

MANIFEST

Opportunity

Australia is one of the strongest economies in the world. We are rich not simply in our natural resources, but also in our magnificent environment, pristine agricultural supply chain, extraordinary indigenous heritage and resourceful and creative people.

We deserve much more than an age of ignorance. We need leaders who put innovation, entrepreneurship and long-term thinking ahead of sound-bite opportunism – leaders who trust in independent analysis and objective decision-making, not party-political rhetoric.



Nigel Lake
Founder and
Executive Chair



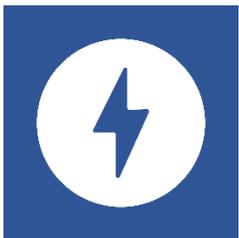
Asian trade and investment is the key to Australia's long-term prosperity



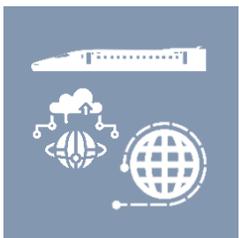
Innovation and entrepreneurship is essential to our long-term prosperity



Our pristine **natural environment** is important to agriculture and tourism



Energy policy must be forward-looking and economically rational



Infrastructure investment must ensure better physical and digital connectivity



Cost-effective **social welfare** shares and protects our ongoing prosperity



The **character and behaviour** of our leaders defines who we are as a nation





Nigel Lake
Founder and Executive Chair

11th April 2019

Fellow Australians

Australia's success over the last thirty years has been driven by a once-in-a-lifetime leap in demand for our natural resources. This created a massive boom in mining construction and, looking ahead, commodity exports will continue for several decades, driven by ongoing Asian industrialisation and urbanisation.

For the last decade, some politicians have chosen to fan the flames of bigotry and racism. Others have brought divisive politics and wildly ill-informed rhetoric to the most important issues that face our society, including international trade, infrastructure, energy policy, social welfare, the response to climate change and environmental matters such as our river systems.

Though this extraordinary negativity may have earned attention on social media and plenty of column inches, it has been damaging to Australia's economic development. Similarly, though the shameless internal party politicking may have won some people power or helped to unseat political opponents, it has left politicians more poorly regarded than almost any other member of society.

It's time for something different, and it's time for something better.

As we judge the electoral promises on offer in this election, there are seven areas that are key to Australia's future economic and social prosperity. Never mind the leaders involved: a party that does not bring well thought through answers to these challenges does not deserve the trust of the Australian people.

Meanwhile, the only way to address the rapid pace of technological change is to ensure every short-term decision is driven by long-term thinking. Like driving down a motorway, the faster you travel, the further ahead you need to look if you want to be safe. In contrast, short-term political opportunism has been bad for Australia, and indeed it has often been even worse for the politicians concerned.

Let's look up from party politics and make more of our amazing country.

Yours sincerely,

Asian trade and investment

Much of the world's future economic growth is concentrated in Asia. Australia's geopolitics must recognise these shifts, and businesses must emphasise offshore growth.



China will become the largest economy



1 bn+ affluent Asian customers



Huge advantage from Asian connectivity



An outward-looking mindset is critical

The natural resources boom has driven much of Australia's success over the last thirty years, with offshore demand for coal, iron ore and natural gas making Australia one of the world's largest exporters. Demand for the latter two will continue for at least several more decades at least.

The downside, however, is that these hugely capital-intensive projects created relatively little employment once the construction phase was over. And those that are owned by foreign interests channel their profits offshore, so they create relatively little benefit for Australia. So Australia's resources exports cannot, by themselves, ensure Australia's future prosperity.

Fortunately, great opportunity lies at our doorstep. The growth of the Chinese economy, and many others in Asia, will dwarf the USA and Europe for decades to come, driven by inescapable economic forces. These economic shifts are seismic in importance and are as predictable as night following day. As a result, Asia's middle class will expand by a billion people over the next 10 to 20 years. This will create huge ongoing demand for other major Australian exports, including food and agricultural commodities, as well as soft exports such as education and tourism.

These shifts are already apparent in our airports, cities and shopping centres, but to capitalise on them fully, Australia's trade agenda should centre unapologetically on Asia, and on extending Australia's global relevance beyond resources. There are six critical areas on which the Australian Government should focus.

First, Australia must continue to develop its economic and political relationships in the Asia-Pacific region.

This will build on existing arrangements, including the revised Trans Pacific Partnership (the Comprehensive and Progressive Agreement for Trans-Pacific Partnership), which has now been ratified by Australia, Canada, Japan, Mexico, New Zealand and Singapore. The annual heads of government meeting with China

should be reinstated, and efforts to broaden and deepen senior relationships in both business and government across Asia should continue.

In pursuing this objective, it remains critical to understand how the cultures and objectives of each nation differ from each other, and indeed from our own perspective.

Second, Australia must shoulder its geopolitical role in the region with confidence. Australia is the world's 14th largest economy, and will continue to occupy a strategically important physical position in the South Eastern half hemisphere of the world. As the only major land mass between Africa and South America – and owner of several critically located islands in the Indian and Southern oceans – Australia is a critical staging post for any nation wanting to project power in the region, as America is well aware. This provides a helpful balancing influence between the USA, China and Japan, a role that Australia should continue to play with confidence.

Australia should also seek much stronger economic ties with the UK and Canada, particularly in relation to areas such as technology and financial services. These three countries share several common elements of history, including both European and indigenous heritage, cultural diversity, and relatively progressive, outward looking politics. Together, these three nations represent a slightly larger economic block than Japan. To each other, they represent relatively attractive export markets that have familiar business cultures and practices, making a natural pathway for business development.

Much more could and should be done to build relationships between the countries, and to showcase the success stories. As physical proximity becomes less and less important to international trade, the opportunities for closer collaboration between these nations become greater and greater.





Continue to deepen relationships with Asian trading partners



Support all exporters as well as expatriate entrepreneurs



Leverage our geopolitical importance for national advantage



Reposition Austrade and EFIC to support tech and other exports



Build stronger economic ties with both the UK and Canada



Create a meaningful and powerful "Brand Australia"

New initiatives are required to support exporters of goods and services as well as expatriate entrepreneurs. These include changes to the operation of the export markets development grants, which are strongly biased to traditional exports of physical goods. Much greater recognition is needed of the role played by exporters of services, as well as of the very different requirements of Australia-based tech companies seeking to expand globally.

We should demand that our leading companies adopt a more outward-looking strategic approach, seeking to build growth offshore, rather than depending too heavily on comfortable oligopolies at home. Whether they will do so, of course, remains to be seen.

We must urgently consider the role played by Australian entrepreneurs who are building significant businesses headquartered offshore and the opportunities that this may create to support and encourage greater entrepreneurship at home.

In pursuing these objectives it's important to recognise that the nature of international trade and business development will change. As a result, **the approach and focus of both Austrade and EFIC should be repositioned** to better match the emerging opportunities. This would entail a stronger focus on providing services designed to support IP-rich, technology-focused exporters and inbound investors, as well as prospectively ever closer co-operation between these two organisations, to maximise their reach and impact.

Finally, Brand Australia needs to be reimagined to fit a more progressive, export-oriented brief. New Zealand has built a powerful voice in international markets through the application of its highly effective "100% pure New Zealand" brand, which is equally relevant to agricultural exports and inbound tourism.

Similarly, the UK's endlessly adaptable "Everything is Great" campaign neatly captures both the history and

prospects of world-leading capability across many industries and segments, and has proven to be highly effective.

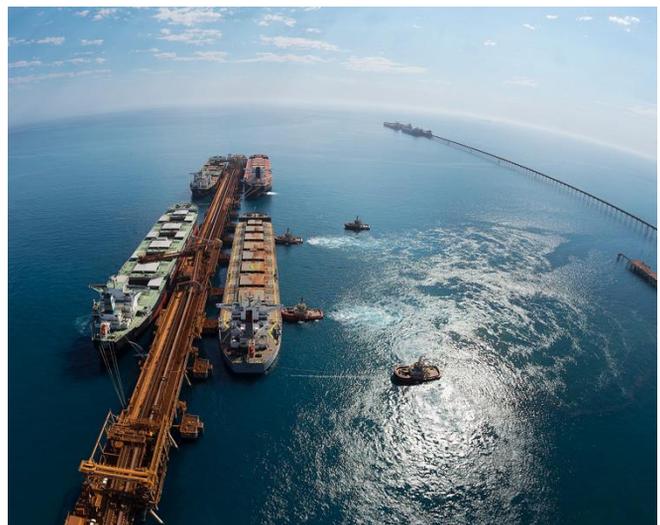
As yet, Australia has no widely-recognised brand or brand essence, other than that we are a huge country that is far away.

In short, both Australia and Australians are popular, but no-one really knows what type of party to invite us to, or where to send the invitation.

This is, admittedly, a slippery challenge to solve, but one that is of fundamental importance to the nations psyche and longer-term success.

Finally, it is notable that both US and UK politics has shifted in the direction of short-term political opportunism, often with little grounding in economic or scientific reality. In contrast, much of China's domestic and foreign policy is geared towards delivering sustainable economic and social prosperity over much longer time frames.

No one trading partner is a panacea for Australia's growth, highlighting the importance to Australia of adopting a confident, truly international world view, but Asia's long-term mindset and long-term growth prospects must be our centre of attention.



Innovation and entrepreneurship

The Robot Revolution will consume jobs rapidly – urgent action is needed to create new businesses that in turn create new employment opportunities.



Robotisation will accelerate



Jobs are being eliminated



Real wage growth is already very low



We must create new, well-paid jobs

Entrepreneurs and innovative businesses create significant economic value, as well as new jobs to replace those that are lost as a result of productivity improvements and the death of old-economy businesses. These people and organisations respond more rapidly and more confidently to technological change and the opportunities that these create.

Innovators and entrepreneurs see opportunity where others see risk. They are biased towards the future, rather than the past.

Every aspect of government policy should recognise the importance of entrepreneurship and innovation. Australia’s leading sporting teams did not surpass their competitors globally by adopting a “she’ll be right, mate” philosophy and celebrating how the game was played decades ago. If we want to win as a nation – economically, politically and socially – then we need to set our sights on much more ambitious prizes, as other nations in South East Asia are doing.

Above all else, entrepreneurs need people and businesses to adopt their products and services. Many also need investment to support the launch and early growth of their businesses. They will also appreciate a little encouragement from those who would prefer to watch, rather than stride out onto the playing field themselves.

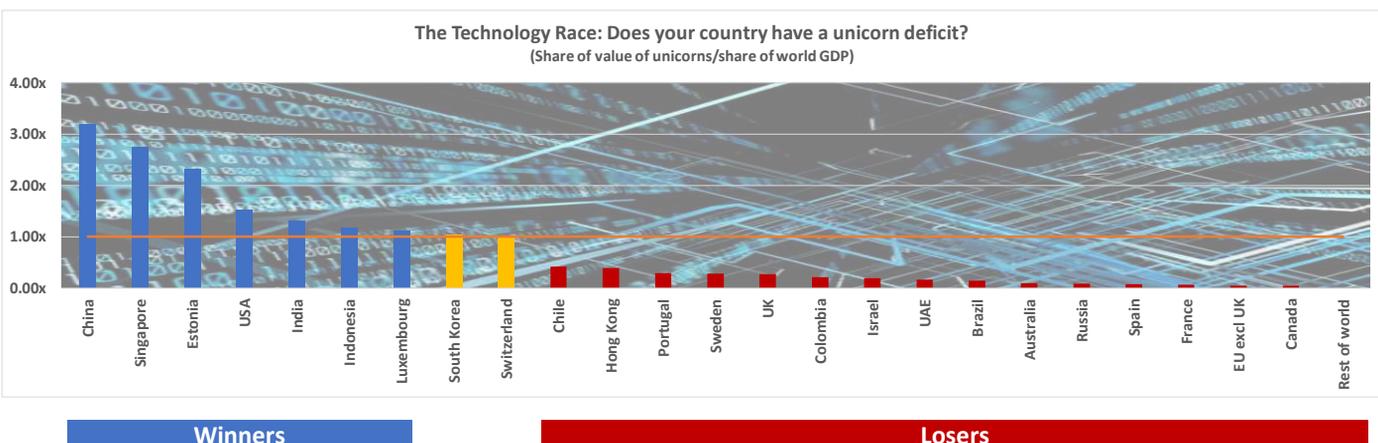
There are several fields in which Australia is particularly well placed as an innovative and entrepreneurial nation. These include:

- ❑ Many areas of **healthcare and life sciences**, witness the success of companies such as Cochlear and CSL;
- ❑ Industries where Australia has longstanding competitive advantage, such as **agriculture, education and tourism**;
- ❑ **B2B technology** businesses, as evidenced by startups such as Atlassian, Canva and Nearmap; and
- ❑ New industries of global significance such as **quantum computing**, where Australia is home to one of the world’s leading research programmes.

Decisive action is urgent. Like most countries, Australia has a massive deficit in new economy businesses.

One measure of this is our nation’s share of so-called unicorns – start-up companies that are valued at more than US\$1billion – as shown in the chart below.

Atlassian has shown what is possible with the right idea, strong ambition and a global mindset. Founded by UNSW graduates Mike Cannon-Brookes and Scott Farquhar in 2002, it listed on NASDAQ in 2015 and now has a market value of around A\$37.5 billion.





Government should act as an early mover in adopting new technologies



Cut medicine and device approval times to match the USA and Europe



Encourage and reward investment in start-up businesses



Celebrate entrepreneurship through a national programme of awards

There are four practical ways in which government should act.

Invest in new technologies

First, governments should set aside at least 1% of relevant budgets (such as technology spend) and dedicate this to trialing new products and services. This addresses one of the most critical barriers to success for B2B tech companies in particular, which is securing early paying customers. Importantly, there should be no requirement to adopt Australian technologies per se. There must, however, be an emphasis on support for companies that have an operational base in Australia and who thus create jobs domestically.

In considering the economics, remember that Australian B2B tech businesses of this nature are typically valued at around 5x revenue. The most successful are valued at 10x to 30x revenue, and indeed higher valuations are more common in the USA and China. In any event, a successful tech start-up that has \$1m of recurring annual revenues might be able to secure a further \$1m of investment for a shareholding of just 10%. Buying their services creates a huge leverage effect when it comes to capital raising.

Encourage and reward investment

Second, government should implement measures that encourage and reward investment in innovative companies. These include IP-rich businesses in areas such as the life sciences which generate globally relevant, defensible IP and significant long-term employment opportunities, as well as start-up businesses more generally. These measures should include implementation of a structure analogous to the US limited liability company, to allow early operating losses to be shared among investors and written off as they are incurred against other taxable income.

Any new tax structure that is proposed should also include measures designed to ensure that ownership of the business and underlying intellectual property

remains onshore in Australia over the medium to long term. These could include higher capital gains taxes for businesses where ownership passes offshore too early, and/or roll-over relief for capital gains on such investments that are reinvested in early stage businesses.

Recent changes in the R&D tax credit regime should also be revisited, given the negative impact on some of Australia's most successful companies, and adjustments should be made to the export market development grant so that it better supports the export of IP-rich services.

Cut medical regulatory approval times

Third, government must act urgently to reduce the length of time taken for new medicines and medical devices to obtain regulatory approval. Australia's current regime takes two to three times as long as those in the USA and EU, meaning that local products are at a dramatic disadvantage compared to those manufactured in major offshore markets. This creates a perverse incentive for Australian businesses to shift manufacturing offshore, as delayed approval locks companies out of around a third of the world market (including China), as those countries require home country approval before local approval is granted.

Celebrate successful entrepreneurs

Finally, to emphasise the importance of entrepreneurship and innovation to Australia's future, the government should implement national "Entrepreneur of the Year" awards, run in an analogous manner to the Australian of the Year awards, to recognise individuals or teams who make an outstanding contribution to the development of Australia's through entrepreneurial activity. Categories might encompass different segments of the economy, including business, agriculture, investment and the government sector itself.



Our natural environment

Australia's pristine natural environment is important to both agriculture and tourism, as well as our quality of life. We must invest in it wisely and protect it from harm



Demand from Asia
will grow rapidly



Our agricultural
capacity is limited



We must focus on
quality, not quantity



We must protect our
unique environment

Australia's agricultural sector was once the bedrock on which the economy was built. To this day, the sector is still an important part of the nation's exports. More broadly, our pristine natural environment underpins our quality of life and contributes to the ongoing growth of our tourism and leisure industries.

Most Australians were horrified to read about the collapse of the Murray Darling ecosystem, resulting in the mass deaths of millions of fish. This was followed shortly thereafter by the destruction of hundreds of thousands of head of cattle in North Queensland, as a result of catastrophic flooding. Meanwhile, almost every year brings new reports of damage to the Barrier Reef, one of the most iconic parts of Australia.

Looking forward, the emergence of a substantial middle class in Asia is creating significant new demand for Australia's food exports, especially for protein. The latter is significantly more intensive in agricultural terms and – whilst this creates some environmental challenges – the fact remains that there will be a significant opportunity for Australia's farmers.

Importantly, Australia has only limited capacity to meet this demand. Australia must concentrate on the demand for high quality produce, rather than simply quantity, thus making the most of Australia's pristine supply chain. Australia's non-GM crops also attract significant price-premiums in Asian markets.



The prospective impact on farm gate profitability of a shift to premium products is substantial – so long as the growers in question find a way to participate in the value that is created further down the supply chain.

In developing agricultural and land use policy, great care must be given in decisions related to the use of water. This has long been a sensitive and highly-politicised issue. This means it is all-the-more important that policy-making is properly informed by scientific study and long-sighted economic analysis.

Meanwhile, inbound visitor numbers from Asia in general and China in particular continue to grow. In 2018, Chinese visitors exceeded New Zealanders for the first time, generating A\$11.7bn in spending. These trends are driven by long-term demographics, and will continue for decades to come.

There is an enormous opportunity for further investment in Australia's tourism industry, both to improve the quality of existing destinations, as well as to open up regions of extraordinary natural beauty to visitors from Asia and beyond. In doing so, care will be required to protect the natural environment, and cultural sensitivity to embrace and make the most of the nation's extraordinary cultural heritage.





Acknowledge the value created by our natural environment



Encourage the development of new sources of equity for farms



Improve the management of our environment, informed by science



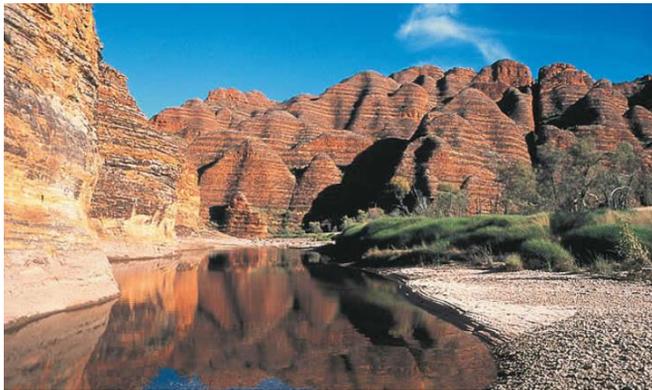
Invest in infrastructure to open up the North of Australia to tourism



Improve export logistics for agricultural production



Provide cost-effective mechanisms to insure against catastrophes



To make the most of Australia's natural heritage, there are six areas that government policy must address.

Acknowledge the value of nature. First and foremost, much greater recognition must be given to the value created as a result of our natural environment, both on the land and around our coasts. There are many areas of policy where a philosophical shift is needed so that proper recognition is given to the longer-term economic impact of short-term decisions related to the environment.

Improve the management of our environment. Environmental decision-making is fraught with political sensitivity. Recent disasters in the Murray Darling river system amongst others highlight once again that decision-making needs to be driven by objective scientific and economic analysis and long-term thinking, not short term political expediency. This should, in turn, help to *reduce* the political risks associated with such decisions, something most politicians should welcome.

Invest to improve agricultural export logistics. Whilst large scale sectors such as grain benefit from excellent domestic and export logistics, emerging sectors need support to develop supply chains that ensure international markets are addressed effectively and the high margins that result from the quality of our production are captured at least in part by growers.

Develop new sources of equity for farms. Relatively little equity is available to support investment in the agricultural sector. New sources of long-term capital are required, particularly if more efficient, larger projects are to be realised. This will be particularly important for industrial-scale initiatives such as those designed to harvest and store floodwater which would otherwise eventually be lost to the ocean.

In this context, careful consideration needs to be given to foreign investment matters. Whilst there has been caution regarding inbound investment into agriculture from some countries, in some cases this may have been the only available source of capital, without which the projects in question would not proceed.

Invest to open up Northern Australia to tourism. Australia's far North is poorly served, with Darwin being the only international airport between Cairns and Port Hedland. Whilst this reflects sparse population density in those regions, there are opportunities to develop significant tourism and leisure projects to serve rapidly growing Asian markets.

Provide cost-effective catastrophe protection. Finally, a national scheme should be introduced to provide agricultural producers with cost-effective catastrophe insurance, along similar economically sustainable lines to the national terrorism risk reinsurance scheme.



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Energy policy

Australia must set forward-looking energy policies that are economically rational and take account of technological change. In practice, this will benefit the environment too.



Abolish subsidies that distort decision-making



Provide support for regions impacted by industrial shifts



Provide government support to remove economic friction



Encourage and plan for the shift towards electric vehicles



Police anti-competitive behaviour by incumbents aggressively



Work towards the right end-state network design from the outset

Infrastructure investment

Australia's huge cities and declining physical and digital infrastructure are combining to undermine our way of life – investment must focus clearly on the long term



Create a "Reserve Bank" equivalent for infrastructure



Invest to improve broadband connection speeds dramatically



Take urgent measures to create new population centres



Invest in tourism-related infrastructure and related services



Build high speed rail between Sydney, Melbourne and Brisbane



Embrace new funding, financing and delivery models

Social welfare

Cost-effective social welfare ensures that Australia's prosperity is shared broadly through society and helps to protect our nation's high quality of life



Improve the affordability of further education



Update our social welfare system to better address inequality



Increase access to vocational training and retraining initiatives



Preserve the accessibility and cost-efficiency of our healthcare system



Evolve school education to prepare for extensive robotisation



Adapt retirement and aged care to reflect increasing life-expectancy

Energy policy

Australia must set forward-looking energy policies that are economically rational and take account of technological change. In practice, this will benefit the environment too.



The energy debate needs rebooting



Economics favour new technologies



Nearly all leading investors agree



There will be many knock-on benefits

Energy is one of the most fundamental human needs. Sadly Australia's political debate on the economics of new energy technologies has been dreadful in its ignorance of technological development and what this means for changing economics.

To escape this vortex, Australian energy policy must be designed to allow competitive forces maximum freedom, whilst of course ensuring the stability of the overall energy system. In practice, as the Australian Energy Market Operator has confirmed, the latter is entirely manageable. So we can focus on how new technologies are changing the energy equation.

As context, remember that solar energy and wind power are nothing new. These technologies have been developing for many decades. Two million households already generate at least some of their household energy through solar PV, as do hundreds of thousands of boat and caravan owners.

The cost of generating energy from these sources has fallen by around 15% annually for many years. This is equivalent to about 80% every decade or so. Today, solar energy is *cheaper* to build and operate than coal-fired power stations, and prices will continue to fall as the technology continues to improve. In contrast, the cost of energy from coal and gas has continued to increase over the long term. This has happened because renewable energy sources continue to benefit from Moore's Law type efficiencies as technology improves, whereas century old technologies have more or less reached maximum possible efficiency.

This is not a religious view. It's simply science and economics. Forward-looking countries such as China are already well-advanced on this path.

Private sector investment flows reflect these views too – there is a massive amount of capital available to fund renewable energy projects, whereas most mainstream equity investors and bank lenders will no longer invest in coal-related projects.

The cost of storing energy is also falling rapidly too, for

the same reason. This means that Australia is fast approaching the point for where it will be cheaper for some end users to invest in energy storage than it is to maintain the full reach of electricity distribution and transmission networks (let alone build new ones).

As with many technological changes, developments in one area can have a significant impact on the entire industry. Renewable energy can be generated cost-effectively at very small scale, including on domestic roof-tops.

As a result, where energy is used and where it is generated are changing, impacting the role and economics of the distribution grid. When the entire cost of providing energy (ie generation, transmission, distribution and storage) is taken into account, local renewable generation plus storage may soon be cheaper than the conventional approach – indeed in locations which necessitate greater investment in transmission and distribution, this is already the case.

Meanwhile, the fast-approaching transition to electric vehicles will significantly reduce overall household energy use (as petrol consumption will fall) but will moderately increase the amount of electricity consumed at home, adding an important dynamic to energy markets.

This transition offers a significant global advantage to Australia, as the country benefits from amongst the highest levels of solar energy per square metre of any country in the world. This means that we derive more energy from any given solar energy installation.

Australia can thus become a global leader in how to manage this renewal, in urban planning, community development and financial investment terms, just as it has been in infrastructure investment more broadly over the last couple of decades.

To manage this transition effectively, there are six policy areas that will help to ensure that competitive forces help to drive an outcome that is in the best long-term interests of Australia.





Abolish subsidies that distort decision-making



Provide support for regions impacted by industrial shifts



Provide government support to remove economic friction



Encourage and plan for the shift towards electric vehicles



Police anti-competitive behaviour by incumbents aggressively



Work towards the right end-state network design from the outset

Abolish subsidies. To ensure a level competitive playing field, all subsidies for fossil fuels in any form should be abolished. At the minimum, any fossil fuel subsidies that are retained should be matched dollar for dollar by subsidies designed to encourage an accelerated transition to renewable energy and increased emphasis on household energy efficiency.

Remove economic friction. Given the huge amount of private sector capital available to support the transition to renewables, little if any government investment should be required. Energy market structure must, however, change – and government support can help to smooth this transition. One approach would be to create some form of central clearing house for power purchase agreements, to make it easier for new energy suppliers to secure long term power supply agreements from end-users.

Police anti-competitive behaviour. The restructuring of Australia’s energy markets will create significant disruption for large, incumbent businesses. Regulators including the ACCC must watch the corporate sector closely, to ensure that anti-competitive behaviour does not undermine competitive market forces.

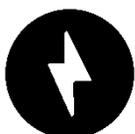
Support industrial restructuring. The changes in the energy sector will create many new employment opportunities but will also result in significant job losses in some communities, including those involved in fossil-fuel power generation. Australia will benefit materially from the transition to renewable energy, so it is important that a little of this upside is set aside to help those who bear the brunt of this once in a century transition by investing to support the development of new employment opportunities in these regions.

Encourage an early shift to electric vehicles. With one of the most urban populations in the world, Australia is ideally placed to benefit from this transition. Whilst range is often cited as a barrier to this shift, the average car in Australia travels just 225km to 275km a week. This is well within the range of the current crop

of electric vehicles, even with a single weekly charge. This would be a further significant step that achieves an urban trifecta, improving overall national energy efficiency, reducing emissions, and benefiting the environment. Simply acknowledging this shift is all that is required from government.

Build the network of the future. Over the next 20 years, Australia’s energy system and power distribution networks will need to change significantly. To maximise efficiency, we must start immediately to ensure that all near-term investment decisions are guided by a clear understanding of what the end-state network will look like, taking into account where energy is generated and where and how it is used.

This approach would allow Australians to see our Paris Agreement commitments as opportunities, not obligations. Not only will power become cheaper, but building our reputation as one of the cleanest nations on earth will benefit our massive exports of agriculture and tourism, and potential education exports too, given the positive implications for the quality of life that Australia offers. There should, of course, be no government support for projects that undermine this agenda. Why should inbound tourists heed advertising campaigns urging them to visit the Barrier Reef, if they think Australia cares more about coal exports than its marine environment?



Infrastructure investment

Australia's huge cities and declining physical and digital infrastructure are combining to undermine our way of life – investment must focus clearly on the long term



Our population is growing strongly



Our cities are already too large



Rail infrastructure is transformational



Digital connectivity must be improved

As many Australian politicians have discovered, it's much easier to talk about infrastructure than to get it built. Politician after politician has promised major infrastructure improvements, but few have delivered.

Given Australia's huge landmass, it is somewhat bizarre that 90% of the population is concentrated in a small handful of large cities. Roughly 20% of the entire population lives in each of Sydney and Melbourne.

Australia's challenge is that its island nation status is replicated by its cities – each a huge megapolis separated from its neighbours by vast distances.

This compares to just 2.6% of Americans who live in New York. Sydney and Melbourne would each rank as America's second largest city, and Brisbane, Perth and Adelaide would all make the top ten.

America is, of course, no longer any paragon of infrastructure virtue - its roads, bridges, airports and utilities are literally falling apart, and few States have the resources to effect the renewals that are so desperately needed. So learning the lessons from its infrastructure failures is as important as those of its earlier successes.

Part of America's challenge is that it was early to build long distance rail infrastructure that opened up the nation, and followed this with highway infrastructure

in the 1950s and 1960s. Its failure, however, was that States failed to plan far enough ahead of urbanisation and phenomenal population growth, and as a result many overlooked the importance of effective urban rail transport networks.

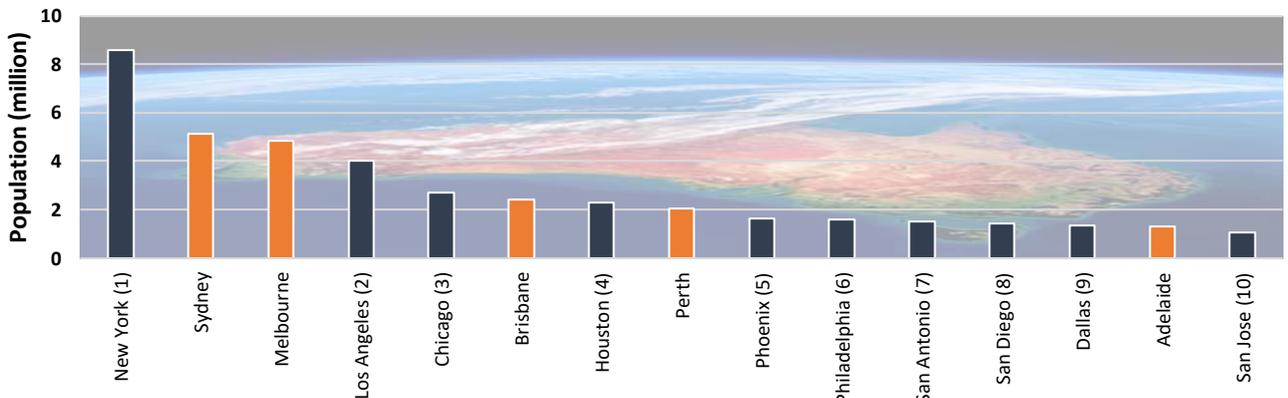
As an example, the fastest way to cover the 17 miles from New York city centre to JFK remains the car, though the journey frequently takes an hour or more. Shanghai's maglev train covers a similar distance in just eight minutes.

Meanwhile, Australia's digital infrastructure is fast becoming a road-block to success. Fixed line broadband download speeds now rank Australia 59th, far below our economic position, and well behind many of our Asian counterparts. We do have decent wireless download speeds, but these are no match for fibre for business connectivity.

Soundbites don't improve commuting times or connect communities, so it's essential that Australia introduces new measures to prioritise, design and deliver the infrastructure required to fund long-term growth.

Bold, long-term thinking is required if ever Australia's infrastructure is to be reshaped to create a much better connected nation, both physically and digitally.

Comparison of Australian and US cities (US ranking)





Create a "Reserve Bank" equivalent for infrastructure



Invest to improve broadband connection speeds dramatically



Take urgent measures to create new population centres



Invest in tourism-related infrastructure and related services



Build high speed rail between Sydney, Melbourne and Brisbane



Embrace new funding, financing and delivery models

These six key measures are of critical importance.

Create a "Reserve Bank" equivalent for infrastructure.

Just as interest rate decisions have been placed in the hands of an independent reserve bank, decisions regarding the prioritisation and extent of Federal subsidy for larger infrastructure projects should be put in the hands of an independent National Infrastructure Commission. In practice, this could be built on the foundations of Infrastructure Australia. Its mandate would be to assess the readiness of projects put forward by the States and Territories, prioritise these projects, and (where appropriate) providing a level of funding support for them, using money allocated to the Commission year by year out of the Federal Budget.

This body would also provide a central repository of best practice and expertise for project design, development, funding and delivery. Thus Federal Governments would choose the amount of money to be devoted to large scale infrastructure projects over the course of their terms, but decisions regarding where and how that money was invested would be placed in the hands of a more independent body.

Act urgently to create new population centres. The huge concentration of Australia's population in a small number of cities has made housing unaffordable for many in society, and is creating increasingly difficult infrastructure challenges. Federal, State and City Governments need to work together to encourage the growth of new centres of both population and employment opportunity outside the major capital cities. The ongoing digitisation of the workplace makes this increasingly easy to achieve, so long as the right transport systems are in place to connect remote workers and populations with the major centres.

Build high speed rail between Melbourne, Sydney and Brisbane. The Sydney - Melbourne and Sydney - Brisbane air routes are among the busiest in the world by passenger traffic. Despite some of the opposing commentary, the demographics and economics are

well-suited to high speed rail, and indeed Japan's JR Central has maintained an Australian office for over 20 years, waiting for Australia to realise HSR's potential.

The creation of this network would dramatically improve the connectivity of all the intervening cities too, opening up new areas of the country to development (where water availability permits). And, before you say that Australia's too small or too poor to afford high speed rail, click to [watch my presentation](#) at Parliament House a couple of years ago.

Improve broadband connection speeds. The shameless politicisation of Australia's NBN Project has led to a series of short-sighted policy choices, many based on religious conviction rather than technical fact. Australia's fixed line connection speed ranking has now fallen to 59th globally. Speeds are a quarter of the US average and a little more than half the world's average. Better connections are provided free on New York's subway system. Australia will be left behind in the digital age if it clings to out-of-date technology.

Invest in tourism-related infrastructure and services. Inbound tourism remains one of Australia's most important exports, and has the potential to expand substantially over the medium to long term. However much of the existing travel infrastructure is geared towards Australia's major population centres and domestic travel needs. Many of Australia's more spectacular natural wonders are not well served, and much of rural Australia has poor air connectivity. There are economically and environmentally viable ways to address these challenges, and their implementation would benefit both local communities and Australia's economy as a whole.

Embrace new models for funding infrastructure. With all major infrastructure projects, the burning question is how to fund the associated cost. In other words, which end consumer(s) will eventually pay for the cost of the infrastructure concerned? There are many potential solutions to these challenges, as we outline in our [Building Australia](#) white paper.



Social welfare

Cost-effective social welfare ensures that Australia's prosperity is shared broadly through society and helps to protect our nation's high quality of life



Australia has huge natural wealth



This has underpinned long-term growth



Social welfare shares our natural prosperity



It also protects our economic growth

Australia's national prosperity derives to a significant degree from its extraordinary wealth of natural resources. These made Australia one of the world's leading agricultural producers, and in recent decades has allowed development of some of the largest resources projects globally.

In part due to this inherited natural wealth, Australia has benefited from nearly 30 years of uninterrupted economic growth, a record for any major economy in the post war period, and Australia has amongst the highest GDP per head of any major economy. Given the historic drivers of Australia's economic performance, it seems only appropriate that the country should have a strong social welfare system.

Australia regularly features in the top ten countries globally for overall quality of life, and its major cities are regarded as some of the most liveable globally. An effective welfare system – including healthcare, education, aged care, and unemployment and disability benefits – has been an essential part of Australia's social contract for generations.

No matter what the short term pressures to balance budgets and tackle other policy priorities, maintaining Australia's overall living standards will help to define our success in the 21st century. There are also many

wider benefits for the economy.

Everyone benefits from the country's excellent and highly cost-effective healthcare system, and related medical science and technology research activities have created several highly valuable companies. The education system provides a sound start for most in society and is also an important source of export earnings. Meanwhile, unemployment benefits and the National Disability Insurance Scheme provide an important safety net. Importantly, taken together, effective welfare also helps to mitigate the negative effects of wealth polarisation on our society.

Standards are, however, slipping in some areas, and too many people still fall through the cracks in the system. The cost of university education has increased significantly, and vocational training opportunities provided through the TAFE system have been cut back. The roll-out of the NDIS has been patchy, and aged care services remain patchy and expensive.

As the next technological revolution will increase productivity but also undermine real wages, it is essential to remember the critical role that social welfare can play in stabilising the economy during periods of disruption.

The Economist Intelligence Unit "Where to be born" index and ranking





Improve the affordability of further education



Increase access to vocational training and retraining initiatives



Evolve school education to prepare for extensive robotisation



Update our social welfare system to better address inequality



Preserve the accessibility and cost-efficiency of our healthcare system



Adapt retirement and aged care to reflect increasing life-expectancy

Huge changes are approaching, driven by the likely automation of many jobs over the next decade. Whilst this will lead to productivity gains, it will also increase downward pressure on real wages substantially. For more context on these issues, please read my paper [The Future of Society](#) (with Prof Jorgen Randers, 2018).

As a result, it is more important than ever that we have a cost-effective, resilient and generous social welfare system covering the entire lifetime of every Australian.

Make further education more affordable. Australian university fees have escalated significantly. Although the HEX system provides some protection for students, government funding cuts means that there is a real risk that education costs escalate further, creating a massive burden on younger members of society (remembering that many older people benefited from free university tuition).

Increase funding for vocational training. Courses delivered through the TAFE system provide a cost-effective way for workers to build skills, either at the start of their careers or mid-career. There should be near-term economic benefits in increasing funding, and continuing to adapt the nature of courses to suit evolving needs of the workplace.

Prepare the curriculum for robotisation. Dramatic changes are approaching, which will significantly increase the importance of caring, cultural, communication and creative skills. The education system will need to adapt to address these developments, and the current emphasis on STEM subjects must evolve to reflect changes in the way these types of skill will be relevant to the workplace.

Update our social welfare system to better address inequality. Advances in AI and other technologies will eliminate many jobs, including numerous relatively sophisticated and highly-paid middle and senior management roles. The evidence of history is that employment will be preserved, but that there will be significant downward pressure on real wages. Put another way, more and more of the value created in

the economy will accrue to the richest members of society, leading to increased polarisation of wealth. As these people tend to spend a much smaller proportion of their income, this will very likely result in reduced economic growth. To address this challenge, new mechanisms will be needed to distribute some of the benefits of productivity more broadly through society. One example would be a some form of living wage, potentially funded via a 'robot-value-added' tax that was set at higher levels on companies that created disproportionately few jobs.

Preserve the accessibility and cost-efficiency of our healthcare system. Every effort must be made to maintain Australia's excellent healthcare system, including universal access to comprehensive, high-quality healthcare for every member of society, as well as the overall cost-efficiency of service provision.

Adapt retirement and aged care to reflect increasing life-expectancy. Australian life expectancy increases by around six weeks every year. Retirement funding and aged care systems need to evolve to ensure that the cost of this element of social welfare is fairly spread across society. One logical measure would be to index the retirement age in line with changes in life expectancy, thus providing an impartial mechanism for increasing the official retirement age slowly over time. In addition, increased recognition should be given to the benefits of partial retirement, perhaps by offering reduced rates of tax on earned income for people over the retirement age.

In addition to these initiatives, further consideration must be given to how we assess the economic and social contribution made to society by activities such as caring for elderly or sick relatives that is not captured by conventional economic metrics. Moreover, employment helps to ensure day to day engagement with society, and thus gives people's lives greater meaning, with significant benefits for mental health. Our society needs to explore how to create greater connection within local communities, and how to stimulate a more caring and nurturing culture.



Character and behaviour

The character and behaviour of our leaders defines who we are as a nation. It's time to raise our game to a standard of which we can be genuinely proud



Lead by
example



Listen with
an open mind



Be kind and
compassionate



Respect
others

In the run up to any election, the airwaves are filled with kneejerk criticisms of political opponents, occasionally intermingled with soundbite promises designed to woo voters in marginal electorates. The more serious candidates produce proper campaign manifestos, filled with details as to what they plan to do, and with luck a sensible plan as to how they will meet the cost of their ambitions.

Either way, around the world, politics is becoming more and more volatile. In Australia, the influence of the larger political parties is waning, and smaller parties and independent candidates are slowly but steadily gaining traction. Both of these factors increase the importance of understanding how leaders will respond to changing circumstances, and how they may seek to negotiate a bipartite or multi-partite solution.

Never mind the often-hollow promises. What is the character of the would-be leader in question, and how will they behave in adversity?

Another worrying trend is the tendency of political leaders to respond to difficult problems by turning away from both economic and scientific objectivity. Often arguments are put forward in terms that play well in ninety seconds on the evening news, but bear very little scrutiny in the morning. Whilst tempting in the short term, this approach almost always comes back to bite the proponent, as their lack of analysis highlights both slap-dash economic laziness as well as a lack of true care to resolve to issue in question.

Meanwhile, overseas senior figures who should know much better have shamelessly lied their way to public influence, political power, and in some cases significant personal financial gain. The rise of social media, originally a force for greater transparency, has been turned against itself by bot armies and micro-targeted advertising campaigns, in part orchestrated and funded by State actors.

Shockingly, Orwell's 1984 turns out to be little more than kindergarten-level dystopia.



This brings us to the behavior of Australia's politicians when they face each other across the chamber, as this is where the negotiations will be thrashed out. Having followed the country's politics for some fifteen years, I am yet to hear anyone of any political persuasion outside Canberra who is impressed with what they see. Far from it – too often what we witness in Australia's houses of parliament would see a six-year-old sent to the naughty corner for some well-deserved cool-down time. In business, employees who behaved this way would be disciplined and – if they did not change their ways – most likely summarily fired for cause.

We should all expect much, much better from our elected leaders, as indeed our better leaders do themselves.

First, there's widespread support for a federal independent commission against corruption. This should be introduced forthwith, with wide-ranging powers and solid long-term funding.

Secondly, I call for every political party and each independent candidate to support a simple Community Leader's Code of Conduct, to rule policy development, political debate and general standards of behaviour at every level of government.

Let's bring an end to hypocrisy, bigotry and bullying and set a standard that we can be genuinely proud of as a nation.



The best leaders are remembered for what they achieved, the worst leaders for what they failed to deliver



Treat each other with respect! Let's get rid of all the ugliness, end the schoolyard insults and bully-boy tactics, and bring more decency back into political life. This will elevate the business of government to a place where the people once again respect every one of their political leaders.



Answer the question! Let's insist that our leaders face facts, and answer reasonable questions as honestly as they can, rather than grasping for short term spin. This will reinforce a sense of honesty and start to rebuild so much of the trust that has been broken.



Respect science! Let's stop favouring political rhetoric and backroom chatter over informed analysis, scientific rigour and plain, down-to-earth knowledge. Willful ignorance is not tolerated in business and has no place in professionally run country, so let's stamp it out wherever it raises its ugly head.



Listen to the bureaucrats! Let's urge every political representative to make the most of the accumulated practical knowledge and experience of professional bureaucrats. This will reduce the huge amount of time wasted in ill-considered policy red herrings and rebuild confidence in politicians ability to deliver on their promises.



Remember that actions speak louder than words! Let's remind everyone that the best leaders are remembered for what they achieved, and the worst leaders are remembered for what they promised. In other words, what you do will define your legacy, whether you like it or not.

To add teeth to this simple code, let's introduce a "Goose and Gander" law that states simply that what's fit for politicians is also fit for individuals and businesses, whether in relation to liability at law or liability for tax. This would focus minds on the example that they are setting and would address head on the perception that there's one law for the lawmakers, and another for everyone else.

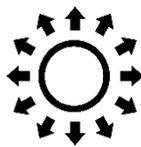
Consulting | Investment Banking | Implementation



Strategy and
public policy



M&A, JVs and
investments



Innovation and
digitalisation



Risk and data
analytics



People and
leadership