Bigger & Better Beyond the Boom

PERTH’S PATHWAY TO PROSPERITY

Compendium Report: A decade’s worth of thinking
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Compendium Report: A decade’s worth of thinking

Bigger & Better Beyond the Boom is a project of the Committee for Perth. The project is supported by its membership base with the following organisations providing additional funding:

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Perth's economy is in a period of transition.
1.0 Introduction and Summary

This report has been prepared for the Committee for Perth as part of the Bigger & Better Beyond the Boom (B4) project. It summarises and consolidates the findings of 27 research reports and strategies with relevance to the economic future of Greater Perth. These reports were primarily prepared between the decade 2008-2018. It is not an exhaustive list of reports, but provides a representative sample of documentation prepared by a broad range of organisations including federal, state and local governments, peak and industry bodies, non-government organisations and research institutions. It also includes research and strategies prepared by the Committee for Perth prior to the commencement of the B4 project.

What the exercise has illuminated is that Perth’s thinkers and policy makers have been diligent in drawing attention to future opportunities and challenges for the region. As a think-tank, the Committee for Perth has been a leading voice on the need to stop relying on a ‘business as usual’ approach and a growing chorus of voices from in and out of government agree. In order for Perth to realise a bright and prosperous future, the region’s policy makers need to move beyond thinking to implementing.

In the face of new and growing challenges for the nation, the resulting Bigger & Better Beyond the Boom: Perth’s Pathway to Prosperity report identifies 11 opportunities and seven recommendations to realise a bright future for the region.
Key findings:

- There is significant continuity in the issues identified and addressed in the research reports, but there are some differences in the overall narrative projected for the region’s future.

- The reports articulate a strong consensus around issues of key importance to the region’s economic future. These have been identified as:
  - Innovation and Technology.
  - Education, Knowledge and Skill Development.
  - Networks and Collaboration.
  - Governance, Regulatory and/or Tax Reform.
  - Infrastructure Development.
  - Economic Diversity.
  - Connections with Asia.
  - Liveability.

- The focus of reports has shifted slightly over time with:
  - A reduced focus on issues associated with liveability and the future growth of mining and energy sectors; and
  - An increased focus on skills and education; technology and innovation since 2015.

- Most reports are static – there is limited or no monitoring and performance measurement.

- The Committee for Perth has been a leader in researching and highlighting economic issues over the past decade. Recommendations from the Committee for Perth’s 2012 Towards a Bright Future report, for example, remain highly relevant today, that is, we’ve been talking about most of these issues for a decade now.

- Most recommendations are consistent with the Committee for Perth’s advocacy agenda over the past decade.

The analysis has identified prevailing narratives for the Greater Perth economy including:

- Boom-bust economy.
- Need to increase economic diversity by investing in emerging growth sectors and potential growth sectors.
- Region lagging in education, knowledge, innovation and ability to respond to major global change/disruptors.
- Need for continuous investment in infrastructure and future liveability.
- Need for less fragmented, more collaborative governance.
- Proximity to Asia as potential competitive advantage.

It has also identified alternative approaches, issues and/or ideas which include:

- Presenting Perth as global mining resources control centre and innovation/knowledge hub.
- Resilient economy.
- Inequality in that the benefits of the economy are not shared equally.
- Asia as potential opportunity and competitor.
- Translating threats and disruptors into opportunities.
Table 1 provides a summary of the strengths and weaknesses of Greater Perth's economy identified in the reports, while Table 2 summarises the findings and recommendations of the reports examined in chronological order.
Table 1: Summary of Key Strengths, Weaknesses, Opportunities and Threats Identified in Research and Strategy Reports

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
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<tr>
<td>Mining/resource economy with highly diverse resource base.</td>
<td>No other (non-mining) sectors of sufficient scale to become future growth drivers.</td>
<td>Global command and knowledge centre in the global mining and resource community.</td>
<td>Automation and loss of low-skill jobs.</td>
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<td>Complementarity between the minerals and energy sectors and associated firms/companies engaged in producing and promoting technical, economic, logistical and intellectual products and services.</td>
<td>Early adopters of technology and innovation rather than first in the world developers.</td>
<td>Shift to/investing in an innovation economy.</td>
<td>Increasing competitive advantage associated with innovation i.e. ‘superstar’ economics where innovators take a bigger share of the winnings than ever before.</td>
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<td>Potential to increase diversity within mining and energy sectors.</td>
<td>Small size of knowledge intensive industries.</td>
<td>Geographical proximity to Asia and natural advantage in servicing demand for high value products and produce.</td>
<td>Changing labour market – more precarious, flexible, multi-faceted and portfolio-based.</td>
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<td>Innovation and technological advancement in mining and energy sectors.</td>
<td>Labour market marked by weaker demand, growing precariousness and reduced work hours.</td>
<td>More sophisticated partnerships between Australian and Asian companies.</td>
<td>Climate change and transition to a low carbon economy.</td>
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<td>Role as a centre of decision-making and power in the mining and resources sector.</td>
<td>Lack of strategy for the State’s energy future.</td>
<td>Increased diversity in commodities traded and countries we do business with.</td>
<td>Ageing population.</td>
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<td>Strong brand (Australia as a whole).</td>
<td>Regulatory inefficiencies.</td>
<td>New jobs/higher skill jobs associated with automation.</td>
<td>Increased competition from Asia in some sectors.</td>
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<td>Liveability.</td>
<td>Share of international student enrolments in decline.</td>
<td>Creation of geographical industry hubs as hubs of R &amp; D, innovation and diffusion.</td>
<td>Lack of access to skilled/knowledge workers.</td>
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<td>Loss of tourism market share.</td>
<td>Growing the small business sector as employers, exporters and innovators.</td>
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<td>Limited size and scale of the innovation system.</td>
<td>Increased collaboration between industry and the education sector.</td>
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<td>Infrastructure deficit (communications technology, transport/connectivity).</td>
<td>Potential to grow agriculture, tourism and education sectors.</td>
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<td>Government fragmentation.</td>
<td>Growth of health sector, which is seen as linked to population ageing.</td>
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<td>Lack of digital and data connectivity.</td>
<td>Smart City movement – improved infrastructure performance/efficiencies and ability and capacity to analyse data.</td>
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<td>Urban sprawl/car-dependent development model.</td>
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<td>Australia not optimising its role in the commodities value chain.</td>
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<td>Inequality and economic stress.</td>
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On our journey to a prosperous future, we may find ourselves in uncomfortable and unfamiliar territory.
### Table 2: Summary of Research and Strategy Report Findings and Recommendations

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<thead>
<tr>
<th>Report Name</th>
<th>Target Area</th>
<th>Key Issues Identified/Addressed</th>
<th>Recommendations/Goals/Actions</th>
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<tr>
<td>1. Perth’s Creative Industries – An Analysis</td>
<td>City of Perth</td>
<td>A geographical and qualitative analysis of Creative Industries (CI) in Perth. CI are defined as those that turn original and creative content into commercial outcomes. These include music and performing arts, film, television and radio, advertising and marketing, software, web and multimedia development, writing, publishing and print media, architecture, design and visual arts. CI earnings are growing at a rate 25% higher than other industries. Workforce of CI has grown at more than four times the rate of other industries. The largest CI segment is software and particularly strong growth has been recorded in software, advertising and music. 2.3% of the mining industry workforce are embedded creatives. The highest proportions of CI workers were in the City of Subiaco and the City of Perth. The highest growth rate was in the City of Belmont. Most CI organisations are small and suffer from isolation – both isolation from potential national and international investors and isolation within the region due to geographic dispersal. Need to improve the business capacity of CI workers, as well as exploit improved communication technologies.</td>
<td>Recommendations:  - Global niche marketing services.  - Business intelligence, joint venture facilitation and improving CI business skill development.  - Invest in technology infrastructure on par with Singapore.  - Assess a selection of finance initiatives.  - Develop new education products and services.  - Create city hubs.  - Networking and collaboration to drive innovation.  - Leverage technology.  - Secure access to Asian markets.  - Access to superior communications technology.</td>
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<td>2. Can a Resource Economy be a Knowledge Economy?</td>
<td>WA</td>
<td>Most OECD countries have followed a linear transition from agriculture and natural resource-based economies, to manufacturing and ultimately to service and knowledge-based economies. WA still generates the majority of its wealth through agricultural production and mineral/resource extraction. But does this preclude the State from also having a dynamic knowledge economy? Using the nickel industry as an example, the paper examines and highlights the characteristics of a knowledge economy that are present within the minerals and resources sector in WA.</td>
<td>Recast Perth as a crucial centre of authority on resource exploration and discovery in the global economy.</td>
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| 4. Economic Development Strategy | City of Perth | This economic development strategy identifies a vision for Perth in 2029 as a connected and informed capital city with a unique identity and an economy that is diverse, resilient and adaptable. To realise this vision, the strategy identifies six desired outcomes for economic development. By 2029, the City will: | Unique Operating Environment: The City will build on its traditional assets and natural advantages to create new opportunities, experiences and interesting urban environments.  
- Activate public and private underutilised spaces.  
- Have a greater range of affordable commercial spaces to attract, retain and grow more diverse small businesses.  
- Offer more tourism opportunities for Perth and improve tourism development.  
- Shape an environment that supports a modern economy and encourages business interactions and the exchange of ideas.  
- Strengthen and develop the distinct retail experience in the City.  
- Create a stronger sense of local identity and place and add to the capital city’s unique character.  
Advocacy and Engagement: The City’s advocacy and engagement will create a resilient and sustainable city economy that is nationally and globally connected. The City will take a lead role to build prosperous and effective domestic and international relations and will continue to work closely with all levels of Australian Government and stakeholder organisations.  
- Establish new business groups in precincts where there is an identified need to better represent the dynamic interests of the business community.  
- Communicate more regularly and effectively with the business community and key stakeholders. |


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| 4. Economic Development Strategy (Continued) | City of Perth | • Value and encourage entrepreneurs, new ideas and innovative businesses.  
• Have a more resilient and adaptable economy.  
• Have an informed, connected and collaborative business community. | • Sustain Perth’s position as the region’s energy and resources hub and encourage more events, networking and other activities that support the ongoing development of those sectors.  
• Attract new investment and more skilled people to Perth.  
• Work more closely with State and Federal governments to meet desired outcomes.  
• Establish Perth as an ‘education city’ and a destination of choice for international students.  
**Business Development:** To broaden the city’s economic base, the City will provide strong support and active encouragement for knowledge economy sectors, innovators and small businesses.  
• Build the capacity of the city’s people and business community.  
• Facilitate the creation of an urban and business environment that supports its economic development.  
• Increase the number of business activities that relate positively to and attract activity at street level or encourage different and interesting uses of the city.  
• Increase the contribution of knowledge economy sectors to the city’s economy.  
• Ensure that small businesses, entrepreneurs and emerging industries are adequately supported and help them to prosper.  
• Build and retain a larger stock of creative and innovative people and businesses in the city. |
| 5. Perth’s Energy Economy | Perth and Peel region | • Perth is the hub of Australia’s energy industry and a leading player globally.  
• Perth is an increasingly important location for corporate headquarters.  
• Between 2001 and 2006, direct employment in the energy sector nearly doubled.  
• Perth has five competitive advantages that appear to be contributing to the emerging energy cluster.  
• The energy sector contributes and adds value to urban life and is as much about scientific and technological innovation than resource extraction. | • Need to maximise the benefits of the expanding resources and energy economy, while mitigating against problems associated with rapid population and economic growth.  
• Partnerships such as the World Energy Cities Partnership play a role in reflecting and learning from the shared experiences of global energy cities. |
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| 6. Global Competitiveness – Implications for Perth | Perth and Peel region | • Perth’s increasing engagement with the world as more than a raw materials hub but as a locale of decision-making and power.  
• The mining and resource sector has driven growth in mining and competitiveness.  
• Growing role of Perth as a corporate headquarter in the mining and resources sector.  
• Perth’s position within the national economic framework is likely to be consolidated over the next decade.  
• Perth’s minerals and resource economy is both specialised and diversified.  
• Skilled migration plays a role in keeping Perth competitive.  
Competitive success at the levels of cities and city-regions depends on:  
• Cities and city-regions.  
• Skills and human capital.  
• Broadly defined quality of life and environment.  
• Innovation.  
• Connectivity.  
• Effective Infrastructure.  
• Political-economic cohesion. | • Perth’s economic base is closely linked to the mining sector so vulnerability to price fluctuations in the international market is a key concern.  
• Economic diversity enhances economic performance by promoting well-being and cushioning economies against the adverse effects of economic cycles.  
• The growth and stability properties of the industries that make up an economy are also important.  
• Need to identify opportunities for diversification towards a knowledge economy. |
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<td>7. Towards a Bright Future – A vision for Perth as a region of 3.5 million people</td>
<td>Perth and Peel region</td>
<td>Towards a Bright Future</td>
<td>Shared Vision</td>
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<td>Examines the strengths, weaknesses and opportunities facing Perth from 2012 to 2050 and identifies both ‘Bright Future’ and ‘Business as Usual’ future scenarios for the region.</td>
<td>1. Develop a shared vision for the region as a guiding statement to unify government and non-government action in the region.</td>
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<td>The Bright Future Vision:</td>
<td>Innovation</td>
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<td>People: A region that is safe and welcoming, where all people can find their place: young or old, newcomer, long-term resident or Perth ‘born and bred’.</td>
<td>2. Reform local government and develop a metropolitan governance framework.</td>
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<td>Prosper: A national economic powerhouse and globally recognised engine of knowledge, innovation and entrepreneurialism in the resource and energy sectors and beyond.</td>
<td>3. Encourage participation in public policy development: develop a ‘whole of government’ public policy and practice strategy.</td>
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<td>Plan: A distinctive region with a high-quality public transport system, vibrant city centres, and housing, lifestyle and recreation choices that meet the needs of all people.</td>
<td>Collaboration and Adaptation</td>
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<td>4. Affordable housing: develop more diverse and affordable housing choices.</td>
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<td>5. Foster tolerance and acceptance: promote multiculturalism and diversity as critical to a prosperous and innovative future for Perth.</td>
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<td>6. Acknowledge and respect Indigenous culture and history.</td>
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<td>7. Encourage lifestyle and recreational choices.</td>
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<td>8. Reduce crime and emphasise community health and safety.</td>
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<td>9. Build a diverse and resilient economic future founded on innovation and entrepreneurialism: innovation in the resource and energy sectors, by investing in science and technology; in renewable energy and resource efficiency through targeted investment and enabling access to funding; and by encouraging and assisting the establishment of new creative and innovation industries.</td>
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<td>7. Towards a Bright Future – A vision for Perth as a region of 3.5 million people (Continued)</td>
<td>Perth and Peel region</td>
<td><strong>Green:</strong> An environmentally friendly, clean and pristine region that is committed to maintaining its natural beauty and active, outdoor lifestyles. <strong>Learn and Create:</strong> A dynamic, intelligent region that is focused on knowledge and innovation as central to its social, economic and cultural well-being. <strong>Decide:</strong> A region which ‘evolves with the times’ and whose government, business and community sectors work together through a shared vision, collaborative action and good governance to achieve a positive future.</td>
<td>10. Promote a positive and consistent image of Perth. 11. Ensure high-quality ‘hard’ infrastructure. 12. Develop an integrated land-use and transport network. 13. Ensure the public transport network includes light rail. 14. Maintain a quality outdoor lifestyle and provide good public amenity as density increases. 15. Reduce red tape to facilitate diverse and affordable housing. 16. Implement ‘quicker, lighter, cheaper’ initiatives to activate spaces. 17. Facilitate an increase in the development of human capital. 18. Create knowledge, innovation and creativity hubs. 19. Commit to environmental sustainability. 20. Be a leader in green innovation.</td>
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| 8. Perth as a global minerals and energy resources hub                       | Perth and Peel region       | • The minerals and energy resources industry is, and will continue to be, a major driver of Perth’s growth and competitiveness.  
• Perth is unlike many other mining and energy cities around the world, with a highly diverse resource base, a large number of locally-grown businesses, and a vibrant knowledge economy.  
• Perth is “increasingly recognised as a global solutions centre” in oil and gas.  
• In terms of liveability, Perth ranks as one of the highest of all major minerals and energy cities.  
• Specialisation in, and diversification within, the industry will be further consolidated with ongoing and increasing investment in new resource projects.  
• Perth’s corporate landscape is changing, pointing to Perth’s growing integration with the world city network.  
• Access to skilled workers, temporarily addressed through sponsored working arrangements, such as the Subclass 457 visa, is important for the industry.  
• Collaboration between the universities and academic institutions and the mining and resources industry is continuing to address skilled labour shortage as well as foster knowledge generation within the industry.  
• Various research centres and centres of excellence established in support of the industry play a leading role in developing and enhancing its knowledge base and global profile.  
• There is growing complementarity between the minerals and energy sectors and associated firms/companies engaged in producing and promoting technical, economic, logistical and intellectual products and services.  
• Innovation will remain a key ingredient for the long-term global competitiveness of the industry.                                                                 | N/A                          |
| 9. Perth’s global connectivity in energy                                    | Perth and Peel region       | A FACTBase Bulletin which explores the location decisions of multinational organisations in the energy sector and, in particular, focuses on where Perth lies within this global network.  
While Perth holds a lower rank in advanced producer services than Sydney and Melbourne, it emerges as Australia’s most global city in terms of energy with particularly strong ties to the Asian region. Importantly, this role has emerged over a relatively short period of time, with the development of the North West Shelf in the 1980s a critical turning point. | N/A                          |
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2. Physical infrastructure – coordinating physical infrastructure with development for community betterment.  
3. Social infrastructure – enabling liveable, inclusive and diverse communities. | The resources economy – maintaining and enhancing Western Australia’s position as the destination of choice for responsible exploration and resource development.  
Education, training and knowledge transfer – making Western Australia globally competitive as a creative, innovative and knowledge-based economy.  
Tourism – promoting and enhancing a range of experiences unique to the State, supported by iconic landscapes, biodiversity, culture, arts and events.  
Agriculture and food – enabling the State’s food supply chain to meet the projected demands of its domestic and global food and fisheries markets.  
Remote settlements – enabling remote settlements to maintain economic and community development through improved connectivity, services and cultural support.  
Land availability – ensuring the sustainable supply, use and development of land with a strong presumption in favour of the sustainability of prime agricultural land. |
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<td>State of the Future - A Vision for WA (11)</td>
<td>WA</td>
<td>Primary focus on regulatory reform and tax reform to address governance, economic and social issues. Identifies a number of key issues for the economic future of the State: <strong>Emerging markets</strong>: The growth of the Asian region provides significant opportunity, given WA’s advantages in resources and energy, agriculture, tourism, education and manufacturing. <strong>Technology</strong>: New technologies will boost productivity, deliver new products and services, and make it easier to access overseas markets. <strong>Leveraging the university sector</strong>: Collaboration between industry and academia unlocks innovations. WA is in a prime position to benefit from the translation of knowledge and research into economic benefits. <strong>New commodities</strong>: WA has significant untapped resources including uranium and low carbon fuels such as natural gas. <strong>Centralisation</strong>: The greater role of the Commonwealth in areas of State responsibility means political decision-making, regulation and service delivery may not represent WA’s best interests. <strong>Climate change</strong>: Transition to a low carbon economy without a global solution will incur adjustment costs and could impact on the competitiveness of WA’s energy-intensive, trade-exposed industries. <strong>Increased protectionism</strong>: Following the Global Financial Crisis, there is a risk that countries will turn to protectionism as a way to guard against future downturns.</td>
<td>Recommendations are primarily for government and focus on sustainable revenue for the states; service efficiency; infrastructure development, planning, management and efficiency; and tax and regulatory reform. <strong>Government Reform</strong>: The report makes 10 recommendations for Government reform focused on improving Commonwealth State relations and state government financial management to deliver the following goals:  - <strong>Short-term</strong>: Maintain real per capita operating expenses at current levels.  - <strong>Long-term goal</strong>: Western Australia to be the most tax competitive state in Australia on a per capita basis.  - <strong>Long-term goal</strong>: Australia to maintain its position as a ‘below average’ taxing nation in the OECD. <strong>Economic reform</strong>: The report makes 32 recommendations to deliver more effective regulation; flexible and modern industrial relations; encourage innovation; skilled and educated workforce; world-class infrastructure; secure and affordable energy; access to land; access to international markets; attracting foreign investment; and achieve the following goals:  - <strong>Short-term goal</strong>: Australia to be ranked in the top 10 countries as measured by the Global Competitiveness Index.  - <strong>Short-term goal</strong>: WA’s rate of growth in multifactor productivity to increase to the national, pre-slump term average of 1.3 per cent.  - <strong>Short-term goal</strong>: WA’s spending on research and development as a proportion of GSP to be the highest in Australia.  - <strong>Long-term goal</strong>: WA’s economic output per capita to remain the highest of all states.  - <strong>Long-term goal</strong>: Australia to be ranked in the top five countries as measured by the Global Competitiveness Index.  - <strong>Long-term goal</strong>: WA’s long-term average rate of growth in multifactor productivity to meet and then exceed two per cent per annum.  - <strong>Long-term goal</strong>: WA’s spending on research and development as a proportion of GSP to be among the top five OECD nations.</td>
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<td>11. State of the Future - A vision for WA (11)</td>
<td>WA</td>
<td><strong>Ageing population:</strong> The ageing population will place increasing pressure on Government budgets and reduce the supply of labour.</td>
<td><strong>Social Development.</strong> The report makes five recommendations to deliver the following social development goals:</td>
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<td><strong>Social landscape:</strong> Social and demographic changes will require our labour market to be more flexible and responsive as people look to balance work with caring responsibilities, education, and the transition to retirement.</td>
<td>• Short-term goal: Increase participation rates of under-represented groups by five percentage points.</td>
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<td>• Short-term goal: Perth to be the highest rated city in Australia according to the Economist Intelligence Unit Liveability Index.</td>
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<td>• Short-term goal: WA’s employment to population ratio to be the highest in Australia.</td>
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<td>• Short-term goal: WA’s educational attainment to be the highest in Australia.</td>
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<td>• Long-term goal: Increase participation rates of under-represented groups to overall participation rate for WA.</td>
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<td>• Long-term goal: Perth to be the highest rated city according to the Economist Intelligence Unit Liveability Index.</td>
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<td>• Long-term goal: WA’s educational attainment to be the highest in the OECD.</td>
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<td>12.    Economic stress in Perth - a matter of</td>
<td>Perth</td>
<td>This FACTBase Bulletin explores economic stress across Perth and Peel Statistical Local Areas (SLAs) between 2008 and 2012.</td>
<td>Given the individual nature of the poverty experience, overcoming poverty depends largely on providing low income groups with a means to access and connect with the diversity of Perth’s economic and social resources. As such, the entrenched nature of economic stress is best addressed by policies emphasising greater community and business connectivity and accessibility. For example, those promoting low cost housing provision in wealthier and amenity-rich middle and inner SLAs, as well as those advocating for greater public transport accessibility between outer SLAs and Perth’s key employment and education centres.</td>
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<td>geographic (12)</td>
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<td>Despite the booming economy, there has not been a universal decrease in economic stress across the Perth and Peel metropolitan region. After the 2008 GFC, economic stress fell in 21 of its 40 SLAs. Simultaneously, almost as many SLAs (19) experienced an increase in economic stress. Hence, economic stress remained fairly static in overall spatial terms, but was displaced from inner SLAs to emerge in SLAs on the periphery of the metropolitan region.</td>
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<td>13. Start Up Ecosystems (13)</td>
<td>WA</td>
<td>The potential economic impact of disruptive digital technologies on Western Australia’s economy in 2025 could be over $76 billion per annum, approximately 25% of Gross State Product (GSP). Clusters emerging in eCommerce, Fin-tech, Healthtech, Resource-tech, Education-tech and in areas such as Gaming and Human Resources. Product and technology types identified were diverse, ranging from mobile applications and machine learning to 3D printing. Technologies inclined to less complex technologies rather than more complex emerging technologies such as drones, advanced robotics and machine learning. Over $101 million in total funding to WA tech startups over the six year period to 2015. This included 77 startups, 10 of which raised funding by listing on the Australian Securities Exchange (ASX). Total funding results in an average per capita funding ratio of $6.61, one of the highest levels seen nationally, however still substantially lower than international ratios which go up to $183 in Israel and $4,341 in Silicon Valley. There is a scarcity of available capital to fund more resource intensive technology development. Identifies a relatively small number of computer science graduates and electronic engineers completing university courses in Western Australia. There are a substantive number of meetups, hackathons and community driven educational activity in the ecosystem. Co-working spaces have arisen in the past six years in the Perth CBD, Leederville, Joondalup, Fremantle. These places serve as a vibrant catalyst for innovation and entrepreneurship and are increasingly moving up the innovation value chain from offering sharing office space to formal startup accelerators, providing seed capital for early stage commercialisation.</td>
<td>The early stage technology industry in Western Australia is still in its infancy, with a few breakout successes that have managed to overcome regional isolation and sparse support. Western Australia has a promising level of engagement in some of the most innovative new technologies coming to market such as Fin-tech, Health-tech, Resource-tech and the Industrial Internet. Given a substantive effort by all participants in the ecosystem – entrepreneurs, investors, educators and government. <strong>Play to local strengths:</strong> This includes our shared time zone and proximity to Asia, lifestyle and the Square Kilometre Array. Participants also suggested that startups and other stakeholders within the State should focus on developing strong local markets and relationships with existing industries such as mining, oil &amp; gas, agriculture, aquaculture, water, energy, tourism and aged care. <strong>WA Culture:</strong> WA culture and environment was identified as an attractive destination for talented engineers given the right economic opportunities.</td>
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<td>13. Start Up Ecosystems (WA) (continued)</td>
<td>WA</td>
<td>WA universities have a history of commercialising innovation, out-performing east coast universities when viewed through the lens of company formation and university spinouts. There is also an increasing number of student led programs, hackathons and incubators arising out of universities, such as UWA’s Bloom Labs. However, US and UK university company formation rates are much higher. The role of the university is fundamental to the national innovation system. Its main functions are to research, educate and engage with industry. Universities are therefore assets in an innovation economy, investing in and fostering talent, capital and R&amp;D, and contributing to the generation of new ideas, commercialisation of new technology, entrepreneurship and business innovation, which in turn increases economic competitiveness and prosperity. With governments across the world looking to technology innovation as a driver for national economic growth, universities are expected to be the incubators of this national capacity. Western Australia underperforms on a range of measures including lower startup formation rates and lower funding ratios than comparable global tech hubs, however the industries growth over the past six years provides encouragement that Western Australia can develop a strong technology sector over the coming decade. Community members have identified a number of issues hindering startups in WA, including the lack of an innovative, entrepreneurial culture; lack of depth in technology talent; few large-scale companies feeding talent and technology back into the startup system; lack of accessible funding options for startups; inadequate engagement and collaboration between multiple players in the system (i.e. universities, government, industry); lack of government support and leadership; need for increased participation in STEM education; conservative government; and industry investment and procurement processes.</td>
<td>Availability of Risk Capital: While participants saw access to funding as a large challenge, they also recognised that WA has large pools of available capital and has experience deploying it in high-risk early stage mining ventures, not unlike the risk profiles on startups. These well-developed, resources-focused capital markets and financial services could be educated or re-oriented towards the tech sector. Accessing these funds, together with Australia’s extremely large superannuation pool, was also identified as a key opportunity. Proximity to Asia: Proximity to Asian markets and shared time zone is a key opportunity, especially given the limited size of local State and national markets. Government Reform: Tax incentives and better financial incentives for investors and for companies to fund innovation. Improved Diversity: Improving the diversity of talent, including more immigrants, more women and the inclusion of more entrepreneurs with cross-disciplinary or alternative industry backgrounds, was also seen as a strong opportunity for growth.</td>
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<td>14. Tiger, Tiger Burning Bright? Western Australia’s trade and economic development with Asia</td>
<td>WA</td>
<td>The value and prospective increases in the production volume of WA’s main export commodities depend on the health of China and other emerging markets in Asia, but also on the ability of WA to remain competitive and attract investment. Growth in Japan should provide some support for WA commodity products. China’s expansion has become increasingly uncertain. WA has a natural advantage in servicing demand for high-quality products, given its proximity to Asian markets. The biggest challenge for WA is bridging the gap between knowledge and innovation and commercialisation and exports. Asia is important due to its geographical proximity, but traditional bilateral trade is giving way to more sophisticated partnerships between Australian and Asian companies.</td>
<td>• Trade diversification in both the breadth of commodities traded and the countries with whom we do business. • Broaden the base of regional economies and expose more products and services to the overseas market. • Education is an attractor of international business and investment and should be regarded as a valuable piece of infrastructure through which to attract skilled labour to the State and build global business networks. • Need for trade strategy and policy that supports WA industry.</td>
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<td>15. Driving Change Perth and Peel Economic Development Strategy and Infrastructure Priority Plan</td>
<td>Perth and Peel</td>
<td>Job growth in key industries to support population increases and continued diversification of the Western Australian and Perth and Peel economy. Efficient utilisation (and development) of basic infrastructure to reduce the ongoing maintenance burden (e.g. power, water, gas, wastewater). Enhanced connectivity and infrastructure to support trade with local, regional, state, national and global markets (e.g. ICT, intermodal connections between transport networks (port, airport, road and rail)). Reduced congestion on the passenger transport network through enhanced services, completion of regional road networks and/or provision of employment lands near residential areas to reduce the passenger transport task moving forward. World-class amenity and lifestyle characteristics to attract and retain key workers.</td>
<td>• Development of the Outer Harbour at Kwinana: To facilitate additional capacity in trade infrastructure, efficient transport and logistics infrastructure and ensure the opportunity for Fremantle as a destination and activity centre is realised. • Latitude 32: To support major industry growth through the delivery of a 1,600ha industrial precinct. • Intermodal sites (Bullsbrook and Mundijong): To secure future intermodal sites and ensure long-term transport and logistics capacity. Mundijong will require greater private sector investment. • Common User Facilities: To support innovation hubs and encourage smart business startups as well as digital hubs to support regional annexes of larger organisations and departments traditionally only able to offer employment in the CBD.</td>
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| 15. Driving Change Perth and Peel Economic Development Strategy and Infrastructure Priority Plan (continued) | Perth and Peel | **Peri-Urban Development:** To ensure productive agricultural land is retained and leveraged at the same time as encouraging residential and urban development and lifestyle options.  
**Knowledge Economy:** To deliver globally respected knowledge precincts leveraging Curtin/Bentley and UWA - QEII as core knowledge assets to drive and grow world-class research, development and commercialisation programs in these institutions and the surrounding precincts.  
**Skills Development & Training:** To ensure local business and industry has access to the skills and development they need as managers as well as access to skilled employees. | |
| 16. Australia’s Economic Future, An Agenda for Growth | Australia | **Major Issues:**  
• Need for progressive reform agenda.  
• Improve the economic flexibility and productive capacity.  
• Respond to and plan for digital disruption and globalisation.  
• Understand the implication of automation, robotics and computer technology in Australia.  
**Key Observations:**  
Australia’s abundant natural endowment, and its skill at utilising it, has meant the nation’s sources of comparative advantage have not tended to be based in innovative endeavours.  
Constant innovation as the source of sustainable competitive advantage is leading to ‘superstar’ economics, where innovators take a bigger share of the winnings than ever before.  
**Major Recommendations:**  
• An innovation agenda that positions Australia on the technological frontier.  
• A National Productivity Policy to address unfinished reform and to remove inefficiencies from Australia’s economy.  
• An education strategy to improve the outcomes for all students and ensure that funds are spent well.  
• A workforce plan to improve the economic engagement of all segments of society, particularly underutilised segments.  
• Sensibly trying to respond to and mitigate climate change.  
**Detailed Recommendations:**  
Governments need to either reassign roles and responsibilities along with funding or adopt explicit models for sharing responsibilities to create dynamic efficiency. |
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<td>16. Australia’s Economic Future, An Agenda for Growth (continued)</td>
<td>Australia</td>
<td>The nation’s broad strategy adopted outside of the agriculture and resources sectors, has been to quickly copy technological and process innovations made elsewhere, rather than develop and bring to market new breakthroughs directly. This strategy gives a false impression of convergence: the nation may be close to the technological frontier but, in many respects, it is a long way from being able to move that frontier forward. The Australian Innovation System Report characterised Australian businesses as early and swift adopters rather than a first in the world developers.</td>
<td>Government initiatives, including funding criteria, to encourage universities to give significantly greater weight to performance in achieving the adoption, translation and diffusion of innovations, as have been implemented in Europe and the United States. Research and development (R&amp;D) focused public procurement programs, such as the United States Small Business Innovation Research program, and income-contingent loans, repayable from income generated by successful innovations – i.e. a funding pool that is recycled instead of once-off outright grants. Establishing Industry Growth Centres as hubs of R&amp;D and diffusion. Relevant industries are ones in which there are a number of firms, producing broadly similar products, that could all beneficially adopt innovations. Comprehensive regulatory review across all areas, with a view to culling unnecessary regulations. This should focus on: • Planning restrictions. • Retail trading hour restrictions. • Unnecessary product standards. • Pharmacy location restrictions. • Review overly restrictive licensing and self-regulation by various professions and ensure it is liberalised on a net social benefit test. • Review selective industry subsidies against a net social benefit test.</td>
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<td>17. Back to the Future – Western Australia's economic future after the boom.</td>
<td>WA</td>
<td>This BCEC Focus on Western Australia report highlighted significant shifts in Western Australia's labour market position in the post-boom period including: • Weaker demand, growing precariousness and reduced work hours after a sustained period of strong labour market performance. • Higher unemployment than the national average. • Inequality between top and bottom 20%. • Increase in casual employees. • Downward trend in full-time employment. • Higher rates of underemployment. Labour market future that is marked by weaker demand, growing precariousness and reduced work hours. Growing numbers of baby boomers extending working lives through ‘blended’ retirement transition pathways that involve part-time work, increasing the competition for part-time jobs by all age groups. The mining industry continues to maintain its dominance in the WA economy and the slowdown of the resources sector has done little to alter the distribution of employment across industries. The industrial landscape in WA has become less diversified in terms of GVA since the slowdown of the resources boom - contradicting the popular notion that new ‘growth’ sectors are emerging from other industries that are positioned to replace the mining sector as the primary driver of the State’s economic growth. However, there is some evidence of diversification taking place within the mining sector itself. The State’s industry profile is also getting slightly more diversified over time in terms of the workforce the industries employ. The relatively slow growth of industries that are especially important to regional economies – agriculture, energy, tourism and food among others - raises important questions around the degree to which the State’s regional economic blueprints are coordinated with State development plans to deliver the best outcomes for WA. The health care and social assistance sector is growing as the population ages. However, the sector also faces challenges related to high costs, and issues relating to low pay.</td>
<td>The State’s prevailing narrative for economic development has been a strong resources sector, combined with diversified growth in other sectors of the economy. Agriculture, food and tourism feature strongly in this narrative, but it questions whether these sectors are well enough positioned, or of sufficient scale, to continue the State’s growth story. Suggests Western Australia is set for a ‘new normal’ but indicates that this should not diminish the need for efficient, creative and imaginative policy settings to take full advantage of new opportunities for economic growth and future industrial development. Need for new, secure employment opportunities for the State’s workforce, however the labour market of the future – flexible, multi-faceted, portfolio-based – could be substantially different from the labour market of the past.</td>
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<td>18. From Paddock to Plate: WA's potential in agriculture and agribusiness</td>
<td>WA</td>
<td>The importance of Asia to the State's agricultural exports will grow in the future as Asian economies develop and as global demand for food changes. While innovation in agricultural production, increased capital intensity and efficient use of resources all point to agriculture as one of the State’s growth sectors, questions remain about whether this will lead to an expansion of jobs. Jobs in agriculture dropped from 5% of total employment in 2005 to 2.3% in 2016. WA’s South West has been a bright spot in job creation in the agricultural sector with a commitment to diversified production, commitment to high-quality, high-value produce and a strong regional brand.</td>
<td>• Streamlining the planning, regulatory and licensing processes required for new agricultural enterprises. • Greater coordination of regional development strategies. • Address tenure security to incentivise and de-risk investment in agriculture. • Proximity to Asia represents a tremendous opportunity for the export of fresh or perishable goods. • Coordinated State strategy to invest in supply chain; appropriate regulatory environment.</td>
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<td>19. Western Australian Innovation Strategy</td>
<td>WA</td>
<td>The strategy highlights the four pillars on which Western Australia’s innovation future will be built: • Talent and skills. • Investment and infrastructure. • Culture and collaboration. • Marketing and promotion. The Innovation Strategy focuses on delivering programs that enable Western Australians to capture opportunities and solve problems that benefit innovation. It aims to: • Create an environment where innovation, entrepreneurship and commercialisation are the norm. • Engage local business and industry partners to expand existing and future capabilities. • Make Western Australia a regional innovation hub by investing in local talent and providing the right opportunities to keep that talent here. • Encourage Western Australians who have achieved success elsewhere to bring their skills, expertise and experience home to help increase innovation locally. • Attract the world’s best innovators to relocate to Western Australia by emphasising our natural and geographic advantages and globally acknowledged excellence.</td>
<td>Talent and skills: • Continue to fund the Innovator of the Year, but review and expand the program, making it bigger, bolder, brighter and more inclusive. • Support relevant peak bodies aligned with the strategy and sponsor events that grow and showcase Western Australia’s innovation capability. • Provide incentives for innovations to be progressed to commercialisation, by providing prize money to competitions such as the Start IT Up WA Challenge. • Hold an annual Innovation Summit. • Require all Government agencies to have an innovation program consistent with the objectives of the strategy. • Provide funds to teach entrepreneurship. Investment and infrastructure: • Streamline the process to commercialisation by providing relevant support to innovators, disrupting traditional processes and reducing red tape. This will enable increased commercialisation of innovations. Support may include IP, marketing, productisation, commercial management and procurement.</td>
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| 19. Western Australian Innovation Strategy (Continued) | WA |  | • Implement an IP policy to make it easier to commercialise Government IP.  
• Provide funds for unsolicited bids for proposed innovations that meet a Government priority and help solve a problem (e.g. Shark App).  
• Continue to support and expand the Innovation Centre of Western Australia, in line with the review.  
• Create a university innovation commercialisation fund to help universities spin out commercial entities based on their own entrepreneurial activities.  
• Use Western Australian trade offices as landing pads for innovators to access international markets.  

**Collaboration, marketing and branding:**  
• Innovation vouchers.  
• Create an Innovation Portal.  
• Create a consistent brand and promote Western Australian innovations.  
• Develop strong links in key countries such as the United Kingdom and Singapore to assist innovators to access global markets. |
### 20. Scenarios for Western Australia's International Education Sector/Western Australia's International Education Sector: Performance and Prospects (21)

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| WA          | While total enrolments are growing, the State's share of international enrolments is in decline. Changes to the visa framework is thought to have impacted on international enrolments in WA. | * Need policy initiatives to enable WA to make up ground and increase WA's share of international enrolments.  
* Need a strategy for international education.  
* Strategic focus on destination marketing and market development.  
* Increased emphasis on enhancing student experience.  
* Partnerships and collaboration between government and industry including advisory council’s solely dedicated to international education. |

### 21. The Price is Right? An examination of the cost of living in Western Australia (22)

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| WA          | According to the Economist Intelligence Unit, Sydney is the most expensive capital city in Australia in 2017. Perth is fifth.  
In the most recent quarters, Perth's prices for food and non-alcoholic beverages, alcohol and tobacco, housing, furnishings, household equipment and services, health, transport, communication, and education have grown slower than for Australia. By contrast, clothing and footwear, recreation and culture, and insurance and financial services in Perth have experienced faster price growth than for Australia more generally.  
In general, Perth prices for clothing, housing and personal care are less expensive than for other capital cities while prices for selected housing supply items and recreation are relatively more expensive.  
The cost of a control basket of commonly purchased supermarket items is highest in Brisbane, at $246, and lowest in Adelaide at $217, among five Australian capital cities. For Perth the cost of the basket is $237, or third in terms of rank.  
A 2017 Demographia report found that with the exception of Mandurah, which has the lowest median annual household income among the regional centres, all the other centres are more affordable than Perth. | The cost of housing emerges as the greatest single living cost for most Australian households and the most critical factor in the risk of financial hardship for those on low and fixed incomes.  
Policy makers need to tackle the issue of housing affordability if they wish to have an impact on poverty and financial resilience within our community and ensure fewer vulnerable members of our community are left behind. |
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| 21. The Price is Right? An examination of the cost of living in Western Australia (Continued) | WA | Average wages have risen at a steeper rate than prices in WA between 2002 and 2017. Between 2002 and 2017, the WPI rose by over 60% while the CPI rose by over 40%.

The growth rate of wages and prices in WA appear to rise and fall in line with economic booms and downturns in the State.

During 2003-09, low-income households’ real income growth lagged behind high-income households, with the poorest 20% experiencing only an 11% increase in real income, while the richest 20% in WA reaped income gains of nearly 60%.

All quintiles experienced a smaller real income growth in 2009-15 than back in 2003-09. However, the richest 20% of households experienced the greatest reduction in real income of 8%.

The economic slowdown during 2009-15 appears to have hit regional areas harder, as they experienced an 8% decline in median expenditure. Median expenditure of families in Perth, on the other hand, has continued to increase, but at a lower rate from the previous period, reaching nevertheless, an 8% growth rate in 2015-16.

Perth households spend an extra 7 percentage points of their budget on housing than the rest of WA. This higher housing budget share occurs at the expense of a range of other items including basic expenditures such as food, domestic fuel and power, transport and health.

The gap between households in financial stress and the rest of WA has deteriorated over time, doubling its size from 2003 to 2015.

On average, nearly 70 per cent of the spending of households in financial hardship is devoted to the basic necessities of life – housing, fuel and power, and food. |
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<td>22. The Engine Room for Growth? The Role, Performance and Future Prospects of Small Business in WA</td>
<td>WA</td>
<td>Small business is important to the WA economy, directly contributing $39.7 billion, making it second only to the mining industry in terms of value added contribution. The small business sector in WA employs over half a million people – 41% of total employment in WA. The construction industry is the largest contributor to the small business sector in terms of the number of small businesses, the value-added contribution and the employment contribution. By business size, the small business sector was the only sector of the economy to show a growth in the number of businesses in 2016. This highlights the important role that small businesses can play in driving the WA economy forward. Hotspots of growth in small businesses in WA include Jandakot. Perth-based small businesses report the highest intensity of competition across all regions in WA. Fewer than one in ten small businesses in Western Australia export products and services to international markets, but among those that do, more than one third (37%) sell to Asian partners. BCEC Small Business Survey 2017 highlights areas of significant stress for small business including access to finance and cash flow, multiple responsibilities, and dealing with red tape.</td>
<td>• WA's geographical location, and particularly its proximity to Asian markets and alignment of time zones, create unique opportunities for the small business sector to grow its share of export sales into Asian markets in particular, and indeed beyond, to the UK, US and Europe. • There are skill deficiencies among small business owners, and opportunities for tertiary education and training institutions to develop courses that provide modern, practical business skills that are increasingly necessary for the modern small business, such as IT and communications. • Need for access to networks to drive innovation. • Innovation is more active within small businesses with 15-19 employees. • Access to infrastructure - mobile phone, internet broadband. • Access to finance. • Practice of late payment from large businesses to small businesses should be eradicated. • Small business owners are ageing – 33% of small business owners intend to exit within five years, primarily to retire.</td>
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<td>23. Power to the People: WA’s energy future</td>
<td>WA</td>
<td>The energy industry is on the cusp of a tipping point that will revolutionise the way that energy is consumed and generated and there is a need for the State to be ready for this change.</td>
<td>• Need to develop a roadmap for the State's energy future that integrates existing and new technologies from renewable and non-renewable sources and latent capacity of household solar PV installations. • Need to maximise productivity of all platforms while maintaining equity, reliability and security and minimising negative externalities. This will ensure that prices are competitive while delivering efficient equitable use of resources that will also deliver on low emissions targets. • Manage the challenge of non-renewable stranded assets as we shift to renewables. • Need for leadership, collaboration and a clear statement of direction for the energy future of the State.</td>
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| Creating Great Australian Cities | Australia | Examines megatrends facing the world’s cities; benchmarks Australian cities against cities elsewhere in the world; presents 12 case studies with lessons for Australian cities. Megatrends include urbanisation; ageing; technology change; globalisation of trade, supply and value chains; intensifying climate change; re-urbanisation of jobs and capital; rise of the innovation economy; rise of Asia; resource scarcity and energy convergence; infrastructure; and governance gaps. Disruptors are identified as economic, social, political and cultural polarisation; global instability; planetary pushback (climate change and weather extremes); increasing influence of China; revolutionised working habits (digital, mobile); game-changing systems technologies. Specific issues identified that are of relevance to Perth include:  
• Need for flexible business and regulatory frameworks to embrace transformational business models and disruptive technologies, as other nations and regions achieve ‘leapfrog’ development.  
• Shifting to a knowledge-rich and innovation-led economy as benefits accrue to first-movers and ideas-generators, rather than reactors and slow adopters.  
• Prioritising connections with global channels of trade to increase cities’ competitiveness, requiring investments in key connective infrastructure.  
• Competing on speed, skills and innovation instead of cost.  
• Pressure to compete on quality will be felt more in Australian cities’ services base.  
• Benchmarking identifies Perth as the worst performing metropolitan region in Australia.  
• Competitive advantage through concentrated economic activity in key metropolitan locations and efficient connection of people.  
• Drive for investment in renewable energy.  
• Reduction in jobs for low-skill workers.  
• Diversification of Asian cities that become sources of trade but also, in some sectors, competition. | Foundations:  
• ‘Whole city’ governance, leadership, vision, and storytelling are essential in order to organise growth and capture public imagination about the story of change and journey towards a high-amenity, medium-density metropolitan future.  
• Strategic planning that integrates all priorities and departments, overcomes the risk of siloed approaches and helps to ensure that public investment is used most efficiently.  
• A national framework that actively shapes urbanisation to achieve long-term national goals.  
• Long-lasting agreements, deals and partnerships between different levels of government enable policy and investment to be sustained over multiple political cycles, and provide more certainty that gives the private sector confidence to invest and to innovate.  
• Far-sighted civic leadership, improved citizen engagement to ensure that there is a positive psychology around processes of city change and densification, and that solutions are geared around what is proven to work. Mechanisms:  
• A consistent high rate of infrastructure investment and infrastructure finance innovation.  
• Use of public land, anchors and assets to deliver strategic goals.  
• Planning systems that are more adaptive to optimise the impact of infrastructure investment to promote and deliver optimal change in the most agile and transparent way, using data effectively, and capturing the full value of infrastructure investment.  
• A high-quality of placemaking, place management and tactical urbanism.  
• Master-planning and pooled public budgets for neighbourhoods and areas. |
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| 24. Creating Great Australian Cities (Continued) | Australia | • Much greater demand for education, healthcare and entertainment services, and credit and financial services, as well as high-quality products.  
• A rise of unemployment, precarious work, and less ability for workers to put down long-term roots in one city or one location.  
**Burning issues include:**  
• Need to attract and retain talent.  
• Rising dependency ratios.  
• Customers (Asia) are becoming competitive.  
• Risk of myth of the next commodities cycle: Australia is not yet optimising its role in commodities value chains and may find that commodities booms increasingly create the highest value jobs in other countries. | **Policy toolbox:**  
• Persist with municipal reforms, alternatively devise a ‘combined authorities’ model.  
• Enhance infrastructure funding and finance.  
• Drive the metropolitan and innovation economy.  
• Develop partnerships between private sector businesses.  
• Link major metropolitan regions with their neighbours. |
| 25. Making Reform Happen: Using incentives to drive a new era of infrastructure reform | Australia | • Australia is undergoing a period of sustained growth and change.  
• Infrastructure reform can boost Australia’s productivity and prosperity  
• Incentive-based funding approaches have been used before, with substantial success.  
• Reform can deliver considerable economic benefits to all Australian governments.  
• An ambitious reform agenda should be at the centre of any incentive-based funding approach. | • The Australian Government should establish *Infrastructure Reform Incentives*, which link additional infrastructure funding to the delivery of reform outcomes.  
• The Australian Government should use its unique position to lead national infrastructure reform.  
• The Australian Government should use an incentive-based funding approach to drive reform.  
• An incentive-based reform program should be exempt from GST calculations. |
<table>
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<tr>
<th>Report Name</th>
<th>Target Area</th>
<th>Key Issues Identified/Addressed</th>
<th>Recommendations/Goals/Actions</th>
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<tbody>
<tr>
<td>26. Future of Work in Australia - Focus on the States Series, No. 6/18[27]</td>
<td>Australia</td>
<td>Examines changing nature of employment, the quality of work, and considers the role of technology in the jobs of the future. Examines workforce statistics and outlines: • Increasing participation rates. • Increase in part-time work. • Service sector growth. • Increase in professionals. • Growth in freelance employment. • Employment is more precarious. • Overall workplace satisfaction is higher but fewer people are very satisfied. • Women are more optimistic than men. • Wage growth for males has stalled. • Implementation of robotics in Australia is relatively low to date. • Low skill employment share has decreased. • Majority of lower-educated males are employed in jobs that are at high risk of technological disruption. • IT's share of total tertiary enrolments has nearly halved between 2001 to 2016. Initial estimates of job displacement due to technological change may have been overblown. A commonly cited study that predicts that 47 per cent of jobs are at risk from automation has been widely criticised. Other analysts put the figure at around nine per cent. As this occurs, many occupations increase in skill level rather than disappear. Job loss estimates do not include the new jobs that will be created through the implementation of new technology. The net effects may well be positive.</td>
<td>• Need to work with technology to raise our productivity, eliminate the dangerous and routine tasks, and leave room to use our personal, creative and critical thinking skills. • Australian industry need to invest and compete in new and higher paying industry sectors, as well as a continuation of the growth in less automatable jobs and industries such as personal and human services, the creative industries, and artisanal trades. • Invest in education and training across the whole of people's working lives –by governments, individuals and industry. Industry needs to play its part too. • Shift the growing gender segregation in higher education, where women comprise three quarters of the growth areas of health and education, while men dominate engineering and IT. • Address lack of growth in domestic IT students.</td>
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<td>27. Two Year Action Plan for Tourism Western Australia</td>
<td>WA</td>
<td>Identifies strategic actions to grow WA’s tourism performance over the coming two-year period.</td>
<td>Positioning WA as the Western Gateway to Australia through: marketing strategies; targeted marketing in Asia; increasing packaging WA tourism; hosting trade events; improving direct aviation access; growing the cruise market; and working with key industry partners. Change perceptions of Perth and reignite east coast market: building trade relationships; tactical advertising; maximising leisure visitation from events; developing an events strategy; and delivering demand-driving visitor experiences, attractions and infrastructure. Attract more people to regional Western Australia: Actively marketing regional destinations and events; facilitate new tourism experiences; meet demand for Aboriginal tourism experiences; facilitate improved regional aviation access.</td>
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**Researcher – Gemma Davis**

Gemma Davis is a research, policy and strategic planning professional with 19 years of experience working in Australia, New Zealand and the Republic of Ireland. Gemma is a consultant for the Committee for Perth and was previously employed by the Committee as Manager of Research and Strategy.

Gemma is currently a Director with e3Scientific in New Zealand and is an Honorary Research Fellow with The University of Western Australia. Gemma has authored major reports for the Committee for Perth including *Towards a Bright Future* and *Get a Move On!*
References


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APP Corporation
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