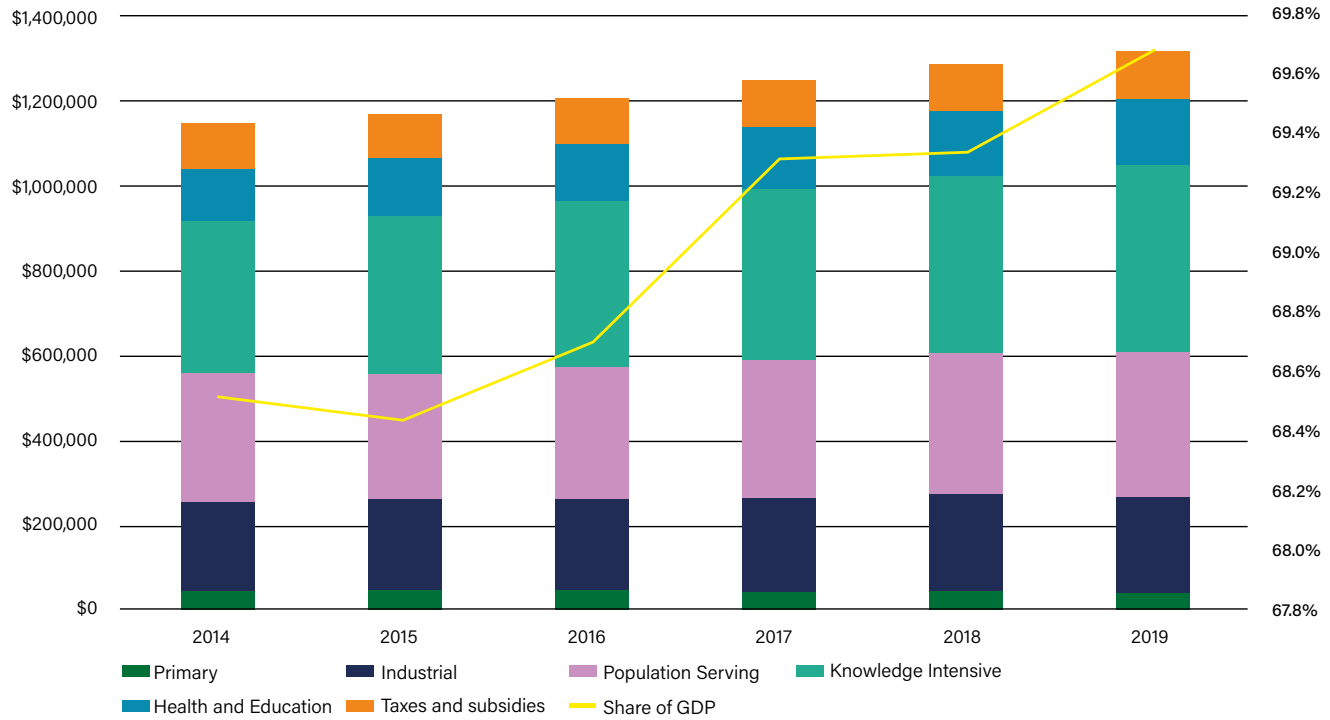
FIGURE 10: SOUTH-EASTERN AUSTRALIA


Source: SGS Economics and Planning, 2019.

Figure 11 illustrates this area's contribution to Australian GDP. In 2017-18, the GDP of Australia's south-east was $1.262 trillion, representing 69.6 percent of Australian GDP. 32.5 percent of that GDP is generated by knowledge-intensive industries[49], which are primarily located in the inner parts of the major cities. Population serving[50] generates 26.0 percent, followed by industrial[51] (17.5 percent), and health and education (11.6 percent), and primary industries (agriculture and mining) makes up 3.5 percent.

Given the economic contribution and population scale (comparable to other global megaregions – see Table 5) of Australia's south-east, coordinated planning may offer several benefits that clearly articulate a marketable vision for the megaregion, accompanied by clear and transformational infrastructure priorities. Expressing a shared vision for these cities, as a megaregion, would enable projects to be packaged, elevating our investment prospectus beyond smaller short-term and localised actions.

FIGURE 11: GDP OF SOUTH-EASTERN AUSTRALIA




Source: SGS Economics and Planning, 2019.

[49]Information Media & Telecommunications, Financial & Insurance Services, Rental, Hiring & Real Estate Services, Professional, Scientific & Technical Services, Administrative & Support Services and Public Administration & Safety.
[50]Construction, Retail Trade, Accommodation & Food Services, Arts & Recreation Services, Other Services and Ownership of dwellings.
[51]Manufacturing, Electricity, Gas, Water & Waste, Wholesale Trade and Transport, Postal & Warehousing.

This section explores how other megaregions across the world have achieved significant economic benefits as a result of enhanced coordination, supported by infrastructure.

It outlines international case studies, demonstrating approaches that could be used for an Australian megaregion. Megaregions enable the distribution of a broader range of economic activities across a network of neighbouring cities than any one metropolis could hope to encompass. This allows firms located in a megaregion to capture a larger market share than in any individual city.

Megaregions disproportionately create and contribute to national and global GDP, due to the benefits that derive from connectivity, agglomeration and markets. There are 40 large megaregions in the world[52] which contribute two thirds of global economic output, 90 percent of global innovation and contain 18 percent of the world's population.[53]

TABLE 5: MEGAREGIONS AROUND THE WORLD

| Megaregion zone | No. of regions | Geography | No. of cities | Megaregion Population | Economic output |
|---|---|---|---|---|---|
| **Europe** | 6 | Clusters and corridors, many cross-country borders | 10-50 each | 10 million to 130 million people | Up to $1.2 trillion |
| **USA** | 10 | Clusters and corridors | Around 4-6 in the smaller megaregions, to 50+ | 5.5 million to 55+ million people | $100 billion to $3.75 trillion GDP |
| **Japan** (Greater Tokyo, Keihanshin) | 2 | Greater Tokyo, and the Osaka-Kyoto-Kobe corridor | 18+ (Taiheiyō belt contains both megaregions) | 19-38 million people | $953 million to $2 trillion GDP |
| **China** | 10+ (some emerging) | Clusters and corridors | 50+; Pearl River Delta contains around 12 cities | 57 to 120 million people | From $300 billion to more than $2,500 billion |

[52]Richard Florida (2007, 2019)
[53]Florida, R., Gulden, T., Mellander, C., The Rise of the Megaregion, 2007. Available from URL: <https://www.creativeclass.com/rfcgdb/articles/Florida,%20Gulden,%20Mellander_Megaregions.pdf>. See also, Florida, R., The real powerhouses that drive the world's economy, 2019. Available from URL: <https://www.citylab.com/life/2019/02/global-megaregions-economic-powerhouse-megalopolis/583729/>.

Megaregions can host a broad range of different agglomeration economies that may complement each other. There is evidence[54] that megaregions can provide benefits beyond those offered from urbanisation alone when they enable complex interactions of diverse economic components. However, these benefits require sophisticated coordination.

The development of a megaregion requires the economic and cultural dynamism of large cities, but it also relies on the constellations of smaller cities and towns.

High connectivity can enable cities (particularly smaller ones) to 'borrow' agglomeration effects from neighbouring cities. This connectivity can reduce the need for a city to achieve a specific population size, level and diversity of business maturity, and so on. Excellent connectivity across a region can deliver the following benefits:

- more diversified, less prone to downturns, more robust businesses have access to more customers, partners and suppliers
- workers gain wide range of job opportunities
- residents gain access to more amenity and recreation, and
- a deeper housing market, increasing housing choice at a range of prices.

Infrastructure is necessary for creating and strengthening social and economic ties between people across places. Transport infrastructure to move goods and labour is an important factor for supporting linkages and facilitate functional integration between regions. High-speed trains are often discussed as a potential solution to cover greater distances within a megaregion. International evidence indicates that cities that have greater accessibility to new high-speed rail stations along a line are likely to benefit more.

[54]Sassen, 2010 in Glacker

FIGURE 12: US MEGAREGIONS

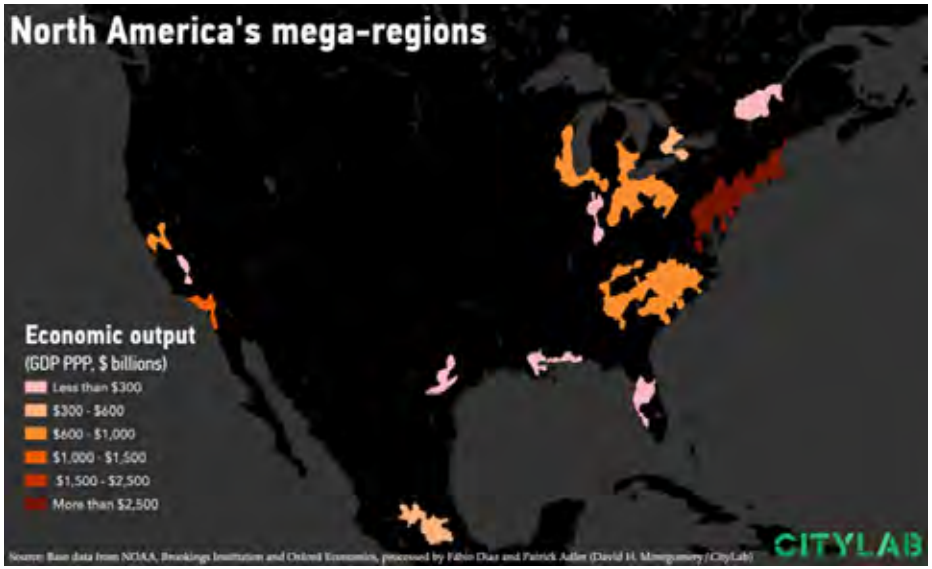



FIGURE 13: MEGAREGIONS OF EUROPE, NORTH AFRICA AND WEST ASIA

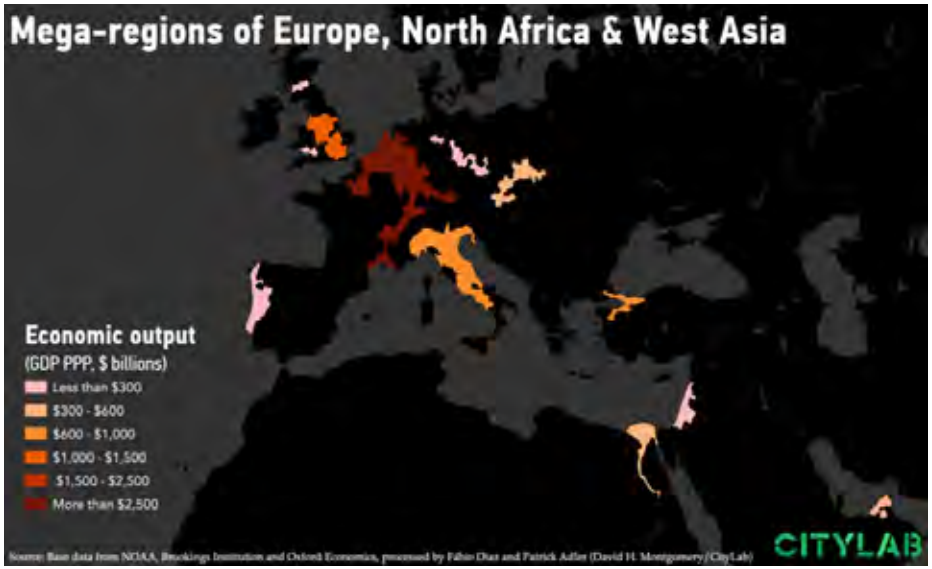
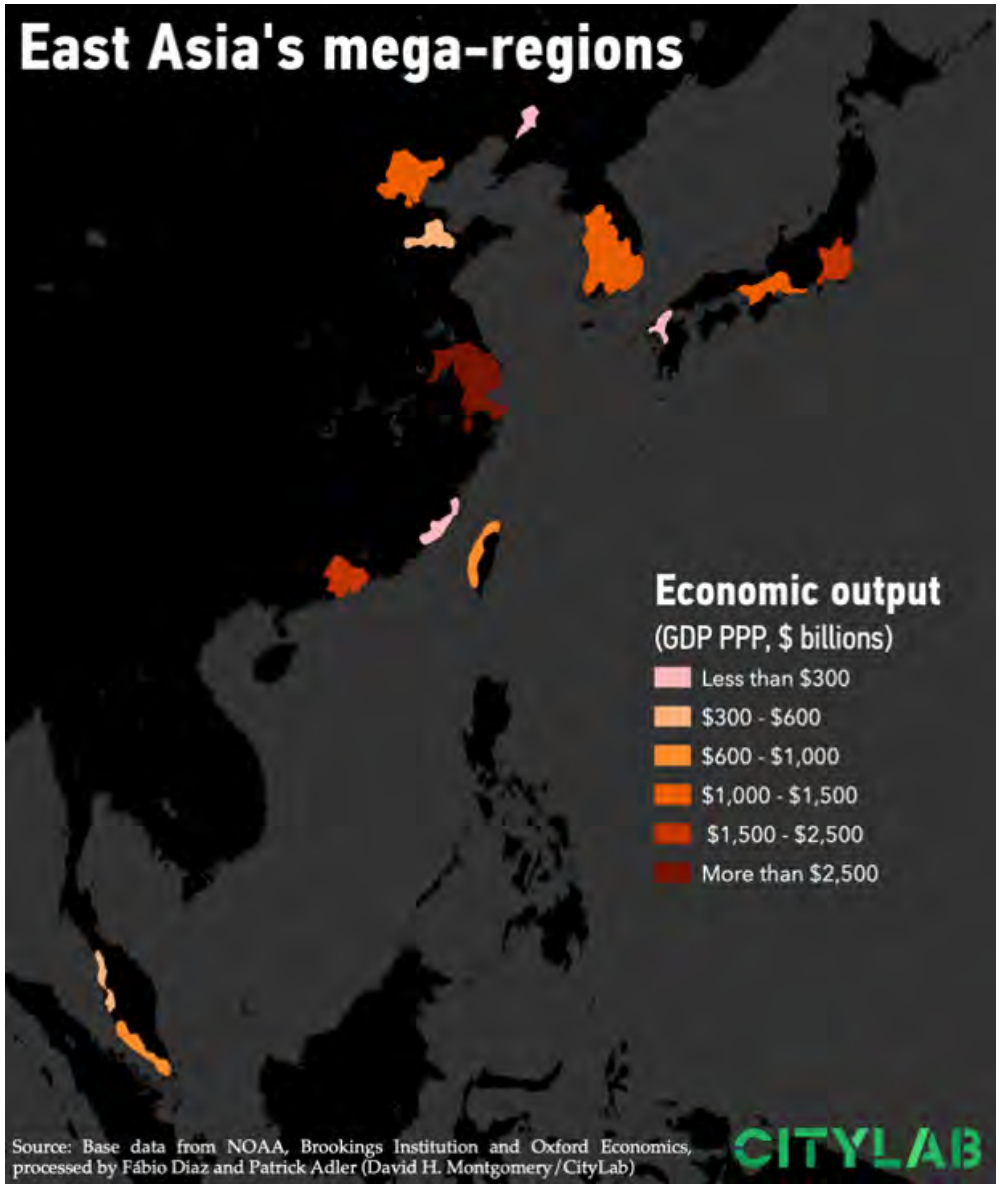



FIGURE 14: EAST ASIA'S MEGAREGIONS




Source: Richard Florida (Citylab), 2019.

FIGURE 15: CHINA'S MEGAREGIONS


Source: The Economist, 2018.

## Dimensions of megaregions

Where metropolitan areas are growing rapidly, research by Karras suggests there are five key steps to create a megaregion:

1. Two or more growing metropolitan areas
2. A rapidly growing in-between zone
3. Multiple transportation connections
4. Complementary growth patterns, and
5. A diversified regional economy.[55]

A key opportunity is to leverage in between cities and position them to accommodate strong economic and population growth. Other favourable factors are where the existing metropolitan areas are growing toward each other, and commuter rail or other infrastructure can be constructed to link several destinations into each city's urban core.[56]

## Planning approaches to megaregions

Various governance arrangements have created megaregions. Some examples, building on the case studies in Table 5 (page 27), are outlined in Table 6.

[55]Karras, J., *The five key ingredients to creating a megaregion*, 2014. Available from URL: <http://urbanscale.com/blog/5-key-ingredients-create-megaregion/>.
[56]ibid.

# Europe

| | |
|---|---|
| Government system | Constitutional Monarch<br>Republics |
| Approach to megaregional planning | The European Union creates a transnational spatial planning system for political and economic agreements and promotes economic competitiveness, enhanced social cohesion and sustainability[57]. It enables people, goods, services and capital to move freely across national borders within the internal market. |

[57]Faludi, A. (2018). A historical institutionalist account of European spatial planning. Planning Perspectives, 1-15.

# USA

(e.g. Northern California Megaregion, Northeast Megaregion, Texas Triangle and Gulf Coast)

| | |
|---|---|
| Government system | Republic |
| Approach to megaregional planning | The evolution of megaregions across the US has been based on political and financial (the Northeast megaregion, for example), or education, innovation and technology specialisations (Northern California megaregion) which lead economic development, housing and infrastructure demand.<br>As reported by several not-for-profit organisations working in this space (for example, America 2050[58], the Bay[59] planning Area Economic Institute ), the lack of interregional governance structures arrangements over the emergence of these megaregions has led to connectivity challenges that limit expansion and/or intensification in the megaregions. 'Megacities' are broadly recognised as having 10m+ people. Megaregions in the US face many of the same challenges experienced in Australia: congestion on major roads and train lines, housing affordability and educational attainment disparities across communities living in these areas. |

[58]Cooperative Mobility for Competitive Megaregions (2020), Available from URL: http://sites.utexas.edu/cm2/news/mission-objectives/
[59]Bay Area Council Economic Institute, 'The Northern California Megaregion: Innovative, Connected, and Growing' (2016), available online: http://www.bayareaeconomy.org/files/pdf/The_Northern_California_Megaregion_2016c.pdf.

# Japan

(Greater Tokyo, Keihanshin)

| | |
|---|---|
| Government system | Constitutional monarchy |
| Approach to megaregional planning | The Tokaido megaregion (Tokyo to Osaka) emerged through the industrialisation of this corridor before WWII, supported by strong infrastructure investment by the Japanese government. After WWII the Japanese government directed huge investment into industrial plant and infrastructure, generating mass migration from rural areas into Tokaido.[60] Infrastructure investment led the emergence of megaregions across Japan, with the government embracing emerging technologies from transportation, communications networks, bullet trains, motorways. Their planning emphasised specialized urban centres, with government and finance in Tokyo, heavy industry and manufacturing in Nagoya, trading and manufacturing in Osaka, high end cultural production and high-tech ceramics in Kyoto.[61] |

[60]Sorensen, A. (2002). The Making of Urban Japan: Cities and Planning from Edo to the 21st Century London: Routledge.
[61]Ibid.

# China

| | |
|---|---|
| Government system | Socialist<br>(one party) republic |
| Approach to megaregional planning | With its centralised government, China is currently implementing a plan for 19 major urban clusters, anchored around megacity hubs with several smaller nearby cities. Development of these clusters is, like Japan, led by significant infrastructure projects such as high-speed trains. It also uses a system of residency permits, where it has raised barriers to work in major cities and made it easier to live or work in the smaller cities the government wishes to develop. This approach helps control the population of its major cities and redistribute it among established and emerging cities located along high- speed rail networks. |

Building on principles from the case studies, these planning approaches could be used to develop a megaregion settlement pattern:

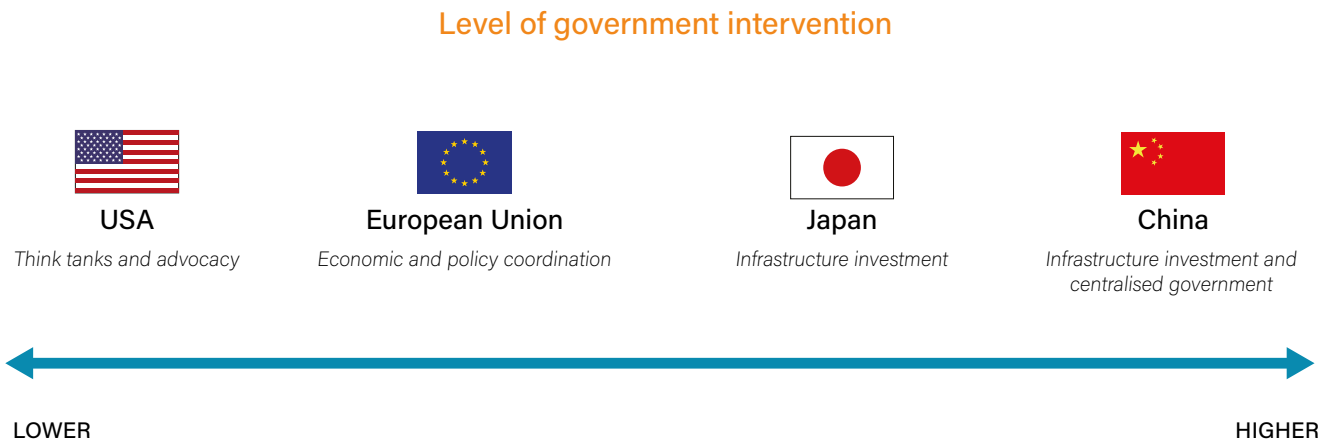
— Interregional approach to governance planning
— Integrated planning between land use, transport and economic development
— Committed governance, institutional structures that will support integrated planning over the long-term
— Improvement to existing rail services and multi-modal transport hubs to reach a greater catchment
— A clear framework to guide growth and investment in this unique Australian context.

Many of the models highlighted in Table 6 show that significant investment in infrastructure, supported by frameworks that coordinate cross-border or cross-city economies are crucial ingredients of a megaregion.

The Japanese example shows where government investment in infrastructure and early engagement with new technology sped up the already emerging Tokaido megaregion, where technology and transport linked highly specialised economies by vastly reducing travel times. In the European megaregions, governance arrangements catalysed the administrative, trade and social agreements (underpinned by high-speed rail like the TGV) that exist today.

Given the above examples, an integrated approach to land use planning, and harmonised policy priorities between states, would be crucial for enhanced productivity across the megaregion, and the success of a new settlement strategy. According to the Productivity Commission, improved planning policy and regulation has direct benefits to productivity. In fact, good governance when seeking to deliver public infrastructure can result in immense savings: 'a 10 percent reduction in the cost of delivering infrastructure would save $2.9 billion per year.'[62]
To achieve these productivity gains:

FIGURE 16: LEVEL OF INTERVENTION IN EACH MEGAREGION




Source: SGS Economics and Planning, 2019.

[62]Productivity Commission, 2017, p. 130.

— Governments must ensure that proposed projects are subject to benefit-cost evaluations and that these as well as evaluations of alternative proposals for meeting objectives are available for public scrutiny before decisions are made.
— The institutional and governance recommendations of the Productivity Commission's 2014 Public Infrastructure Inquiry remain valid and should be implemented by all governments as a priority. As a priority, to achieve this, the 2014 Report contains a dedicated chapter.[63]

Alongside these principles, there must be clear planning objectives focussed on the type of settlement pattern, and the outcomes being sought for an enhanced AESM. These objectives will enable the evaluation of projects, and ensure investment and other benefits are directed within the context of the megaregion.

Adopting an ongoing place-based approach to planning that considers local liveability will be essential to maintain the quality of life people in each city and town in the megaregion hope to enjoy. This approach will allow the broader economic benefits of managing the megaregion to lead to value capture and uplift at the local level, mitigating some of the negative externalities outlined in this paper.

For example, the benefits of large infrastructure projects such as high-speed rail should enable connection between key places within the megaregion, as well as creating an efficient land connection between Sydney and Melbourne.

High levels of connectivity can enable cities (particularly smaller ones) to utilise agglomeration effects from neighbouring cities. This can reduce the need for a city to achieve a certain population size, level and diversity of business maturity to support access to choices and opportunities. High levels of connectivity across a region can deliver the following benefits:

Connectivity is a necessary enabler of these outcomes in megaregions and within individual cities. As well as connecting goods and labour with destinations, transport can also close the gap within a broader network of cities and places, reducing the economic isolation felt by those places that are currently skipped as a result of our settlement pattern connected with air travel. In that context, faster rail and high-speed trains offer a potential solution to cover significant distances within a megaregion.[64] The Australian Government has a established a National Faster Rail Agency to provide advice to the Government on future faster rail opportunities around Australia, including for high-speed rail.

[63]ibid., p. 132.
[64]Sassen, 2010.

## 4.2 Planning across megaregions

How could developing a megaregion future- proof and position us for greater opportunities?

The case studies and examples in this paper demonstrate that building megaregions has the potential to promote growth and development in a variety of contexts. However, many other factors require consideration and need to be coordinated.

**1. Coordinate land use, transport and economic development planning**

Introducing land use planning and economic development strategies relevant to the introduction of the high-speed rail service ensures that land is developed and utilised to cater to commuters, other passenger types, and maximises the increased accessibility of these sites. In contrast, a lack of municipal direction, support for growth and governance coordination can result in poor outcomes, for example, Le Creusot in France. As the Silicon Valley/Northern California Megaregion example shows coordination between planning and infrastructure departments is important to creating an investment environment that can support innovation.

**2. Provide integrated, multi-modal transport planning and services**

Providing local bus services to link with the stations can expand catchment areas and contribute to improved integrated transport, as demonstrated in faster rail and high-speed rail case studies in Sweden, and Spain. In addition, Swedish authorities provided a bus service that mimicked the faster rail frequency as the rail line was being constructed, which enhanced passenger familiarity with the future rail service.[65]

Park and ride lots were provided to support access to the high-speed rail in the Swedish, Spanish (Ciudad Real), and Le Creusot examples. Research indicates mixed outcomes, as while as expanding the commuter catchment, large scale park and ride can restrict land use options surrounding stations.

Less successful examples such as Le Creusot have suffered from multiple factors including sporadic bus servicing to the remote station. Private vehicle therefore is the key mode of choice to access the station, with the car parking station reported to have capacity problems.[66]

These findings are relevant to the Sydney to Canberra corridor, particularly for high-speed rail stations located outside of main centres. In the Northeast Megaregion (US) example, the importance of the New Haven Line, the Acela Express program and improved movement throughout the region could save the region around $17 billion on congestion costs.

[65] https://www.sciencedirect.com/science/article/abs/pii/S0966692305000050

[66] D. Olaru, B. Smith, J. Xia, T. Lin, 'Travellers' attitudes towards Park-and-Ride (PnR) and choice of PnR station: Evidence from Perth, Western Australia,' in Procedia – Social and Behavioural Sciences, 162 (2014), pp. 101—110.
See also, Cervero, R. (2005). Transit-oriented development in America: Strategies, issues, policy directions. Paper presented at the Transit Oriented Development-Making it Happen Conference, Fremantle, Australia, 5–8 July.

**3. Link the service to the catchment and the market**

The relevance for the Brisbane to Melbourne corridor is to consider the market or labour force catchment along the corridor. That is, why is it important for two different parts of the corridor to be better linked together? What type of trip purposes (journey to work, business to business, leisure or health and education) will be supported by the improved links?

**4. Provide committed and coordinated leadership to drive the coordinated response to region-building infrastructure**

Coordinating land use, economic development and infrastructure investment is critical for maximising the benefits of major infrastructure investment.

Comparing the Northeast challenge to Silicon Valley, government authorities in the latter example have gathered support to deliver integrated public transport projects, ensuring land use and economic development plans were rolled out concurrently.

In contrast, Le Creusot station was located between municipalities that continued to safe-guard local industry development rather than supporting growth around the station.

Connecting the Brisbane to Melbourne corridor via faster rail will require coordination between multiple tiers of government. Therefore, a strong commitment to a unified vision and agreed project objectives between stakeholders will be important.

# A settlement strategy for South-Eastern Australia

This section identifies high-level options for the AESM.

## 5.1 Options for a settlement strategy

There are several choices about how this region could develop. To realise opportunities, and maximise benefits, a range of options need to be considered. This section sets out some high level options with a brief assessment of each.

### Potential choices for an AESM

There are different approaches which could underpin a settlement pattern for Australia's south-east, to support its transformation to a megaregion:

- Settlement focussed on existing cities but with improved connections between them
- New, smaller towns developed in the region (i.e. large towns of up to 100,000 people)
- A new, much larger city (i.e. a population around 1 million people) at a logical point within the region.

Delivery of any of the new or expanded town options would require significant, concerted and coordinated efforts to influence firm and household decision making. Infrastructure projects are not, on their own, enough to generate change or development.

Businesses and residents consider a range of factors when deciding to relocate, and a number of preconditions are required to generate the type of land use change that might encourage a continuation of the existing settlement pattern. This section sets out some principles and tools that could be deployed to help deliver a desired settlement pattern in the megaregion.

### Existing cities with improved connections

One approach is a settlement pattern that would involve improving connections of a smaller, regional centre to an existing metropolis. This would promote regional integration, and improve access to employment opportunities.

In this approach, the assumption is that improved transport connections would make it more attractive for businesses to engage between centres and enhance mobility within a region. Improved accessibility to regional towns through, for example, high-speed rail (with speeds of at least 250 km/h) connections, could result in improved economic and social connections between cities across the emerging megaregion, and attract a new travel market to public transport. In addition, new journey types and new markets may emerge along with the connections and around new, multi-modal hubs in existing large towns.

The risk, however, is that access provided by public transport, such as faster[67] rail would draw resources away from the regional centre, causing most people to commute to the large centre. Economic development strategies should be in place to complement the opportunities afforded by faster rail, such as shared workspaces in small, intermediate centres that make working and living in these centres attractive as well.

This approach has worked well in places where large towns are already acting as a functional region[68], as explored in the previous chapter. In those instances, a major infrastructure project such as high-speed rail would serve to enhance existing connections.

[67] Which would be a significant improvement on current speeds. For example, the average rail speed between Sydney and Wollongong is just 60 km/h).
[68] "A functional region is characterized by its agglomeration of activities and by its intra-regional transport infrastructure and established economic interaction networks, facilitating a large mobility of people, products and
inputs within its borders." Karlsson and Olsson (2015)

## New, smaller towns

One option for enhancing population distribution across the AESM is to create smaller towns throughout the region, linked to major employment centres by transit-oriented development (TOD). This concept combines a multi-centred settlement pattern with a rail network that combines high frequency and capacity.

This approach could result in the new, smaller towns becoming dormitory suburbs, where few people both live and work. However, there are opportunities to leverage early and high quality rail provision to ensure external commuting takes place by rail, rather than private vehicles. This could avoid many of the challenges associated with the last 30-40 years of new town planning across Australia, which has resulted in entrenched private car commuting.

To achieve this, transport provision needs to be multi-modal, centrally located, and coordinated as part of an approach to 'Smart City' innovations.[69] This would involve:

— TOD principles where a rail, bus or ferry (or multi-modal) transport interchange anchors a more environmentally-sustainable urban form
— Coordination between land and railway development and opportunities for rail expansion as additional new towns are added along the railway corridor
— Well-coordinated local feeder public transport services to the main node/interchange
— High level of access to public transport.

Building on this concept, the Federal Government released a Smart Cities Plan in 2016, recognising that both regional and metropolitan cities are where most Australians live, and where most economic output is produced. The Smart Cities Plan focussed on accessibility (to jobs, affordable housing, and health facilities), smart city policy (City Deals program to promote economic development), and technology (harnessing new technology and commercialising innovations).[70] Through City Deals, these ideas can be retrofitted into existing cities while being combined with TOD in new towns along major transit corridors in the AESM.

[69]John Black, Kam Tara and Parisa Pakzad, 'Planning and Design Elements for Transit Oriented Developments/Smart Cities: Examples of Cultural Borrowings', in *Procedia Engineering*, Vol. 142 (2016), pp. 2—9.
[70]Commonwealth Government of Australia, *Smart Cities Plan*, 2016.

## A new large city

The most ambitious response to rapid population growth and pressure for urban expansion is to create a new, large city. With this approach, the target population would be around 1 million, and its aim, to relieve population pressure on Sydney and Melbourne. The rationale is that a new, balanced, and self-contained city, could be leveraged alongside a large infrastructure project, such as high-speed rail, which would enable the new city to benefit from enhanced connections within the megaregion. While this approach may provide benefits in local economies of scale, there are several challenges to the new city approach, especially to achieve a large target population with a dynamic and balanced economy:

- A lack of integration with the surrounding or nearby metropolitan areas' transportation networks can lead to a future of traffic congestion and uncoordinated urban sprawl
- Cost and challenges associated with identifying land area large enough to commence development of a new, large town, in a logical location
- Risk of impacts on surrounding land uses (e.g. farmland, peri-urban interface challenges, biodiversity corridors) from introducing a new urban environment
- Getting people to move from other large cities at a rate to support timely infrastructure delivery.

Given the above, key principles for planning a new, large town should include:

- Integration between new town development and public transport outcomes (integrated land use, housing and transport planning)
- Easy accessibility – an efficient circulation and traffic system is a necessity for the new town's economy and ability to integrate with a nearby larger city or urban area, as a regional centre
- Integration of active modes (walking, cycling paths) of transport within the town with strong links to transport interchanges
- Planning for the new town must be coordinated with other regional planning governance across the megaregion.

Connection to the surrounding region, especially to a larger nearby city, with an efficient traffic system and integrated land use and transport planning would be vital for that town's success.

The next section outlines how a broader planning approach can be taken to planning for the megaregion. Building on the case studies from the previous chapter, Section 3.3 outlines how a settlement strategy could support either the small or large new town, or expansion of existing towns, to support the AESM.

## A governance structure to achieve large-scale change

Advocating for a national settlement strategy, Philip Davies (former CEO of Infrastructure Australia) highlighted that, 'a national settlement plan would focus on how we grow, not how much we grow, and it would allow us to plan beyond political and budgetary cycles.'[71] In his speech, Davies emphasised that 'settlement planning and long-term, integrated state planning would vastly improve our ability to choose and deliver the right projects.'[72]

Although federal government decision-making influences the growth and shape of places across Australia, urban and regional planning in Australia generally occurs at the state, territory, and local government levels.

*A coordinated settlement strategy for the AESM would enable a spatial approach to problem-solving resource allocation and infrastructure planning that addresses the significant population growth that will occur over the next 40 years.*

A settlement strategy for this megaregion would enable cooperation and collaboration between tiers of government, authorities, and articulate a clear position for those seeking to invest in the region.

A long-term strategy to direct infrastructure (and private) investment would enable:

- Coordination between state, territory and local government, regions and the nation
- Exploration of innovative funding models and integrated multi-modal (freight and passenger rail), multi-level (land to air and water) infrastructure planning
- Opportunities to redevelop the built environment using infrastructure in different ways
- Integration across the region on equity, economic development, climate change and legal considerations
- Coordinated approaches to seeking large-scale value capture by clearly identifying major infrastructure investment.

Integrated planning at the megaregion scale would allow governments to consider larger shifts in the Australian economy likely to affect the whole region while enhancing the connection (social, economic, environmental) between places within the region itself.

[71]Philip Davies, former CEO of Infrastructure Australia, Speech 25 June 2018, Available from URL: <https://www.infrastructureaustralia.gov.au/listing/speech/prioritising-reform>.
[72]ibid.

## 5.2 Benefits of a megaregion for Australia

There are many benefits to developing a megaregion in Australia. A megaregion would provide choices and resilience in an uncertain future. The current trajectory of urban development could result in a number of adverse outcomes. Planning on this basis does not represent a step-change in settlement pattern and structure. It could mean we end up with mega sprawl in two main cities with deepening economic and spatial divides.

By providing an integrated planning framework for beyond 2050, long term investments and infrastructure prioritisation could occur in the context of broad agreement about the outcomes which are sought. A long term framework allows us to contemplate the best future for the region, rather than just the best future for individual cities.

For the community, a megaregion would provide more people with access to capital city benefits such as jobs, education and social opportunities. It would mean that people with a variety of talents have more choices and options about where to live. In the long term, this growth across a number of cities and regions will contribute to improved places, as new residents bring wealth and vibrancy.

From an economic and investment perspective, the scale of the megaregion will improve its appeal to international investment. An integrated approach to planning would enable a clear package of investment projects to be identified, of a scale which could attract international financing. The ability to articulate clear sequencing for projects across the region will also provide additional certainty for decision making. Conceptualising an integrated region would help make us competitive with other global places, by branding and raising the profile of the region. This could help overcome Australian tyranny of distance.

### What could the productivity gain be from a megaregion?

As outlined previously in this report, there are opportunities to improve the economic outcomes within the megaregion (e.g. reduced congestion, improved strategic planning, improved housing affordability). To provide an idea of what the productivity gains could be from improved planning and integration, if there were a one percent improvement to the economy of the megaregion, then the national income would be increased by $13.2 billion in 2018-19. By 2049-50, this would increase to $37.5 billion.

The net present value of this one percent improvement over the 30 years would be $267.5 billion. Table 7 presents the possible gain for the Australian economy assuming 0.5 percent, 1.0 percent and 2.5 percent improvement in productivity.

TABLE 6: POSSIBLE GAINS TO GDP (MILLIONS)

| Assumed improvement in GDP | 2018-19 | 2049-50 | NPV |
|---|---|---|---|
| 0.50% | $6,567 | $16,278 | $133,738 |
| 1.0% | $13,135 | $32,555 | $267,476 |
| 2.5% | $32,837 | $81,388 | $668,689 |

Source: SGS Economics and Planning, 2019.

# Next steps

This section outlines some key steps that the Committee for Melbourne, in collaboration with other eastern seaboard "Committees for"[73] and their members could take, alongside government, to progress an urban settlement strategy for the AESM.

The reconceptualization of south-eastern Australia as the AESM could begin immediately, and could follow the form of a strategic planning process based on several steps:

### ➔ Step 1: Identify the strategic position

The first step in the process (currently underway), is to outline "the pitch" for why the AESM would improve employment and economic choice and address liveability challenges across Australia's south-east.

### ➔ Step 2: Gather people and information

Building on and extending the research from this project, Committee for Melbourne, and their partners, alongside government, could further delve into the liveability and productivity problems faced across Australia's south-east.

This step is where early action could be taken. Target actions which are relatively easy to enact that would deliver tangible benefits- for example, advocating for and working with government to achieve ticketing harmonisation across public transport systems. These quick wins could help bolster further investigation into a potential AESM.

### ➔ Step 3: Analysis of key strengths and opportunities across Australia's south-east

Promoting the AESM concept across government and public forums can raise awareness of the scale, importance and potential opportunities that exist if the region was developed on the one hand and the cost of business-as-usual on the other.

Further development of how the AESM could function should also occur, which could involve testing and assessing various scenarios to understand viable propositions and the investments required to deliver the outcomes envisaged versus the costs of 'business as usual' approach.

Building on Chapters 4 and 5, a high level multi-criteria assessment could be used to establish how settlement planning could be achieved, considering access to jobs, services, as well as environmental outcomes such as vehicle kilometres travelled or emissions.

Risk mitigation should be considered; there may be significant risks associated with proposing a new city of a million people, for example. Mitigating risks would also help identify packages of investments that could be promoted to major investors.

[73]Committee for Sydney, Committee for Brisbane

### ➔ Step 4: A strategic plan for the AESM

Harmonising planning and other legislative frameworks should be progressed; this would contribute towards an improved business operating and investment environment.

This should be informed by an overarching framework articulating the role of places within the megaregion and discussion on Australia's alternative growth trajectory towards becoming a nation dominated by several megacities.

### ➔ Step 5: Implement the plan

With a clear overarching strategy, major transformational projects could be commissioned and delivered.

This step involves acting on the AESM Strategic Plan. Here, Committee for Melbourne (and their partners) may continue to advocate for improved economic and social outcomes across the region. Other government departments and agencies would have tasks assigned, and there would be a clear pathway for monitoring and review.

### ➔ Step 6: Review, iterations and improvements

As the project progresses, Committee for Melbourne and their partners, will be able to revisit, revise and enhance the recommendations and approaches outlined in the strategic plan from Step 4. As advancements are made, new projects and initiatives can be added to the program.

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