Diversify WA
Strong Economy
Creating Jobs
Diverse Industries
July 2019
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Western Australia is a great place to live, visit and do business.

We enjoy an enviable climate, a great lifestyle and a culturally diverse community.

Economically, our advantages include a highly skilled workforce, varied regions, a strong resources sector and a time zone shared with the fastest growing countries in the world. This means we are well positioned to take advantage of the mega-trends shaping the global economy, in particular:

• A rapidly growing middle class of consumers living in Asia, increasing demand for premium goods and services;
• The fourth industrial revolution and accompanying rapid changes in technology;
• Urbanisation driving infrastructure investment, particularly in our major trading partners;
• Shifting demographics – an ageing population that requires innovations in care and sustained economic growth to ensure ongoing wellbeing; and
• Climate change – which presents challenges for all sectors of the economy.

Diversify WA is an Economic Development Framework that matches these global trends with our State’s unique strengths and identifies six priority sectors for development. This will allow us to focus our collective energies in order to grow and diversify the economy, create jobs and secure our State’s future.

Priority Sectors:

• Energy
• Tourism, Events and Creative Industries
• International Education
• Mining and Mining Engineering and Technical Services (METS)
• Technology and Advanced Manufacturing
• Primary Industries
Through this Framework we seek the following outcomes:

• **A strong economy** – Supporting investment and trade to create jobs, assist economic growth and sustain our communities. Our economy has solid foundations and presents a wealth of opportunities. A productive, growing economy will ensure ongoing prosperity and is the key to improved social outcomes such as children’s health and well-being, reducing Aboriginal disadvantage and building robust regional communities.

• **A more resilient economy** – By diversifying the industries which contribute to our economy, we can better ride out the highs and lows of economic cycles and commodity prices. We must leverage our strengths and continuously innovate to ensure resilience, growth and job creation across a more diverse range of industries.

• **The creation of secure and quality jobs** – Families need confidence that their employment is secure so they can plan for the future. With certainty of employment comes the confidence to spend money, ensuring the economy remains resilient. For our economy to grow, it’s vital that we deliver stable, long-term jobs for Western Australians. Emerging industries, along with sectors including education, health and community services will support the economy and deliver the jobs for the future.

Western Australia has always been a great State in which to do business, underpinned by our stable regulatory environment. Continuous improvement in this regard is essential to provide industry with the ongoing confidence to invest and grow.

My Government has listened to feedback from business and the community and is implementing reforms to ensure we provide the conditions for growth, development and prosperity.

This Framework sits alongside our recently released Whole-of-Government targets “Our Priorities: Sharing Prosperity”. It brings together and builds on the work my Government has already begun to see our economy grow and diversify.

Bringing the Budget back to surplus, implementing our Plan for Jobs and commencing delivery of the METRONET Program are achievements we are all very proud of. In 2019 we will develop a policy on climate change, establish Infrastructure Western Australia, develop a Brand for WA and continue our work on public sector reform and budget repair.

*Diversify WA* is a comprehensive Framework to deliver a sustainable, diverse and growing economy that facilitates jobs and provides prosperity for all Western Australians.

Mark McGowan BA LLB MLA
Premier of Western Australia
“A strong and diversified economy delivering secure, quality jobs through increased investment across a broad range of industries”

Western Australia’s economy is built on solid foundations that have allowed us to prosper. While natural resources and primary industries have underpinned our success, one thing is clear: the world is changing and if we take this success for granted, we will fall behind.

The future holds many opportunities for us. To realise these opportunities, we will have to navigate some challenges:

• We need to diversify our economy, to balance our reliance on a narrow band of industry sectors and thereby improve our resilience to negative external influences;

• We need to embrace technology and improve our skills in science, data and technology to ensure we are ready to transition our workforce into higher value jobs;

• We need to think creatively and innovate to improve our productivity and competitiveness, while maintaining a sustainable environment and ensuring social cohesion; and

• We need to adapt to the transformations around us – climate change, the fourth industrial revolution, disruptive technologies and the ongoing need for infrastructure and services for our communities.

This Framework sets out a roadmap for collaboration between Government, industry and the community.
Together, we will create 150,000 new jobs by mid 2024.

With focused reforms and investment, Western Australia will be:

- internationally recognised for our use of technology to drive improvements in competitiveness;

- known for our premium food, wine and agricultural commodities including innovative production methods;

- acclaimed as a tourist destination showcasing our Aboriginal heritage, natural wonders, world-class beaches and wineries and vibrant, creative communities;

- a destination of choice for overseas students, seeking to access our premier education institutions whilst experiencing our idyllic lifestyle;

- at the forefront of low carbon energy production and storage; and

- a preferred supplier to Australia’s defence industry and an international leader in the provision of naval maritime services and maintenance.

There is the opportunity for great prosperity in our future. Together, we will create a diverse, resilient and sustainable economy to ensure the ongoing success and well-being of our State.
Introduction

Our vision is to create jobs and build a strong and diverse economy. Sustained economic growth is central to achieving these goals. But why is it important?

As Western Australian industries become more productive and attract greater investment, our economy grows, jobs are created, living standards improve and Government has more resources to contribute to improving social outcomes.

While this seems straightforward, globalisation and trade integration have redefined the influence nations can have over their economic outcomes. As a State, we are limited in our ability to drive trade agendas and use fiscal levers to stimulate growth. This makes the economy susceptible to volatile international markets and conditions beyond the control of the State Government.

To protect our prosperity we need to have robust economic policies which provide clear direction and certainty for industry and investors.

The world is changing at a rate we have never seen before. International economic and geopolitical conditions are often uncertain. Natural disasters and technological innovations are affecting the economy in unforeseen ways. At this time of uncertainty, our heavy reliance on resources and agriculture means that we are acutely vulnerable to forces we cannot control.

The Western Australian Government is implementing reforms to grow and diversify our economy. Mining, resources and primary industries will continue to play a central role, but over time this will become more balanced respective to other sectors. The resilience provided by a diverse, growing economy is essential to protect our jobs and living standards from negative external influences.

Economic growth and diversification are not simple tasks, and the role for Government is limited but strategic. Industry will play the biggest role in this undertaking. This Framework demonstrates how the public and private sectors can work together to improve the lives of Western Australians. The first such document for this State, it shows Government has a plan for achieving our vision.

Government is setting the foundations for shared economic prosperity with supportive policy frameworks, improved regulation, provision of infrastructure, and returning the State budget to surplus. Through our public sector reform program, we are developing a modern, efficient and responsive public sector which will support delivery of this Framework. We are also demonstrating fiscal responsibility, providing confidence to the private sector that Western Australia is a secure and desirable place to establish and grow their business.
Now, we need to work together to achieve our vision for a strong and diversified economy. Local Government have recently demonstrated their commitment to economic development with the release of their own Economic Development Framework, *Collaboration, Integration, Alignment, Advantage*.

The State public sector will use this Framework to guide their priorities for the coming years. For business it will assist in identifying opportunities, developing strategic projects and working with Government to addressing barriers to growth and diversification.

This document brings together the learnings from consultation on various initiatives with industry and the community. It sets out a clear path to grow and diversify the economy, creating secure, quality jobs for Western Australians.
## Vision

A strong and diversified economy delivering secure, quality jobs through increased investment across a broad range of industries.

### Strong Economy
- Strong value adding industries
- Innovation and investment
- Jobs for Western Australians

### Resilience through Diversification
- A balanced economy
- Priority sector growth across regional Western Australia

### Job Security and Quality
- Secure Employment
- High value jobs
- A highly skilled workforce

### Strategic Levers

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### A New Government Approach

- Invest and Trade WA
- Infrastructure WA
- Market-Led Proposals Policy
- Industry Engagement Consortia
- Public Sector Reform
- Streamline WA
- Government Procurement Reform
- Transforming Transport Infrastructure
- Industrial Lands Authority

### Sector Wide Transformations

### Priority Sectors

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<td>International education</td>
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### Government Initiatives

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Perth City © City of Perth
In achieving our vision for the economy and Our Priority - A Strong Economy target for jobs, we also seek the following outcomes for Western Australia:

**Strong economy**

The Western Australian Government will support economic growth through its commitment to:

- **Strong value adding industries**
  - The advancements led by our resources industry provide a strong foundation to add value to other sectors. Leveraging these innovations will aid the growth of other industries including defence, energy, shipbuilding and agriculture.

- **Innovation and investment**
  - Improved global engagement via the Government’s Brand WA and Invest and Trade WA initiatives will showcase our pro-development State. Fostering innovation, productivity and sustainability will demonstrate that we are open for business – attracting investment to grow and diversify our economy.

- **Jobs for Western Australians**
  - Investment in jobs is a continuing firm focus of the Western Australian Government. We are creating an economy that stimulates job growth across industries and regions. We are committed to delivering 150,000 new jobs over the next five years, with 30,000 jobs located in regions outside of Perth.
  - This commitment will ensure that more of our growing population has access to secure employment.

**Resilience through diversification**

The Western Australian Government will create a more resilient and diversified economy through:

- **A balanced economy**
  - This Framework seeks diversification into new markets alongside the expansion of existing traditional sectors. By leveraging the State’s strengths we will build economic capacity across a range of industries to ensure a balanced economy that supports long term growth.

- **Priority sector growth across regional Western Australia**
  - The Government is committed to supporting regional communities by diversifying the economy and creating 30,000 new jobs in the regions by mid 2024.
Encouraging investment and economic activity and connecting emerging industries to regional competitive advantages will provide opportunities for regional communities to ensure their ongoing sustainability.

**Job security and quality**

Job security and quality will be enhanced for Western Australians through a strong focus on:

**Secure employment**

Maintaining a stable income and undertaking fulfilling work are priorities for Western Australians, particularly those affected by the recent transition of the resources sector. Meaningful employment creates purpose and satisfaction, while also allowing individuals to fulfil their potential and participate in the community. This Framework focuses on creating the conditions for diversification to ensure the State is not overly reliant on any particular industry and that quality jobs are created across a variety of sectors. Through regional labour market reviews the Government is aligning training programs with current and future skills needs.

**A highly skilled workforce**

Ensuring that Western Australians have the skills they need for the jobs of the future is vital. In particular, skills in science, technology, engineering and mathematics (STEM) are essential for our economy going forward. Supporting this skill development through local training programs and the attraction of talented individuals from across Western Australia and around the world is important to ensure the advancement of the labour force.

Having a workforce that can actively contribute to the economy requires consistent population growth. Western Australia has been fortunate that over the long term we have achieved this. Looking forward, we are working with all levels of Government to find the best ways to encourage sustainable population distribution. As Governments, we need to balance the demand for workers with the availability of jobs, infrastructure and services.

Though not the direct focus of this Framework, the imminent retirement of the ‘baby boomer’ generation will require a sustained increase in workers in the services sectors, particularly in health and aged care.

Western Australia’s transition to the National Disability Insurance Scheme (NDIS) will stimulate significant economic and jobs growth for the State. By 2020, the NDIS is expected to boost employment by approximately 9,600 jobs in WA’s disability sector. Both metropolitan and regional areas are expected to see significant jobs growth.\(^1\)
High value jobs
Through investment in advanced technologies, businesses will be able to increase efficiencies in their supply chains and add value to existing products, creating more, higher value jobs. To achieve this it is crucial for Western Australian workers to continuously up-skill and re-skill. Encouragement of ongoing learning and the adoption of new technologies will ensure that the Western Australian workforce is ready for the jobs of the future.

Achieving the vision
To achieve our economic vision, attract investment to expand our economy and capitalise on the opportunities available to us, we will use the following strategic levers:

- Providing a Supportive Business Environment
- Research and Collaboration
- Strategic Government Investment
- Supporting Priority Sectors
- Engagement and Communication
- Training, Skills and Building Local Industry

These levers provide focus for the investments, initiatives and strategies Government is implementing to guide the economy and deliver growth, diversification and jobs for Western Australians.
Introduction
The Western Australian Government has a history of providing infrastructure and incentives to support industry and the community and facilitate sustainable growth and jobs. This Framework outlines a new Government approach to growing and diversifying the economy, with the various portfolios of Government working together more effectively to support industry and the community.

In an era of economic and geopolitical change, it is essential that we position the State to capitalise on global trends and opportunities. The following initiatives illustrate how Government is changing the way it works to better support industry and facilitate growth, jobs, development and diversification.

**A New Government Approach**

The stable and predictable regulatory system in Western Australia ensures that economic activity is well supported without compromising on values relating to sustainability and social well-being.

The Western Australian Government has a history of providing infrastructure and incentives to support industry and the community and facilitate sustainable growth and jobs.

This Framework outlines a new Government approach to growing and diversifying the economy, with the various portfolios of Government working together more effectively to support industry and the community.

In an era of economic and geopolitical change, it is essential that we position the State to capitalise on global trends and opportunities. The following initiatives illustrate how Government is changing the way it works to better support industry and facilitate growth, jobs, development and diversification.

**Establish Invest and Trade WA**

**WHEN:** 2019  
**LEAD AGENCY:** Department of Jobs, Tourism, Science and Innovation (JTSI)  
**LEVER:**

Invest and Trade Western Australia is a new Government initiative that will be responsible for attracting and facilitating investment into and promoting trade with Western Australia. It will promote our State as a premium trade partner and a top destination for investment, education and tourism. It will be Western Australia's “front door” for investment and trade prospects.
Establish Infrastructure WA and Develop a State Infrastructure Strategy

WHEN: From 2019  
LEAD AGENCY: Department of the Premier and Cabinet (DPC)  
LEVER: Infrastructure WA (IWA) will be tasked with providing expert advice on the State’s infrastructure needs and priorities, including the development of a 20-year State Infrastructure Strategy. IWA will aid Government and industry investment in infrastructure to support and deliver economic growth and jobs for Western Australians.

Industry Engagement Consortia

WHEN: Ongoing  
LEAD AGENCY: DPC / Sector specific agencies  
LEVER: Industry Engagement Consortia are ‘round tables’ involving key Government Ministers and industry stakeholders. They provide a forum for feedback and suggestions on the Government’s commitments and economic initiatives, with the outcomes influencing future decision making. 
In 2017, the Premier hosted Industry Engagement Consortia in sectors including tourism, defence industries, agribusiness, international education, manufacturing, aquaculture and creative industries and mining, engineering technology and energy. A second round of Industry Engagement Consortia are underway for 2019.

Public Sector Reform

WHEN: Ongoing  
LEAD AGENCY: All Government agencies  
LEVER: The Government is leading by example, building capability and modernising the public sector to deliver our significant reform agenda. This includes encouraging new ways of working, promoting collaboration (both across and between agencies) and enhancing digital service delivery – making it easier to navigate the spectrum of government services and reducing the overall cost of undertaking government business.
Transforming Transport Infrastructure

METRONET Stage 1 – Public Transport

WHEN: Ongoing LEAD AGENCY: METRONET Office LEVER: 🏢

METRONET is the biggest ever investment in Western Australia’s public transport network that will transform the way people travel throughout Perth. This transformational infrastructure program will deliver improved connectivity and create a significant uplift in land use capacity and activity, with over 5,000 hectares of development opportunities in new train station precincts. METRONET Stage 1 will be a fundamental enabler of economic activities in Perth and surrounding regions, directly creating jobs (including for trainees and apprentices) and connecting people to jobs and places of significant economic activity. METRONET Stage 1 will reduce congestion and meet Perth’s future transport needs by delivering approximately 72 kilometres of new passenger rail and up to 18 new train stations.

Delivery of METRONET will contribute to achieving Our Priority – A Liveable Environment which aims to increase the number of homes in close proximity to a public transport node in Perth and Peel by 45 per cent by 2031.

Westport – Developing a Port and Environs Strategy

WHEN: 2019 LEAD AGENCY: Department of Transport (Westport Office) LEVER: 🏢

The Westport: Port and Environs Strategy will deliver a sustainable long-term supply chain strategy to optimise freight, trade and logistics needs from Fremantle and Kwinana to Bunbury. This Strategy will provide guidance to the Government on the planning, development and growth of the Port of Fremantle at the Inner and Outer Harbours, the required rail and road networks, and the potential for the Port of Bunbury to contribute to the handling of the growing trade task.

Streamline WA Regulatory Reform

WHEN: 2019 LEAD AGENCY: DPC LEVER: 🏢

Through Streamline WA, Western Australia will continue to be globally renowned as an easy place to do business. This will be achieved through the improvement of Government interactions with private and community sectors, by reducing red tape for industry and creating effective regulatory settings for new industries and businesses to prosper.
The State Government is targeting to award 3 per cent of all government contracts to Aboriginal owned businesses by 2020.

Government Procurement Reform

WHEN: Ongoing
LEAD AGENCY: All Government agencies
LEVER: Western Australian Jobs Act 2017

This legislation enhances local industry participation in the supply of goods and services to or for State Government agencies, with a particular focus on benefits to small and medium sized enterprises. It also emphasises the reporting of economic outcomes as a result of local industry participation through the introduction of:

WA Industry Participation Strategy and Participation Plans

Driving Government procurement through a number of principles including:

• Promoting the diversification and growth of the Western Australian economy by targeting supply opportunities for local industry;

• Providing suppliers of goods or services with increased access to, and raised awareness of, local industry capability;

• Promoting increased apprenticeship, training and job opportunities in Western Australia; and

• Promoting a full, fair and reasonable opportunity for local industry to compete against other suppliers of goods or services.

Local manufacture of new passenger railcars for public transport will significantly benefit WA, bolstering local manufacturing and jobs. With a minimum 50 per cent local content target, the railcars will stimulate the development of a local rail car components industry and a number of new jobs in the proposed rail car manufacturing facility.

The Priority Start program rewards head contractors who already employ apprentices but increases the role of head contractors in ensuring a specific target number of apprenticeships are met as a result of Government contracting. This initiative addresses a commitment to ensure an adequate supply of skilled workers is available to address the current and future needs of industry.

Aboriginal Procurement Policy

The State Government is targeting to award three per cent of all Government contracts to Aboriginal owned businesses by 2020. This policy supports economic independence of Aboriginal people and families in both urban, regional and remote settings.

Improving economic outcomes for Aboriginal people will also assist in achieving Our Priority – Aboriginal Wellbeing.
Implement A Market-Led Proposals Policy

WHEN: 2019  LEAD AGENCY: Department of Finance

The Market-led Proposals Policy provides an innovative pathway for businesses and Government to work together and harness good ideas, private sector investment and entrepreneurship to develop projects, goods or services that benefit the State. The policy provides a single clear, consistent and transparent process for parties to approach Government with unsolicited proposals.

Establish an Industrial Lands Authority (ILA)

WHEN: 2019  LEAD AGENCY: Landcorp / JTSI

The ILA will be responsible for further developing ready to use land for industry. Its remit covers land for light industrial, general and transport and strategic land use. General industrial estates provide land for new and emerging growth industries like data centres and agribusiness and generate new employment opportunities close to residential communities.

Strategic Industrial Areas (SIAs) are being developed as sustainable, well-designed estates that connect to employment hubs, existing and planned key infrastructure such as ports, airports and major transport routes. SIAs are located close to key resources projects and a skilled workforce ready to support industrial activities and downstream processing.

Importantly, the ILA will be charged with ensuring that SIAs have the relevant planning and environmental approvals in place so that they are ready to cultivate new industries without the complications of ‘red or green tape’.
Sector wide transformations

The new approach to the business of Government is complemented by other economy-wide transformations.

These transformations are focused on delivering services to the community and business. As outlined below, they support all sectors of the economy and align clearly with the overarching vision to deliver growth, diversification and jobs for Western Australians.

Establish Brand WA

WHEN: 2019  LEAD AGENCY: JTSI  LEVER: 

Brand WA will describe to the world what a vibrant, innovative place Western Australia is and connect it with our excellent reputation for premium, quality goods and services. Brand WA will be a distinct brand that producers, manufacturers, Government and the tourism industry can use to showcase the State and leverage its reputation.
Skills in STEM are essential across all sectors of our economy.

Jobs and Skills Centres

**WHEN:** Ongoing  
**LEAD AGENCY:** Department of Training and Workforce Development  
**LEVER:**

Western Australia’s Jobs and Skills Centres are a single point of contact for job seekers and employers. They help the State to increase its skill base to support the economy and grow jobs. Jobs and Skills Centres provide free and accessible education, training and career information and advice across the State for the community. Additionally, business is supported through training solutions and services for employers. Jobs and Skills Centres are located throughout Perth and regional Western Australia.

Future Jobs, Future Skills – STEM Skills Strategy

**WHEN:** Ongoing  
**LEAD AGENCY:** JTSI  
**LEVER:**

The Western Australian Government is delivering a STEM Skills Strategy to ensure our workforce is globally competitive through the application and understanding of technology.

This strategy is underpinned by five key pillars:

* Skills for future jobs;
* STEM culture;
* School leadership and teacher excellence;
* Diversity in STEM; and
* Training and reskilling for jobs.

Develop a Local Jobs Bill

**WHEN:** 2020  
**LEAD AGENCY:** JTSI  
**LEVER:**

The Government is currently developing a Local Jobs Bill for consideration by Parliament. The intention of this Bill is to ensure the benefits from major projects within the Mining, Construction and Oil and Gas industry sectors flow through to local businesses. This will create more jobs for West Australians.
Develop an Asian Engagement Strategy

WHEN: 2019  LEAD AGENCY: JTSI  LEVER:

The Asian Engagement Strategy will provide a framework for Western Australia's long term engagement with key Asian markets. The Strategy responds to the need for Western Australia to diversify its economy and create skilled jobs for Western Australians.

Within the next 30 years, over half of the world’s economy will be represented by Asian economies. This presents incredible opportunities but in order for Western Australia to realise this potential our response must be focused and targeted.

Priorities for the Strategy will include maximising investment and trade opportunities, building Asian literacy and capability, enhancing people to people ties, and supporting business networks and communities to capitalise on the opportunities offered by deeper, more focused engagement with Asia.
Priority economic sectors

Western Australia has a number of natural trade strengths and advantages.

These stem from our vast natural resources, proximity to Asia and developed advantages such as an effective regulatory environment that makes Western Australia a safe and secure place to do business. In addition, our highly skilled workforce and sustained investment in economic infrastructure provides the foundation for competitive strengths in a number of key sectors.

Globally, there is a trend towards a growing middle class – particularly in the Asia-Pacific region. Our close proximity to this increasing cohort of consumers provides opportunities across a variety of sectors. In addition, climate change and increased urbanisation will drive strong demand for cleaner energy sources, raw materials and innovative production methods, all of which Western Australia has a competitive advantage in.

This Framework identifies six priority sectors of the economy which will be a development focus for Government. As a State, we can add significant value in these areas and foster their potential for growth beyond business-as-usual. These sectors have been identified as the points at which Western Australia’s strengths meet the global demands from the mega-trends outlined above.
Energy

The availability of affordable, reliable energy supplies underpin our economy. Western Australia has substantial low carbon energy resources, particularly natural gas, and unparalleled opportunities to generate and safely store renewable energy. We are home to some of the world’s best Petroleum Engineering and Technical Services (PETS) companies, we supply the majority of the world’s lithium and we have all the other rare earth minerals necessary to produce lithium batteries. Given the world’s ever growing demand for energy, especially clean energy, means Western Australia has an opportunity to be at the forefront of global energy production.

Tourism, events and creative industries

Tourism, events and creative industries make an important contribution to the vibrancy and liveability of Perth and our regions. Our vast natural beauty and the unique opportunity to experience Aboriginal culture make Western Australia a great place for visitors to explore. Leveraging cultural and sporting events to draw more tourists, while also growing an innovative creative sector, is another diversification prospect for the State.

International education

With increasing urbanisation and a growing number of consumers seeking quality education alongside a healthy and vibrant lifestyle, there is a clear opportunity for Western Australia to grow its international presence and brand as an education destination. Further capitalising on our world-class education institutions in Perth will drive economic activity and support diversification - making the State an attractive destination for international students and their families.
Mining and Mining Equipment, Technology and Services (METS)

Mining and resources are a significant strength and contributor to the State’s economy. The global emergence of technological and knowledge advancements in this sector presents an immense opportunity for Western Australia. The deep knowledge base and unparalleled expertise in the State will ensure we are positioned to capture new benefits from this sector.

Technology and advanced manufacturing

Global demand for new technologies, pharmaceutical and medical products and techniques, and defence and maritime capability and assets continues to grow at a rapid pace. Western Australia has built strengths in large-scale ship building, sustainment and specialised manufacturing. We also have globally recognised research and development capability and unique flora and fauna with potential medicinal benefits. Exploiting the State’s abilities in technology and advanced manufacturing activities is a clear pathway for economic growth and diversification.

Primary industries

Global demand for food and primary industry products is increasing driven largely by the growing global middle class, which Western Australia is capitalising on. Afforded premium geographic positioning both in respect to proximity to Asian markets and rich marine and agricultural environments, this sector will play a central role in growing the State’s economy. Our isolated location, strict biosecurity regime and innovation in value-adding will ensure we can meet increasing global demand for niche products.
Energy

Western Australia is a global powerhouse for energy exports.

13.9% World LNG exports

41% of world lithium supplied by WA

WA is home to world-leading innovation in microgrid technologies

World’s second biggest producer of Rare Earths

16.2% generation by renewables
Western Australia will be a world-leading, sustainable and diversified energy supplier, supported by a highly skilled and capable workforce.

Our strengths

Western Australia has a well-established energy sector centred on liquefied natural gas (LNG) production that is expected to dominate global supplies in coming years. Through the State’s Domestic Gas Reservation Policy, Western Australia has a secure long-term supply of affordable natural gas. This provides Western Australia with a competitive advantage over other States in supplying affordable energy to industry. The State also has undeveloped gas fields that have the potential to further support regional economic growth and ensure a sustainable long term supply of energy.

In addition, we are increasing power generation through renewables, given our large uninhabited land masses and favourable climates. The Government expects that industry will rapidly develop in this area as economies around the world transition to lower carbon fuel sources.

Our opportunities

To ensure long-term sustainability of the energy sector, we will continue to support the LNG industry and simultaneously innovate and nurture clean and renewable energy production and storage. In addition, it is important that we carefully manage the transition from coal-fired power and provide opportunities for displaced workers in existing, new and emerging industries.

One of these emerging industries is lithium manufacturing. Lithium batteries are becoming more prevalent as they provide the ability to store energy generated through intermittent and renewable sources. With the rapid uptake of electric vehicles and battery-based energy storage systems, smart consumer devices and other electric modes of transport, global consumption of lithium batteries is forecast to grow five fold over the next ten years.

There is an opportunity for Western Australia to become a key player in the future global battery supply chain. We have established strong foundations with seven lithium mines in operation, two lithium processing plants under construction, and a third undergoing feasibility studies and approvals. The State is also home to the world’s largest single lithium reserve. These projects, being developed by global resource companies, demonstrate the potential of Western Australia to play a more significant role in the process global battery value chain. The three processing plants alone will create over 800 direct jobs, and many more indirectly.

Hydrogen is another emerging energy market in which we have a significant competitive advantage. The hydrogen market is predicted to grow substantially in coming years, with major export markets Japan and South Korea shifting towards a hydrogen focused economy. With innovation and the right expertise, we can position Western Australia to become a leader in hydrogen, with positive impacts for both jobs and the economy.

As with the mining and METS sector, Western Australia also has a successful PETS sector that supports low-cost and responsible development of the oil and gas industries. The scale of the petroleum sector in Western Australia means that there is genuine opportunity for the State to become a centre of excellence for both onshore and offshore PETS.
Government initiatives

Providing the right policy and regulatory settings to facilitate the development of the energy industry are priorities for Government. Enabling and encouraging innovation in this sector will create higher value jobs and sustained economic prosperity.

Implement Future Battery Industry Strategy

This Strategy is designed to grow the State into a world-leading exporter of future battery minerals, materials, technologies and expertise. The strategy includes filling current and future skill gaps, facilitating access to infrastructure and funding for technology enterprises and opportunities to develop the lithium battery value chain in Western Australia including through assembly, installation and management of energy storage systems. Western Australia has also been confirmed as the home for the Future Batteries Cooperative Research Centre which will provide industry-leading research to improve Australia’s global competitiveness.

LNG Jobs Taskforce

The LNG Jobs Taskforce has been formed by Government to help ensure Western Australia becomes an international hub of expertise in the LNG industry. It is chaired by the Premier and includes the Chief Executive Officers from Chevron, Woodside, Shell and Santos, as well as senior representatives from the Australian Petroleum Production & Exploration Association and Unions WA.

Renewable Hydrogen Council

Under the guidance of the Minister for Primary Industries and Regional Development, the Renewable Hydrogen Council is exploring opportunities for the development of a renewable hydrogen industry in Western Australia, complementing existing energy exports and a future battery industry.

Establish climate change policy

Government is developing a coordinated climate change policy for the State to manage the risks, impacts and costs of climate change. Innovations to address climate change will be required to support economic diversification in Western Australia. Given our wide variety of resources and climates, Western Australia has the potential to be a global leader in climate change mitigation.

Energy Transformation Strategy

Initial initiatives include:

• Preparation of a Whole of System Plan for coordination and development of the power system for the South-West; and

• A Distributed Energy Resources Roadmap to ensure safe and secure integration of renewables and batteries in the State’s power system.
In Focus: Chevron LNG – Wheatstone and Gorgon

With a capital investment of over $80 billion, Chevron’s Gorgon and Wheatstone Developments are two of Australia’s largest natural resource developments, capable of producing 24.5 million tonnes of LNG per year. Together, the projects will contribute an estimated $1 trillion to national GDP between 2009 and 2040.

Since commencement of construction in 2011, the Wheatstone project has spent more than $20 billion on Western Australian goods and services, creating more than 7,000 local jobs. Chevron also makes significant contributions to Western Australia through education programs, scholarships and traineeships, arts sponsorship, investment in health research and infrastructure investments in the town of Onslow worth around $250 million.

In Focus: PETS: Kingston Bridge Engineering

Kingston Bridge Engineering is a niche PETS company based in Perth, who were connected to Chevron’s $50+ billion Gorgon Project in 2012 by the Industry Capability Network – a joint industry-Government initiative.

Chevron were having difficulty procuring piping that met their requirements for the Gorgon project. Although a small firm, at the time Kingston Bridge spent $10 million on innovative machinery that allowed them to develop a bespoke pipe specifically for the Gorgon project.

The company secured a number of multi-million dollar contracts and soon had over 90 specialist staff fully occupied producing pipes for major projects around the world. They are still one of only three firms in the world to make such a pipe.
Tourism, events and creative industries

Perth is the western gateway into Australia, offering unique tourism and creative industries experiences in the city and the regions.

In 2019, for every $1 invested by the Government in FRINGE WORLD $80.17 was stimulated and spent in the local economy.

FRINGE WORLD 2019 contributed over $100 million to the State economy.

Priority target: By 2023-24 WA’s conservation estate will increase by 5 million hectares

Perth shares a time zone with 60 per cent of the world’s population (plus or minus two and a half hours)

RAC Arena and Optus Stadium attract major creative and sporting events
Tourism is a key economic driver for Western Australia, with sporting and cultural events also providing a draw card for tourists. Supported by our creative industries, these sectors provide the foundation of our vibrant, liveable communities.

Our strengths

Western Australia’s extraordinary coastline and landscapes include impressive natural wonders, insights into Aboriginal culture and remarkable food and wine offerings. Visitors are increasingly attracted to these unique destinations through their visual appeal on social media. Our strategic location and shared time zone with key markets, along with our safe, secure environment and great climate, ensure we are well positioned to expand this sector.

Major creative, cultural and sporting events also attract both visitors and media attention, providing significant emerging benefits to the economy. With the development of world-class venues, along with a growing number of major cultural events such as the Perth International Arts Festival and Fringe World Festival, Western Australia is showcasing our diversity and lifestyle to the world. These sporting, cultural and creative events also ensure that a variety of community interests are catered for, increasing the vitality and sustainability of our cities and regions.

Our opportunities

For the last three years the growth of tourism nationally has outpaced the economy with Australia ranking number one globally for visitor spend per trip.10 As a large global industry, tourism directly contributes to the State’s economy including through accommodation, transport and entertainment. In 2017-18 the total industry contribution to Gross State Product (GSP) was $11.79 billion (4.8 per cent of the total State GSP).11

In addition, the industry either directly or indirectly employed over 100,000 people (7.7 per cent of State employment). In the year to December 2018, 11.9 million people visited or travelled within the State, spending approximately $10.4 billion.12

The substantial growth of incomes in our region will drive demand for cultural and leisure activities in Western Australia. To capitalise on this we need to work together – Government, industry and the community – to ensure our product offerings align with both local and tourists’ interests and to leverage events and attractions that draw tourism to WA. This includes an emphasis on Aboriginal tourism, offering active, adventure and food tourism products and increasing the availability of all-inclusive tourist ‘packages’.

Government initiatives

Providing the environment and enablers to support the tourism, events and creative industries sector will be critical to delivering economic growth and supporting jobs across our regions. Government is committed to achieving this through a number of key initiatives including:

Implement the Two Year Action Plan for Tourism WA

Launched in 2018, this plan focuses on four areas that will increase visitation including:

• Positioning Perth as Australia’s western gateway;
• Changing perceptions of Perth and reigniting the east coast market;
• Attracting more people, more often to regional WA; and
• Intensifying promotional activity in target markets to encourage travel.

Develop a new long term tourism strategy

Tourism WA is developing a long-term tourism strategy that builds upon the Two Year Action Plan and provides strategic direction, including increasing Aboriginal tourism, addressing workforce attraction and retention and ensuring the sustainability of the sector.
Grow Aboriginal tourism

Aboriginal tourism is an important part of the State Government’s plan to support Indigenous communities and Aboriginal well-being throughout the State. It is also of great interest to visitors with 82 per cent stating that they would be interested in experiencing Aboriginal tourism in WA if it were more easily accessible. Only 26 per cent of visitors however are actually accessing these experiences.

To address this objective, Tourism WA is providing ongoing support to the WA Indigenous Tourism Operators Council to develop accessible, authentic Aboriginal tourism experiences. These experiences provide a unique cultural insight for tourists, while also supporting the retention of traditional culture and encouraging economic sustainability of Aboriginal communities.

Develop Brand WA

Brand WA will speak to the rest of the world about the State, its people and values, its economic attributes, and Western Australian industry. It will provide an overarching brand, with co-branding included as an essential part of the model. The Brand will benefit local industries including manufacturing, agriculture, new technology and service industries like education, tourism and hospitality as well as small business.

Implement the Cultural Infrastructure Strategy

The Government is investing in cultural infrastructure such as the new Perth Museum to promote Western Australia. We are also promoting engagement with cultural and creative activities throughout the regions to increase regional tourism and liveability.

Guiding the creative industries sector

We will ensure Western Australia benefits from the projected significant growth of the creative industries sector over the next five years. We will build key markets, attract investment through co-productions and cultural infrastructure; and equip the workforce with the skills and confidence to sustain the creative industries sector.

New directions for screen and immersive technology

Government is seeking to align ingenuity in screen and immersive technology with the promotion of the State, including its unique points of difference such as: access to markets for additive manufacturing (where 3D items are made by building layer upon layer of material), advanced knowledge of robotics, virtual reality, big data (including through the Square Kilometre Array (SKA), and Pawsey Supercomputing), and smart health technologies.

Improve aviation access

The development and improvement of aviation access to Perth and key regional centres will play a major part in the growth of our tourism and events sectors. This includes facilitating more direct flights to priority markets such as China, India, Japan and working to reduce the cost of intrastate fares.
In Focus: Camping with Custodians

Camping with Custodians is an exciting, Australian-first tourism initiative that allows visitors to share in a unique cultural experience with Aboriginal people on Aboriginal lands. Camp grounds are built on Aboriginal land and operated by the local Aboriginal community with visitors paying a fee to stay on their land, experience Aboriginal culture and meet Aboriginal people.

Camping with Custodians provides Aboriginal communities with new forms of income, employment, training and the opportunity to showcase their lifestyle and culture.

In Focus: Screenwest

Western Australia’s screen industry has grown significantly in the last five years and we are currently the most active film-making State in Australia. With major big-screen successes including Red Dog, Paper Planes, Bran Nue Day and Australia, showcasing the State to the world, along with outstanding television series (notably Mystery Road), we are at a critical point on which we can capitalise.

Linking the State and regions with these on-screen successes, will increase growth in tourism related industries, creating jobs and greater prosperity for our regions.
International education

Western Australia will increase its market share of international students and be known globally as a place to live, learn and launch bright futures.

WA accounts for 6 per cent of international student enrolments in Australia

2025 goal: Almost double to 100,000 international students

Chinese and Indian students account for approximately one-third of enrolments in WA

Supports around 10,000 full time jobs across the State

World class research institutions

International education is Australia’s third biggest export behind iron ore and coal

WA’s 2018 export income from international education: $1.9 billion

Perth is one of the world’s most friendly and liveable cities
The increasing global demand for quality education offerings provides a clear opportunity for Western Australia. A focus on this sector will ensure that the State becomes an education destination of choice for both national and international students.

**Our strengths**

We are a safe, friendly and supportive destination with Perth the home to the State’s premier education facilities.

Our higher education and research institutions are world-class and bring together first-rate facilities and collaboration with some of the world's largest resource companies. With universities and other educational institutions working with industry to advance and promote our education offerings, we will distinguish Western Australia as an attractive destination for international students.

**Our opportunities**

Demand for international education continues to increase globally, which provides a significant opportunity to the State. As a community, our embracing of different cultures assists the integration of students into the community, encouraging visits from family and friends and supporting job creation and economic growth.

Our close proximity and a shared time zone with Asian and Indian Ocean Rim markets means international students can enjoy reduced travel time and more easily communicate with their friends and families. With direct flights currently available between Perth and a wide range of major international cities, Western Australia is ready to welcome students from all over the world.

**Government initiatives**

Ensuring Perth is a top choice destination for international students requires meaningful collaboration between Government, the higher education sector and the community. Government will support this through a number of initiatives including:

**Implement the International Education Strategy**

The Strategy sets a goal to almost double the number of international students in Perth to 100,000 by 2025.

This Strategy will promote Perth across global markets as an exceptional destination to enhance the experience and employability of international students studying in Western Australia:

- Promote a sense of community for international students through a series of engagements and communication channels;
- Establish a “Destination Perth” digital marketing campaign; and
- Create a range of initiatives that address the specific future employment needs of international students and are complementary to their studies.

**Establish an International Student Centre in the Perth CBD**

This new ‘one-stop-shop’ student support service will provide international students with information, advice and assistance on accommodation, transport, health, employment, community engagement and cultural activities.
Delivering innovative and quality education

The State’s educational institutions are introducing innovative offerings to ensure their international competitiveness. These offerings will empower the workforce of the future, attract additional international students and support long-term job security. The recent collaboration between Rio Tinto and South Metropolitan TAFE to create ground-breaking, high-tech courses in automation is an excellent example of how we can leverage our strengths to attract international students.

In Focus: High quality student accommodation

The availability of safe and affordable student accommodation in Perth city is a key element in attracting international students. The private sector is capitalising on this opportunity with a number of large-scale developments under construction or seeking approval in the centre of Perth.

These facilities offer affordable apartments designed specifically for students. The recently opened “Campus Perth” and nearby “The Boulevard” include amenities such as pools, gyms and communal spaces, and are within walking distance to key services and attractions including the State Library, Northbridge Piazza, the CBD shopping precinct and major bus and train stations.
Priority economic sectors
Mining and METS

Western Australia will build on its strong mining and METS sectors to achieve sustainable growth and production rates, along with expansion into new and emerging minerals such as lithium.

Key exports (2017-18):
Iron Ore: $62.3 billion
Gold: $17 billion
Alumina: $8.7 billion

Western Australia has a long pipeline of mining projects, estimated to be worth $108 billion (Sept 2018), of which $36 billion are either committed or already under construction.

One of the Top 5 most attractive jurisdictions in the world for mining.

Produced more than 50% of the national total mineral and energy exports in 2017.

95% of iron ore exported to Asia.

We are home to over 350 METS companies and produce 60% per cent of mining software globally.

More than 50 different minerals are mined in WA.

WA is the world’s biggest exporter of iron ore.
Many of the world’s top mining companies have major operations in Western Australia and we have a long history of facilitating and supporting mining operations across the State. Our stable regulatory and political environment and high quality infrastructure (roads, rail, ports and utilities) have enabled the growth of these companies. Western Australia also boasts some of the world’s pre-eminent mining and resources research institutions.

Our strengths

The mining sector has long been of strategic importance and comparative advantage to Western Australia. Our natural mineral endowment varies across the State’s regions, including iron ore in the Pilbara, gold in the Goldfields, alumina, nickel, diamonds, lithium and significant rare earths deposits.

The Government supports the mining sector through the frameworks and the systems necessary to encourage investment and innovation. Through our mature and stable approvals systems and low sovereign risk, we provide security for investors, reassurance to the community and a mechanism for Government to ensure that appropriate standards are upheld.

As more developing countries seek to attract foreign investment to their mining sectors, it is essential that we leverage our strengths to ensure sustainability of the sector and development of new projects.

Our opportunities

While the mining sector is already diverse and well established, it will be important to continue to foster innovation and resilience going forward.

Lithium and other battery material related sectors have attracted much recent attention, as the world increases its continued uptake of low carbon and renewable energy. Western Australia is currently the world’s largest producer of lithium, and has reserves of all other minerals used to manufacture batteries. We are in a unique position to become a market leader in battery mineral exports and potentially the lithium battery-making process. By processing and adding value to the raw battery materials we can create jobs and drive economic growth.

Western Australia is already successful in attracting the bulk of the investment in Australia for mineral exploration – mineral exploration alone contributes $1.2 billion to the Western Australian economy each year. Exploration is critical to ensuring sustainability of the sector and development of new projects.

Western Australia has extensive capabilities around METS, which have contributed to the success of our mining sector. METS companies have developed a range of innovations including remote control technologies, automated system solutions, and exploration and 3D mine design software. Applying these technologies across other industry sectors will facilitate international competitiveness, supporting economic growth, diversity and job creation.
Government initiatives

We are committed to continuing to support growth and innovation in the mining sector and enabling industry to take advantage of value-adding opportunities. Initiatives to facilitate this include:

Develop a mineral and energy resources development strategy

In 2019, the Western Australian Government will develop a mineral and energy resources development strategy, outlining development priorities for the sector to ensure sustainable growth and production. The strategy will set out Government’s objectives for the resources sector, ensuring alignment of the activities of Government, industry, research institutions, and the METS and PETS sectors.

Facilitate a new brine industry

The Western Australian Government is facilitating the development of a new industry sector that uses brine extraction for mining of special minerals such as potash. Potash is a premium fertilizer that significantly increases agricultural yields and productivity. There are dual benefits to this development:

1. The development of a new industry sector that involves the extraction of minerals that are naturally occurring in water which will assist growth and diversification and also create employment particularly in remote Aboriginal communities; and
2. Provide a local supply of superior potash for the agricultural industry which is currently reliant on imports.

Grow exploration and build knowledge through the Geological Survey WA

Policies and regulatory approaches will facilitate ongoing exploration, particularly in under-explored areas of the State, to drive long-term sustainability.

Up to $10 million in State Government grants will be available annually to help industry fund exploration through innovative drilling, geophysical survey and strategic research.

The Geological Survey WA provides leadership in the collection, collation and publication of information on the geology of Western Australia. It also leads collaboration on national initiatives to build better knowledge of the mineral resource potential of Western Australia.

In Focus: METS Successes

Micromine is a Western Australian company and leading provider of innovative mining software. Their solutions span the entire mining cycle from geological exploration and data management to resource estimation, 3D mine design, planning and production control.

Founded in 1986, today they have offices in 18 of the world’s mining capitals. Micromine is the only provider of solutions that are relevant to every stage of the mining process and in 2008 was the recipient of the largest Australian Government grant awarded to a mining software provider.

Micromine’s software has been used on a number of local projects including the Kanowna Belle Gold Mine and BHP Billiton’s Leinster nickel operation. In addition, the company has received a number of industry accolades for its technical innovation and commercial strength.
In Focus: Autonomous mining

Automation and digital transformation play an important role in improving safety and productivity in the resources sector. Western Australia’s iron ore producers are at the forefront of implementing autonomous technology.

Rio Tinto has deployed the world’s first automated heavy-haul, long distance rail system - AutoHaul™. Over 1,700 kilometres of rail network in the Pilbara carry iron ore from 16 mine sites to two Ports (Dampier and Cape Lambert)\(^1\).

The AutoHaul™ system is 100 per cent controlled remotely from its operations centre in Perth. Similarly, driver-less trucks are increasingly used at iron ore mines, with around 200 automated trucks currently in operation by Rio Tinto, BHP, Fortescue Metals Group and Roy Hill, with more proposed.

Automation has also extended to drill rigs used to place the explosives in iron-ore mining, providing significant safety benefits. These rigs also analyse the quality of the ore at various depths while they are placing the explosives, providing valuable data.

These advances are set to culminate in Rio Tinto’s first ‘intelligent’ mine, the new $3.5 billion Koodaideri iron ore project\(^2\), which will incorporate the latest in digital design, advanced data analytics, machine learning, control loop optimisation and automation.

By introducing training qualifications in robotics and automation, Western Australia will transfer this knowledge into a broader range of industries. Automation is leading a transition from repetitive, manual jobs into jobs that require more reasoning and judgement. The World Economic Forum predicts that by 2022, automation will create around 58 million more jobs globally than it displaces.\(^3\) The Government is committed to working with industry to ensure that these new knowledge-driven jobs are based in Western Australia.
Technology & advanced manufacturing

Western Australia will be at the forefront of innovation in technology and advanced manufacturing, having capitalised on emerging opportunities and niche markets in global supply chains.

Key medical breakthroughs:
Professor Fiona Wood’s spray on skin for burns victims
Professor Barry Marshall and Dr Robin Warren’s work on H. pylori infections causing peptic ulcers

By 2030, at least 75% of waste generated in Western Australia will be reused or recycled

Priority targets:
By 2024, 85% of Year 12 students will complete two or more STEM courses or related qualifications

Areas in which we already have a competitive advantage include:
Defence
Shipbuilding
Health research
Cybersecurity

Manufacturing contributed nearly $13 billion or 5% of gross state product in 2017-18

Home to Australia’s largest naval base HMAS Stirling

Economic Development Framework for Western Australia

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Global improvements in technology and connectivity are rapidly changing the way the world does business. Innovation is leading to the emergence of new high-value industries.

Western Australia has developed capabilities in big data and data analytics with the establishment of several data infrastructure and research projects including:

• **Square Kilometre Array project** – a global radio-astronomy project involving institutions from more than 20 countries. This is the largest radio science project on the planet.

• **Pawsey Supercomputing Centre** – one of only two, Tier-1, High Performance Computing facilities in Australia, whose primary function is to accelerate scientific research for the benefit of the nation.

• **Innovation Central** – part of the network of 10 CISCO Internet of Everything centres worldwide.

• A number of privately established Innovation Hubs, including: CORE Innovation Hub, Telethon Kids Genome Innovation Hub; ATCO Clean Energy Innovation Hub and Kalgoorlie-Boulder Mining Innovation Hub and the recently announced Agristart Innovation Hubs in Northam, Busselton and Albany.

**Defence and shipbuilding**

Western Australia has a long history of successfully servicing the defence industry through innovative and collaborative manufacturing activities, particularly in shipbuilding and sustainment. We are home to a number of strategic defence assets, such as air force bases and naval bases, including Australia’s largest naval base HMAS Stirling.

Given the high concentration of defence maritime activities in Western Australia, there is a community of prime subcontractors and small and medium enterprises servicing this industry clustered in the Australian Marine Complex (AMC) south of Perth.

The AMC is recognised as a centre of excellence for shipbuilding and repair and maintenance of commercial and Royal Australian Navy ships and submarines. The AMC houses the world’s most advanced floating dock along with a purpose-built submarine repair facility, an international standard fabrication complex and significant dry berth support infrastructure.

**Health research and innovation**

Our health system faces many of the same challenges facing governments around Australia and the world, including an ageing population as well as lifestyle and technological changes. Health research, innovation and commercialisation can contribute to addressing these issues while also supporting job creation and economic growth.

Western Australia has a pre-eminent health research and innovation system, with a strong reputation for skilled health professionals, cutting-edge technology and world-first treatments.

We can supplement our strengths by developing more sophisticated processes and innovative products and treatments and capitalise on growing demands in export markets. Big data and artificial intelligence will play a significant role in these developments, enabling more complex and advanced processes to be developed, including robotics for patient surgery, ingestible sensors and immersive technology.

As the home to some of the world’s few remaining biodiversity hotspots, Western Australia is recognised as possessing a number of specific flora species with significant medicinal potential across various climatic zones. The ability to commercialise specific pharmaceutical processes and export higher value compounds will help strengthen and diversify our economy.
Government initiatives
Facilitating the growth and development of the technology and advanced manufacturing sector:

Implement the Defence and Defence Industries Strategic Plan
This plan supports the development of the defence sector and associated industries by:

- Building advanced manufacturing capability in the defence industry by leveraging the State’s expertise in the oil and gas, mining and other industry sectors.
- Developing and promoting a comprehensive case for Western Australia to be the principal location for all future Royal Australian Navy submarine and frigate maintenance and sustainment, including submarine full-cycle dockings and upgrades.
- Promotion of the State’s existing capacity to national and international defence markets through participation in national and international defence forums such as Pacific 2019.
- Collaborating with the Commonwealth Government to establish a Defence Science Centre in Western Australia and offering defence science grants by the Centre to facilitate collaboration and support the commercialisation of defence related research.
- Establishing a defence office in South Metropolitan TAFE to coordinate the production of an integrated Defence Workforce Development Plan and advise on defence-related skills matters.

Develop a health and medical research and innovation strategy and future health research and innovation (FHRI) fund
This strategy will ensure that FHRI funding is used to support initiatives that will provide the State with the greatest health and economic benefits. Consultation on the draft Strategy was completed in June 2019.

Support phenomics research
The Western Australia Government has provided $1.5 million towards establishing the Australian National Phenome (Research) Centre at Murdoch University. Described as “biological fingerprints”, a phenome is a snapshot of a being’s (person, plant or animal) unique biology which results from the interaction of environmental factors and genetic factors. This ground breaking research will provide transformational benefits across human health, animal health, agriculture and food.

Implement the New Industries Fund
We have established a $16.7 million New Industries Fund to encourage collaboration and co-investment in innovative projects between Government, educational institutions and the private sector. Advancing the skills of our workforce, particularly STEM skills, will facilitate innovation, create new jobs and assist businesses to grow.
Support innovation hubs

These hubs bring a critical mass of people together, with access to the right expertise and facilities, and enable better use of talent and technology. In addition to the privately established hubs already noted, there are currently three Government-designated innovation hubs.

• **Edith Cowan University / Joondalup Cyber Security Innovation Hub:** Headquarters of Australia’s Cyber Security Cooperative Research Centre (CRC). ECU is world renowned for its cyber security expertise and education.

• **WA Node of MTPConnect:** A biotechnology and pharmaceuticals innovation hub built on partnership between the not-for-profit MTPConnect and the University of Western Australia.

• **WA Data Science Innovation Hub:** To develop skills for jobs in data science in collaboration with Curtin University and building on the work of the Pawsey Supercomputing Centre, Square Kilometre Array and Innovation Central.

In Focus: **Busselton Population Medical Research Institute**

Established in Western Australia’s South West in 1966, this Institute is home to one of the world’s longest running longitudinal health studies. Collaborating with national and international bodies, it discovered the first genetic association with asthma and has been responsible for mapping trends of common diseases such as asthma, diabetes and cardiovascular disease.

It has made a substantial contribution to worldwide medical knowledge, publishing over 400 scientific papers across a broad range of chronic diseases.

In Focus: **Civmec**

Civmec commenced operations in Western Australia in 2009, providing engineering and construction services to companies across the oil, gas, minerals, infrastructure and defence sectors. The company has since grown rapidly, with operations in three States and the Northern Territory, and listings on both the Singapore and Australian Stock Exchanges.

It has been contracted to fabricate and construct ten Arafura Class Royal Australian Navy Offshore Patrol Vessels (OPVs). To deliver this contract Civmec is constructing a purpose-built world-class Ship Assembly Hall at the Australian Maritime Complex that will provide the greatest shipbuilding capacity in the nation - able to house entire Air Warfare Destroyers, Frigates and OPVs.
Primary industries

Western Australia will be a leading producer of premium value-added agricultural products and renowned for its innovative approaches to primary industries such as agriculture, forestry and aquaculture.

Agrifood exports from WA make up 13.2% of total Australian Agrifood exports

More than 80% of Western Australian agrifood is exported

Major exports:
- 48% Cereals and Grains
- 18% Pulses, pastures and oilseeds
- 15% Meat and livestock products

WA agrifood exports $6.3 billion (2017/18)

WA produces more grain than any other state in Australia

References on this page obtained from the Department of Primary Industries and Regional Development. Particularly Western Australia’s Agrifood, Fibre, Fisheries, Forestry Industries 2018
Western Australian primary producers and food processors have a significant opportunity to meet rising demand from Asia’s expanding urbanised middle class for premium, safe, nutritious and traceable food and beverages.

**Our strengths**

Western Australia produces a range of agricultural commodities. We are known for using our geographic isolation and world-class biosecurity practices to our advantage to ensure produce is free of diseases, pests, contaminants and industrial pollutants. We also have a sophisticated and modern supply chain, including efficient and secure storage and transport infrastructure and the added benefit of proximity to key Asian markets.

Western Australia is fortunate to have 12,900 kilometres of coastline and pristine waters with an astonishing diversity of marine life, which has allowed us to create an ecologically-sustainable fisheries industry. Australia’s most valuable fish species, the Western Rock Lobster, accounts for around 75 per cent of our fisheries exports. Pearl farming, including the globally renowned South Sea Pearl, account for a further 15 per cent of fisheries exports, while aquaculture is an emerging opportunity for several finfish and shellfish species.

Our distinct climatic conditions, along with available land and water resources, enable year-round production of agrifood, fisheries and aquaculture products, including a viticulture industry showcasing world-class wines from the south-west region. We also benefit from a dynamic and innovative culture within the sector, with well-educated primary producers supported by a network of agribusiness professionals and scientists that underpin sustainable and profitable businesses.

As long-term returns on investment for many farm businesses exceed those available on the Australian Stock Exchange, we are seeing increased private equity and investment in the sector.

**Our opportunities**

Global food demand continues to grow and world food production will need to increase by 70 per cent by 2050 to keep up with demand. Consumer preferences are also changing, due to the rising middle class. There is an increased desire for convenient, organic and environmentally sustainable produce in a range of flavours. In addition, information regarding provenance and nutritional value is highly valued and attracts premium prices. Western Australia’s existing strengths mean that we are well positioned to meet these demands.

One of our greatest growth opportunities in this area comes from processing or transforming agricultural produce into distinctive products for niche markets (value adding). A competitive value-added sector has the potential to increase the State’s agriculture revenue substantially by 2025, attracting new investment and creating additional jobs.

Climate change and food sustainability present a key risk for the primary industries sector. Reduced winter and spring rainfall across the State’s south-west has challenged productivity, driving innovation. This includes the development of new cultivation techniques and crop varieties and the use of different crop and pasture rotations. The ability to tailor technologies and farming methods to respond to both climatic changes and changing consumer preferences provides an opportunity for Western Australia to become a world leader in food and beverage production.

As consumer interest around food sustainability continues to grow, we can attract premium prices through provision of information about content and origins. By showing that our value-added food and beverages are safe we will capture a greater share of this growing market, creating jobs and aiding economic growth.
Government initiatives

Government recognises the importance of increasing productivity in the primary industries sector and capturing more value from food and fibre exports as part of transitioning to a more diversified economy. We are committed to working with producers, industry and investors to exploit our competitive advantages and capture market opportunities in these areas. The below initiatives will assist in achieving these objectives:

Develop a primary industries strategy

Government will develop a Primary Industries Strategy for release in 2019. Work has also commenced on industry development action plans, with growth opportunities identified for aquaculture, wine, lamb, culinary oats, and malting barley.

Improve digital connectivity

To support widespread adoption of digital farm technologies and drive better digital connectivity for agricultural and pastoral businesses in regional Western Australia, the State Government is providing a Digital Farm Grants program.

Support regional growth initiatives

Government is committed to supporting regional opportunities to grow the primary industries sector, including through provision of funding for growth and diversification projects.

Cotton on the Ord

The Ord has a potential total irrigation area of over 57,000 hectares using the vast water supplies from Lake Argyle. Recent commercial scale cotton trials have produced positive results and cotton has been identified as a potential crop for growers. Establishing cotton on the Ord will provide significant benefits to the northern beef sector, as cotton seed separated from the fibre is a high protein food source for cattle. The Government is also revitalising the Frank Wise research centre to make sure we have a pipeline of food and fibre opportunities to respond to global demand.

Supporting Grains Research

To support a globally competitive grains sector and drive Western Australian grains jobs, the Government has entered into a $48 million scientific partnership with the Grains Research and Development Corporation, and committed $14.5 million for the Boosting Grains Research and Development program. The Northam Grains Research facility, opened in 2018, was an $11.5 million State investment in WA’s premier regional centre for crop research and innovation.

Rebuilding our sheep and wool industries

Western Australia’s sheep industry contributes almost $1.6 billion annually to the WA economy and underpins many farming and regional communities. This Government is committed to continue rebuilding the WA sheep flock and increasing resilience in the sheep and wool industries. Investments in research and innovative decision support tools will help drive production gains and provide a competitive edge for the sheep industry in Western Australia.
In Focus: Mid-West Aquaculture Zone

Huon Aquaculture are establishing a farm for yellow-tail kingfish off Western Australia’s Abrolhos Islands, in the Mid-West Aquaculture Development Zone. It is estimated that by 2030 investment in the Mid-West Aquaculture Development Zone will create more than 3,000 direct and indirect jobs. Government is supporting industry growth in this area through hatchery facilities for marine finfish at Fremantle and a shellfish hatchery in Albany.

In Focus: Mottainai Lamb

Mottainai Lamb is an innovative lamb product being produced at Nilgen, north of Perth, in a collaborative arrangement between Sumich Farms and Suzannah Moss-Wright. The product is both unique and sustainable because the lambs are fed using excess horticultural produce (such as vegetables not suitable for supermarkets).

A finished Mottainai lamb weighs around 62-64 kilograms, which is approximately 17 kilograms (or over one-third) heavier than lamb typically produced in Australia, and it is being recognised by chefs around the world for its unique flavour, texture and marbling.

Using horticultural excess for feeding purposes is expected to keep 20,000 tonnes of waste out of landfill by 2020. This is an example of Western Australia’s ability to deliver outstanding products to the international market through niche business innovation.
Perth and its role as Western Australia’s capital

Perth is Australia’s western gateway.

With a population of more than 2 million, Perth is an important economic powerhouse for Western Australia. It is supported by a strong business community, a highly skilled and engaged population, quality infrastructure and services, premium education, cultural and recreational offerings and locational advantage. Consistently rated amongst the world’s most liveable cities, it is now one of the more affordable cities in Australia and also the sunniest capital, averaging over eight hours sunshine a day.

As our State’s capital, Perth is critical in achieving greater economic diversity. It is home to around one third of companies listed on the Australian Stock Exchange and boasts the shortest travel times of any Australian state capital city to key markets in Asia, Africa, the Middle East, Europe and the United Kingdom.

Perth is the prime destination used to promote Western Australia on the domestic and global stage, driving tourism, investment and migration. Sharing a time zone with many Asian neighbours, Perth fosters connectivity with these markets to showcase opportunities available in the State.

Perth attracts migration as Western Australia’s hub for premier higher education. Our capital city is home to the University of Western Australia, Curtin University, Edith Cowan University, Murdoch University, the University of Notre Dame and a number of world class Technical and Further Education (TAFE) institutions.

Perth also has a strong creative and cultural industries sector. This includes the Western Australia Academy of Performing Arts, the Western Australia Museum, Art Gallery of Western Australia, Optus Stadium, RAC Arena and an emerging film and interactive technologies sector, anchored by ScreenWest. These creative, cultural and recreational opportunities are an important part of Perth’s identity and are critical to the liveability and attractiveness of Perth as a place to live and work.

Perth will continue to be central to economic activity and growth for Western Australia. Government is committed to ensuring it is a resilient capital city that contributes to economic diversification and job creation, through investment attraction and innovation.
Perth has a population of over 2 million people growing to 3.5 million by 2050.
The role of the regions

Regional priority of Government: 30,000 jobs by mid 2024

With an enormous land mass covering around 2.6 million square kilometres, Western Australia’s regions possess valuable competitive advantages, diverse resources, infrastructure assets and key attractions.

The map opposite shows an outline of Western Australia overlaid with existing sector strengths to provide a visual representation of the current economic landscape.

All of Western Australia’s regions make extraordinary contributions to the economy. The spread of natural wealth, coupled with passionate and resourceful residents, means that regional Western Australia punches well above its weight in terms of generating income for the State. Home to around 25 per cent of the State’s population, the regions account for nearly 35 per cent of Gross State Product, across an array of industries.

There are strong tourism attractors across the State, from the iconic gorges and rock art in the Kimberley, through to the Ningaloo Reef and Shark Bay World Heritage Areas, the Pinnacles, stunning beaches, wineries and local produce in the South-West and Great Southern. A number of sporting and cultural events in our regions attract local, interstate and international tourists, including the Dowerin Field Days, Ord Valley Muster, Kalgoorlie Cup and Margaret River Gourmet Escape.

Mining and energy resources are also spread throughout the State. The Pilbara is known as the State’s powerhouse for resource projects and is one of the most prospective areas in the world for large scale renewable projects. There are valuable mineral and energy resources all over Western Australia. Significant rare earths are mined in the Kimberley, renewable energy potential is present across the Mid-West and Wheatbelt, the Goldfields are home to the famous Super Pit gold mine and the Peel, South West and Great Southern regions contain reserves of mineral sands and will be home to the State’s three lithium processing facilities.

The spread of primary industries throughout Western Australia is so broad that it is difficult to accurately capture on a map. Unrivalled seafood and livestock come from across the State, while the South West and Great Southern regions produce world-class wine and premium food such as truffles. The Gascoyne food bowl is famous for its bananas, mangoes and other fresh produce and the Wheatbelt produces around six per cent of all grain exports internationally – making it the 7th biggest producer in the world.

While regional Western Australia is already an economic high achiever, the Government is focusing on supporting growth and diversification to realise its vision for the State.
The role of the regions

Legend
- Mining and METS
- Tourism, events and creative industries
- Technology and Advanced Manufacturing
- Energy
- Primary Industries
- International Education

Major Ports
- Major Airports

Areas:
- Kimberley
- Pilbara
- Mid West
- Goldfields-Esperance
- Wheatbelt
- Metropolitan
- Peel
- South West
- Great Southern

Locations:
- Exmouth
- Carnarvon
- Geraldton
- Carnarvon
- Karratha
- Port Hedland
- Exmouth
- Dampier
- Newman
- Kununurra
- Broome
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Economic Development Framework for Western Australia

“Paraburdoo”, light sculpture by Craig Walsh part of DADAA’s FIVE Project. Photo by the artist
Realising a diverse, resilient economy will take time and effort, but the benefits to Western Australia over the longer term will be substantial.

The primary measure of success of this Framework will be achievement of the Government’s Priority Target of 150,000 jobs by mid 2024 (including 30,000 additional jobs in regional WA).

Monitoring progress of this Our Priorities target will occur through the process established for this purpose.

In addition, Government will establish a robust system of implementation and monitoring for this Framework which will include:

• Bi-annual reporting to Cabinet’s Jobs and Economic Diversification Cabinet Sub Committee on:
  - Progress of initiatives outlined within the Framework; and
  - Key economic indicators.
• Requiring periodic updates to the Framework (at least every 5 years) to ensure currency; and
• Publicly reporting a summary of the progress of implementation and economic indicators.
Appendix 1: Our strengths and advantages

For Western Australia to grow its economy there needs to be a detailed understanding of the State’s strengths and advantages so that it can best leverage current and emerging global opportunities.

Western Australia’s inherent strengths include:
- Natural environment;
- People;
- Connection to the world;
- Ease of doing business; and
- Infrastructure investment.

To date, Western Australia has used its competitive advantages to become a world-leading commodities producer with a strong focus on minerals, energy and agricultural products. The State also has a growing internationally competitive services sector, leveraging its skilled workforce and business environment. These service sectors include world-leading international education providers and groundbreaking research and development institutions in a range of fields including health and cybersecurity.
Natural environment

Western Australia covers the western third of Australia, with 12,900 kilometres of coastline and more than 2.6 million square kilometres of land area. Most of Western Australia’s coastline consists of untouched beaches and is surrounded by two of the world’s biggest oceans – the Indian Ocean and the Southern Ocean. The State has five climatic zones from a tropical climate, turquoise waters and spectacular gorges in the north, to the Mediterranean climate, wineries and forests in the South West.

One of the world’s most productive and diversified mineral and petroleum regions

Western Australia has an abundance of valuable natural resources. It produces a third of the world’s iron ore, nearly a quarter of the world’s rare earths, and over a tenth of the world’s LNG. It is also home to the world’s largest known single lithium resource.

Western Australia is one of the most productive and diversified mineral and petroleum regions in the world, with more than 50 mineral and petroleum products being produced in commercial quantities worth $127 billion in 2018. The State is home to 127 principal mining projects and hundreds of smaller quarries and mines. The main resources extracted in Western Australia are iron ore, natural gas, gold, alumina and nickel. China, Japan and South Korea are currently our largest export partners, accounting for almost 75 per cent of Western Australia’s exports. Western Australia hosts nine of the world’s top 50 mineral projects, including an astonishing six of the world’s 10 highest valued projects. No other nation – let alone a single state – can claim more than one of the world’s top 10 projects.

Whilst mining is finite, GeoScience Australia estimates that Western Australia has Accessible Economic Demonstrated Resources of around 45,875 million tonnes for iron ore alone, which at 2015 production levels would imply a resource life of 60 years. The State’s conventional gas resources are estimated to be more than 130 trillion cubic feet, while oil and natural gas liquids reserves are estimated to be at around 1,700 million barrels.

Western Australia is a global powerhouse in LNG production with an established and reliable LNG export industry. The State’s first LNG project, the North West Shelf, will celebrate 30 years of LNG exports in 2019. Western Australia currently has four operating LNG export projects: the North West Shelf, Pluto, Gorgon and Wheatstone. By mid-2019, the State will have five operating LNG export projects with a total capacity of close to 50 million tonnes per annum.

Around 90 per cent of Australia’s estimated recoverable conventional gas reserves are located in the Carnarvon and Browse basins in the State’s North West. These gas fields support Western Australia’s LNG export industry, as well as the State’s domestic gas market.
Western Australia currently leads the world in the production of the mineral components of lithium batteries and is the only place in the world that produces all the commodities necessary to make lithium batteries. The manufacturing of energy storage devices such as lithium batteries is continually evolving and the market for component materials that make up these devices (lithium, nickel, manganese, cobalt, vanadium, tin, tantalum, magnesium etc.), known as ‘New Energy Metals’, is growing rapidly and predicted to continue to expand for the foreseeable future.

Western Australia already produces more than half the world’s lithium and has abundant stores of the remaining New Energy Metals. Currently Australia captures approximately 0.5 per cent of lithium’s ultimate value. It is predicted that secondary processing in Western Australia would enable an additional 12–27 per cent of the value to be captured.

One of the world’s most bio-diverse landscapes

Western Australia is one of the world’s 36 biodiversity hotspots and a significant percentage of the nation’s unique flora and fauna thrive within it.

As well as being home to iconic Australian animals, such as red kangaroos and crocodiles, Western Australia has 141 of Australia’s 207 mammal species, more than 400 reptile species (40 per cent unique to Western Australia), 1,600 fish species and more than 12,000 species of wildflowers – making it the largest collection of wildflowers in the world.

Western Australia is also home to the World Heritage listed Ningaloo Reef, the world’s largest fringing reef stretching 300 kilometres along Western Australia’s north-west coast. The Ningaloo Reef is home to more than 250 species of coral and over 500 species of fish making it one of the most biologically diverse marine environments on the planet. Ningaloo is also frequented by the famous whale shark, as well as large numbers of turtles, dugongs, manta rays and annual visiting humpback whales migrating from the Antarctic. Tourists flock from all over the world to see these incredible species, in particular the whale sharks and humpback whales.

The south-west of Western Australia is also considered to be amongst the five most mega diverse regions on Earth with some of the richest and most unique reservoirs of plant and animal life. Approximately half of the south-west’s 8,000 plant species are found nowhere else in the world.

Aboriginal people have long been aware of the health and other benefits of many of our native species. Combining this knowledge with modern scientific techniques provides Western Australia with a significant competitive edge in medical research, pharmaceutical innovation, bio-conservation and education.
A unique and attractive climate

From the Mediterranean climate in the south and desert in the east to tropical conditions in the north, Western Australia offers a vast array of different experiences. Western Australia’s capital city of Perth enjoys sunshine for an average of eight hours a day, with a total of 131 perfect blue-sky days every year making it one of the sunniest capitals in the world. This gives the State a competitive advantage in agriculture, tourism and secure supply of solar power.

Agriculture and high-quality produce

As a result of its favourable climate, rich biodiversity and quality farming practices, Western Australia is also a significant agricultural exporter and producer of high quality food and beverage products. Agriculture is Western Australia’s second major export industry and the state is known as one of the most disease and pest free agricultural production areas in the world. Western Australia is Australia’s largest grain-producing region, exporting wheat, barley, oats and canola to over 30 countries and accounts for over 80 per cent of the world’s lupin exports. Western Australia is also a world leader in animal exports, dairy and pork products.

However, Australia presently accounts for less than three per cent of global food trade. With the global population expected to reach 9.725 billion by 2050, Western Australia’s agricultural industry has opportunities to further develop food production, food security and technology, research and development, sustainability and human resources. In particular, as global demand for safe and high quality agricultural products continues to grow, the opportunity exists to significantly expand Western Australia’s food production and processing.

Western Australia’s high quality food and beverage products also attract around 400,000 dedicated gourmet travellers annually. Western Australia is home to nine wine regions, each with their own unique characteristics and qualities, including the world-renowned Margaret River and the state’s oldest wine growing region, the Swan Valley. Western Australia is also known for its seafood and highly prized black truffles.

People

There are over 2.6 million Western Australians spread over a 2.6 million square kilometre landmass. Over 90 per cent of the population live in the Greater Perth and the southwest regions. Western Australia is amongst the most diverse, multicultural regions in the world, with 60 per cent of people born overseas or having at least one parent born overseas. Western Australia is home to people from over 200 nations who speak over 240 languages.
Western Australia has approximately 1.4 million people in its workforce. This workforce is highly skilled and educated with nearly one million holding post-secondary qualifications. Almost half a million Western Australians have a Bachelor Degree or higher.

The workforce is also younger than the national average with participation rates amongst the highest in the nation. Over the last decade, Western Australia’s unemployment rate has typically been lower than the Australian average. Western Australia has a strong history of drawing skilled migrants from across the globe on the basis of its excellent working conditions, attractive lifestyle and variety of interesting jobs.

The Western Australian lifestyle

Western Australia has endless world-class beaches, excellent wineries which are comparable with the best in the world and stunning national parks. It is an open, diverse society that respects the rights of individual freedom and the rule of law. Western Australia offers high quality food and wine, breathtaking natural experiences, ancient Aboriginal culture and stunning landscapes. Some of Western Australia’s world renowned sights and events that attract tourists to the State include:

- World heritage listed sites, including Ningaloo Reef, Shark Bay and Fremantle Prison;
- National Parks including Karijini National Park and Leeuwin-Naturaliste National Park;
- Rottnest Island and Kings Park;
- Margaret River wine region and annual events including the Gourmet Escape and Margaret River Pro;
- Bremer Canyon – the best place on the Australian mainland for reliable Orca viewing;
- Other south-west attractions including Busselton Jetty and the Bibbulmun and Cape to Cape walk tracks, along with the Munda-Biddi trail for off-road cycling; and
- The world’s earliest discovered rock art in the Kimberley region.

Western Australia, and in particular Perth, has a competitive cost of living, efficient transport systems, a diverse multicultural society and safety. Western Australia’s healthcare, education and law and order systems are also amongst the most well-funded and highest quality in the world, making Western Australia an attractive place not only for travellers but also those looking to relocate for work or study. More than 50,000 international students currently live and study in Perth and by 2025 it is predicted that Perth will host up to 100,000 international students from around the globe. Perth has consistently ranked in the top 10 most liveable cities in the world and in 2017 was voted the world’s second friendliest city.
Some of the highlights of Perth city include:

- World class schools, universities and educational facilities;
- Greatest number of restaurants per capita than any other Australian capital city;
- More than 2,000 additional hotel rooms opened in the CBD and greater Perth in the last five years, and a further 2,500 rooms either committed or under construction; and
- Some of Australia’s most affordable housing with median rents around 40 per cent cheaper than Sydney.

Connected to the world

Western Australia is uniquely positioned to contribute to and benefit from the unprecedented growth in Asia and the Indian-Pacific region. The global economic and strategic centre of the globe is rebalancing to the Indian-Pacific, where 60 per cent of the global population resides and where more than three billion middle class people will live by 2030. Over the next 50 plus years, China and India will experience significant expansion and urbanisation rates and develop into new power houses of the world economy. With close proximity and trade relationships with Asia, Western Australia now has an unprecedented opportunity to engage in the Indo-Pacific and prosper within and beyond our traditional operating sectors.

This connection with the Indo-Pacific was recently strengthened with the laying of the new 2,400 kilometre sub sea cable system from Christmas Island to Floreat Beach in Perth. Work is now underway to extend the cable from Christmas Island to Singapore and Jakarta in order to facilitate faster and more reliable internet connections between Australia and South East Asia.

Currently serviced by 18 major international airlines and 12 regional and domestic carriers, Perth enjoys the shortest travel times of any Australian capital city to key markets in Africa, the Middle East, Europe, the United Kingdom and most Asian markets. The introduction of non-stop flights from London to Perth has now cemented Western Australia’s position as the western gateway to Australia. 90 per cent of Western Australia’s international visitors arrive by air and over the 2017/18 financial year, there were 4.36 million international passenger movements through Perth Airport.

Western Australia also shares a time zone (of plus or minus 2.5 hours) with 60 per cent of the world’s population. Among these countries are most of Western Australia’s key economic partners, including China, Japan, South Korea and Indonesia, which together accounted for 92 per cent of all Western Australian merchandise exports in 2015.
Perth is also the only Australian state capital that has overlapping core business hours with the United Kingdom and Europe, which enables flexible and productive business engagement.

Western Australia’s LNG projects are located relatively close to the world’s biggest LNG importers in Asia, comparing favourably to the shipping distances with those of our major competitors. The shipping distance from Western Australia’s LNG projects to Japan is around 3,400 nautical miles (compared to 6,493 nautical miles from Qatar), with similar shipping durations to South Korea, China, Taiwan and India.

A great place to do business

The private sector is the primary driver of economic growth, diversification and job creation in Western Australia. Western Australian businesses are innovative and world leading with a high level of confidence and growing investment. As a result, the private sector has created over 390,000 jobs over the last decade.

Perth’s emergence as a corporate centre for the resources sector over the past decade has resulted in a shift of corporate activity within Australia from the east coast to the west. Western Australia is the headquarters of a significant proportion of Australian Stock Exchange (ASX) listed companies. There are also more than 400 international companies with a strong presence in Perth, including 78 of the Financial Times’ Global 500 companies, from diverse sectors such as resources, global finance, business, legal, aviation, transport and logistics. Many of these companies have been drawn to Perth by the opportunity to provide support to mining and resources.

The mining sector in Western Australia has started to show signs of improvement over the past year, returning significant confidence to the State’s job market. The largest increases in employment through the year to the September quarter of 2018 were in public administration and safety (up 22,190 jobs) and mining (up 20,471 jobs).

In the Fraser Institute’s most recent annual survey, Western Australia was identified as the most attractive jurisdiction in the Oceanic region and among the top five most attractive jurisdictions in the world for mining investment. The Western Australian Government is committed to ensuring both taxes and business regulation are competitive to encourage business investment and position Western Australia as a great place to do business.

Western Australia and Perth in particular is developing a significant innovation and research system, supported by a wide variety of Government and industry innovation hubs, one of the world’s most advanced scientific supercomputers and Innovation Central – part of the global network of CISCO Innovation Centres.
Sustained economic infrastructure investment

Western Australia has invested significantly in infrastructure that assists industries to be competitive internationally and allows the movement of people, goods and resources. Infrastructure development is beneficial in the short term, as seen through the high rates of employment and investment in the mining construction boom, but is also an enabler for sustained competitiveness, growth and jobs in the long term.

Western Australia has the nation’s largest network of ports. There are currently eight port authority ports and nine non-port authority ports in Western Australia. Port Hedland remains the highest tonnage port in Australia and the largest bulk commodity export port in the world.

The Western Australian State Government is also making significant investments through METRONET – a large scale investment in public transport, including up to 18 new stations and over 5,000 hectares of land in new station precincts across Perth.

Western Australian Governments have also invested heavily in health care infrastructure to support the future health of its residents. From 2008-2018, more than $7 billion was spent building new hospitals and improving existing health facilities across the State. Significant Government investment has been made to support and underpin the development of tourism.

Work is being undertaken to encourage greater visitation to outdoor areas and natural attractions, opening up our national and regional parks to tourists through conservation and eco-friendly accommodation and facilities. Additionally, road upgrades are being undertaken on key tourist routes across the State to improve access and safety.

Western Australia will continue to build upon its existing strengths and advantages in order to capitalise on emerging global trends in order to further grow and diversify the Western Australian economy.
Appendix 2: Capitalising on global trends and opportunities

The rising middle class

Advances in global education, health and technology have helped empower individuals across the globe to rise out of poverty and 140 million people join the global middle class every year. By 2020, an estimated 54 per cent of the world’s population will be in the middle class, and two-thirds of these are expected to live within the Asia-Pacific region.

Research shows that as incomes rise, consumption patterns tend to shift towards higher value foods, healthcare, education and recreation services, such as tourism, all of which Western Australia is well positioned to offer. Food demand in Asia is anticipated to rise with a particular shift towards higher value products such as premium wine, beef and seafood. This will create significant opportunities for the Western Australian agrifood sector over the next 20 years, as almost one billion people in the Asia region increase their demand for higher protein diets and niche food products. Western Australian food products such as beef and dairy are highly regarded in the Asian market.

Tourism Research Australia has forecast that international visitor arrivals to Australia will grow to 15 million in 2026–27, a 75 per cent increase from 2016–17. Asian tourists are forecast to be the largest contributors to growth over this time, due to increasing prosperity. Given Western Australia’s close proximity to, and shared time zone with Asian markets, there is significant opportunity to capitalise on this growth.

As Asian economies develop, their workforce will need upskilling and ongoing professional development. With its internationally recognised and experienced education providers, Western Australia has the capacity and capability to meet the needs of this growing international education sector. As one of the world’s most liveable cities, which is also affordable, Perth is attractive to live and study in. The overall growth in Australia’s international education sector makes it the nation’s third largest export, and with only 6 per cent share of current enrolments, there are significant opportunities for Western Australia to gain a greater share of this market.
Shifting demographics

Of the projected changes in Australia’s population, ageing is generally considered to be the most dramatic, particularly over the next fifty years.

Population growth depends on three factors – fertility, life expectancy and immigration; with each component having an impact on the age structure, sex ratio and cultural diversity of the population.

Improvements in healthcare contribute to longer life expectancy with the world population as a whole getting older. Birth rates now fall below replacement rates in countries that account for almost half the world’s population – including virtually all populations of European origin, Japan and China. As a result, it is now forecast that between 2015 and 2030, the number of people in the world aged 60 and over will grow by 56 per cent, from 901 million to 1.4 billion.

Between 2013 and 2017 the percentage of Australia’s population aged 65 and over increased from 14.4 per cent to 15.4 per cent. This is forecast to increase to between 18.3 per cent and 19.4 per cent in 2031 and between 22.4 per cent and 24.5 per cent in 2061. Currently in Western Australia, just under 14 per cent of the population is made up of people in this age group.

Likewise, the number of people aged 85 years and over is predicted to increase rapidly over the next 50 years. A greater number of men are also forecast to make up this age group as the life expectancy age gap between men and women narrows. This increasing proportion of elderly people is challenging social welfare systems both in Australia and globally.

The median age of the population is also increasing in Australia. Between 2000 and 2012, the median age increased from 35.2 years to 37.3 years. It is now predicted that the median age will continue to increase to reach 40.5 years by 2031 and between 41 and 44.5 years in 2061. Over the same period, Western Australia is expected to see an increase in the median age to between 40.1 and 43.5.

Important changes are also predicted for younger age groups. Australia’s working population (aged between 15 and 64 years) is predicted to fall from 67 per cent in June 2012 to around 60 per cent in 2061.

These changes will all have significant impacts on both the State and national economy. In particular, this will impact training, skills and employment opportunities, housing, health and allied services and retirement income planning.
Urbanisation

Today 55 per cent of the world’s population live in urban areas. The most urbanised regions include North America (82 per cent living in urban areas in 2018), Latin America and the Caribbean (81 per cent), Europe (74 per cent) and Oceania (68 per cent). By 2050, this is expected to increase to 68 per cent with the majority of the forecast growth coming from Asia and Africa. The growth is also predicted to be concentrated in just a few countries with India, China and Nigeria expected to see significant growth in their cities, particularly those with fewer than one million inhabitants.

Increasing rates of urbanisation will require ongoing infrastructure investment, which will help to maintain demand for Western Australia’s primary commodities, particularly iron ore. Energy demand in Asia is also likely to increase substantially through increasing population as well as higher per capita energy usage. Western Australia, with its abundant LNG, battery minerals, and renewable energy opportunities, is well placed to supply clean, sustainable energy to Asia. To date China has risen from a relatively minor market for Western Australia in the 20th Century, to now consume half of the State’s exports. In the future, China will likely continue to be a major source of growth with estimations that it will have to spend $13.1 trillion dollars (in 2015 dollars) on capital over the period from 2015 to 2030 to meet its infrastructure needs. The Chinese consumer is also likely to demand more premium goods such as food, tourism and education, which Western Australia is well placed to supply. Chinese demand is unlikely to grow the Western Australian economy to the degree it did over the last decade which was part of a commodity ‘super-cycle’. Instead China’s demand for Western Australian products is likely to grow more modestly and be for a wider range of goods and services so it is likely that China will remain our largest trading partner for the foreseeable future.

Western Australia will also be directly impacted by the global urbanisation trend with an increasing population and more people choosing to live and work in urban environments, particularly in the Greater Perth region. Western Australia will need to plan carefully to ensure sustainable high quality urban environments and continued regional population and economic growth.

Significant State Government attention is focused on the future urbanisation of Perth and ensuring that sustainable development occurs across the city over the next three decades.

The State is aiming to minimise the impact of urban growth on areas of environmental significance, to protect our heritage and to maximise the benefits of available land and infrastructure.

New planning and infrastructure frameworks have been developed that provide opportunities for higher-density residential development, particularly around activity centres, station precincts and along high-frequency public transport routes.
Climate change

There is overwhelming scientific consensus across the globe that human activities are contributing to environmental changes that will in future lead to increasing extreme weather events, rising sea levels, and higher temperatures. By 2050, it is predicted that the cost of extreme weather events could reach up to one per cent of global GDP per annum. For Western Australia, climate modelling predicts a number of future environmental changes including a decreased average rainfall in the south-west and increased average annual temperatures across the State.
By 2030 the rainfall in the south-west will reduce by between five per cent and six per cent and, in Perth, the number of days with a maximum temperature over 35°C will increase from 28 (1971–2000 average) to 36. In Broome the number of days with a maximum temperature over 35°C is forecast to increase from 56 to 87 by 2030. Agricultural drought and fire risk are also predicted to increase across the State, in particular in the south-west, as is the severity and geographical travel of tropical cyclones, severe storms and flooding in the north.

While these changes will have impacts on resources and tourism, they will be particularly felt by Western Australia’s agricultural sector. The State can meet these challenges by developing ways of dealing with climate change such as innovative farming methods. To date, Western Australian producers have proven to be creative and resilient in dealing with a drying climate. Further adaptation will be needed to respond to anticipated future climate change impacts. Western Australia is well placed with advanced and evolving ag-tech to provide services and solutions to support other countries experiencing the effects of climate change, aiding economic growth and diversification.

To tackle climate change, 197 countries around the world, including Australia and many of its trading partners, are signatories to the United Nations Paris Agreement to limit the global temperature rise to well below two degrees Celsius (above pre-industrial levels). Many countries are turning towards cleaner energy consumption to assist in meeting this target. Adapting to the impacts of climate change will be critical, as will be reducing carbon emissions and developing technologies that promote the efficient use of natural resources. Western Australia has the opportunity to be a major provider of green energy including; renewable hydrogen, solar and wind. We are also leading research in the areas of biomass and waste-to-energy solutions. In addition, our ability to supply the components (particularly lithium) and/or manufacture lithium-ion batteries means that we can also play a major role in energy storage solutions for the future.
Technology and automation

The rate of technological adaptation in society has increased dramatically over the last century. New technologies are being adopted at never before seen rates with today’s society more connected and open to new technologies than ever before. Information and communications technology (ICT) has transformed society over the last 30 years and a wave of technological advancement is creating opportunities for new growth sectors while disrupting existing industries.

Highly automated manufacturing, for example, has the potential to fundamentally change Western Australia’s place in global supply chains. Opportunities for domestic automated manufacturing will increase, thus enhancing our global competitiveness. However, Western Australia will need to ensure that as new, higher skilled and secure jobs are created locally, appropriate training is readily available to match the requirements of these jobs.

As vehicles become autonomous, the automotive, transportation, and logistics industries will likely converge into a broader mobility industry. Transportation sectors may be restructured where automated facilities, such as ports, are seamlessly connected with transportation and delivery services. There is significant opportunity for Western Australia to leverage these new technologies in the development of its ports and create world-class facilities. These facilities will be run by highly skilled workers as a range of new or revised jobs are created to direct, continuously improve and operate these machines.

Increasing levels of automation and smart technologies are being seen in the mining and resources industries and there is an opportunity for Western Australia to take advantage of these advancements in the production of batteries and electric vehicles. Studies into automation potential across 46 countries and 2,000 work activities found that 60 per cent of all jobs have at least a third of activities that can be automated. A recent report showed that digital technologies can represent the next frontier of productivity and economic uplift for Australia, with potential to contribute $140 – $250 billion by 2025. In addition, the World Economic Forum found that automation is likely to create an additional 133 million jobs that are more human services and technology focused.

Distributed ledger technologies, such as block chain, may result in superior, secure record keeping, faster customs and quarantine approval processes as well as ensuring proof of provenance.
Future global populations will expect systems to be networked, delivering seamless interconnectedness of services and goods. Future infrastructure and services will need to be built with this in mind including from a cybersecurity perspective. Western Australia will be home to the largest data collection device in the world, the Square Kilometre Array, which is driving cutting edge technological innovation in data management and transmission, and through its association with the Pawsey Supercomputing Centre, influencing radical developments in computer processing capacity.

To take advantage of the changes, government and industry will need to support workers to rapidly up skill and retrain so they are ready for these more complex jobs.

$140 – $250 billion could be contributed to the Australian economy by 2025 as a result of the development of digital technologies.
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