



GOVERNMENT OF
WESTERN AUSTRALIA

Diversify WA

Supply Chain Development Plan 2021-22



Minister's foreword

Western Australia is in an enviable position. Our success in managing the spread of the COVID-19 pandemic has driven a strong economic recovery.

Bolstered by sustained business investment, our economy is now one of the strongest in the world and continues to grow. Underpinned by these favourable economic conditions, WA's labour market has seen a rapid recovery since the onset of the COVID-19 pandemic, with unemployment now at its lowest level in almost 8 years.

However, with the growth of our exports reaching a record \$223 billion in 2020-21, accounting for well over half of national exports, WA remains the country's most trade-exposed state. This leaves us vulnerable to future shocks and structural changes in the global economy.

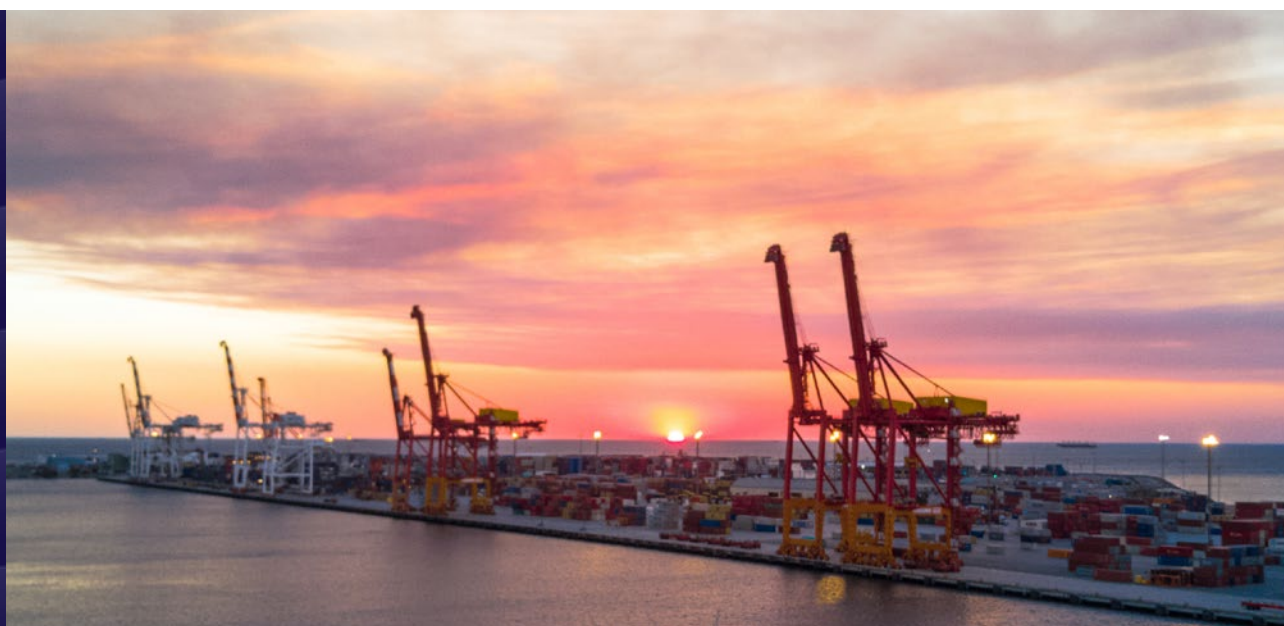
Diversification of our state's industries and supply chains will build our resilience to volatility in global commodity markets and allow us to better capitalise on our unique comparative advantages. It will also help



to unlock sustained long-term growth and transition our workforce into higher value jobs.

The Diversify WA: Supply Chain Development Plan 2021-22 (the Plan) will guide the Government's efforts to increase the participation of WA businesses in more diversified domestic and global supply chains.

Building on the commitments outlined in Diversify WA, the state's economic development framework, the Plan identifies key supply chain opportunities across a number of our priority sectors. These opportunities have



been designed to harness WA's comparative advantages, including our natural resources, industry capability, low-risk operating environment, robust environmental and social governance standards, highly skilled workforce, and technological leadership.

Securing the state's economic resilience requires us to foster our partnerships with existing export markets, while facilitating access to new markets and selling value-added products and services. To achieve this, it is critical that we understand and respond to key drivers and trends within international markets and strengthen our relationships with our trading partners.

WA has already made significant headway in these endeavours by establishing Invest and Trade WA and reforming the state's global network of investment and trade offices to strengthen our engagement and presence across international markets. Both Invest and Trade WA and the international offices provide ongoing strategic assessment of trends and opportunities in the state's key markets to support WA businesses wanting to access new export markets. This network also promotes the state's unique strengths and diverse industries to attract investment and grow trade activity.

Having established these important foundations, it is now critical for us to proactively seek opportunities to increase our participation in global and domestic supply chains. The Plan is designed to achieve just that and identifies opportunities that leverage our strong international reputation and local capability to strengthen our economy.

In a very competitive environment, our ambition is to build on WA's recognised strengths and harness our offshore partnerships to become a central player in the domestic and global supply chains of both established and emerging industries. This ambition recognises how much WA has to offer the world, amplified by our strategic location on the edge of the Indian Ocean at the gateway to South East Asia.

A strategic approach is critical to enable the state to not only capture the global opportunities that are currently on offer, but cement WA in the global supply chains of the world's emerging industries. I am confident that the collaborative approach adopted in this Plan will unlock this potential.

Hon Roger Cook MLA

Deputy Premier; Minister for Health; Medical Research; State Development, Jobs and Trade; Science



2019 Innovator of the Year Platinum Award Winner - Tensa Equipment for Roborigger

Executive summary

Historically, the WA economy has relied on the mining industry for business investment and economic growth. Over the past 30 years this reliance has grown stronger, with the state's revenue base more exposed than ever to volatility in global commodity demand, particularly for iron ore.

WA's mining industry provides billions of dollars each year in royalty revenues, directly supports over 100,000 jobs, and has been a critical pillar of the state's recovery from the pandemic. However, investment into the state's mining industry has not always fostered local participation in the supply chains of major mining projects or supported the development of other industry sectors. This trend has led to a lack of diversity in the state's economic base – a long-term risk that needs to be addressed.

A shift in global supply chains, driven by a rise in the digitisation and automation of production processes, environmental and social awareness, and changing geopolitical dynamics, has made diversification increasingly essential. The COVID-19 pandemic has accelerated this shift, as companies and countries around the world are shifting their

focus from supply chains designed for marginal efficiency to more strategic considerations of risk, resilience and transparency. This push for supply chain resilience has increased the pressure on some industries to reconfigure international production networks through near-shoring, regionalisation or diversification of their supply chains.

As an export-focused economy deeply integrated into global supply chains, WA needs to be responsive to these shifts in global trends. Competition between jurisdictions is intensifying to capture valuable investment associated with the relocation of global supply chain activities. A strategic and coordinated approach by government is critical to support industry to diversify operations and adjust resources to meet new market demands. Central to this task is facilitating the creation of an agile labour market, where workers have the skills and flexibility to move to jobs that have positive long-term prospects.

The Plan has been designed to support the growth of local industry capability within existing and new supply chains. It identifies synergies in growing targeted supply chain opportunities and seeks to promote a positive environment and coherent value proposition for industry to invest in WA.

The state's strong fiscal position has enabled the WA Government to invest in initiatives that aim to support the diversification and long term resilience of the state's economy. Building on this investment and existing economic development strategies and plans, such as the WA Recovery Plan, WA Jobs Plan and Diversify WA, the Plan identifies targeted opportunities to grow the capability, competitiveness and participation of WA businesses in the domestic and global supply chains of both established and emerging industries.



Photo: Premier Coal

The Plan guides the WA Government’s supply chain development efforts at 4 levels (Figure 1):

- » It supports the supply chain development layer within Diversify WA, the state’s economic development framework, to ensure supply chain activities both inform, and are informed by, the state’s overall approach to economic development, and are reflected in the framework’s implementation and reporting mechanisms.
- » It highlights 6 key enablers, including investment attraction, workforce and skills, infrastructure access, innovation, digital connectivity, and science and technology, which are critical to unlocking new supply chain opportunities across the economy.
- » It identifies tangible actions in 11 supply chain opportunities with strong benefit and feasibility prospects, which the WA Government will aim to actively grow.
- » It sets out a framework for the agile assessment and pursuit of supply chain opportunities as they emerge into the future.

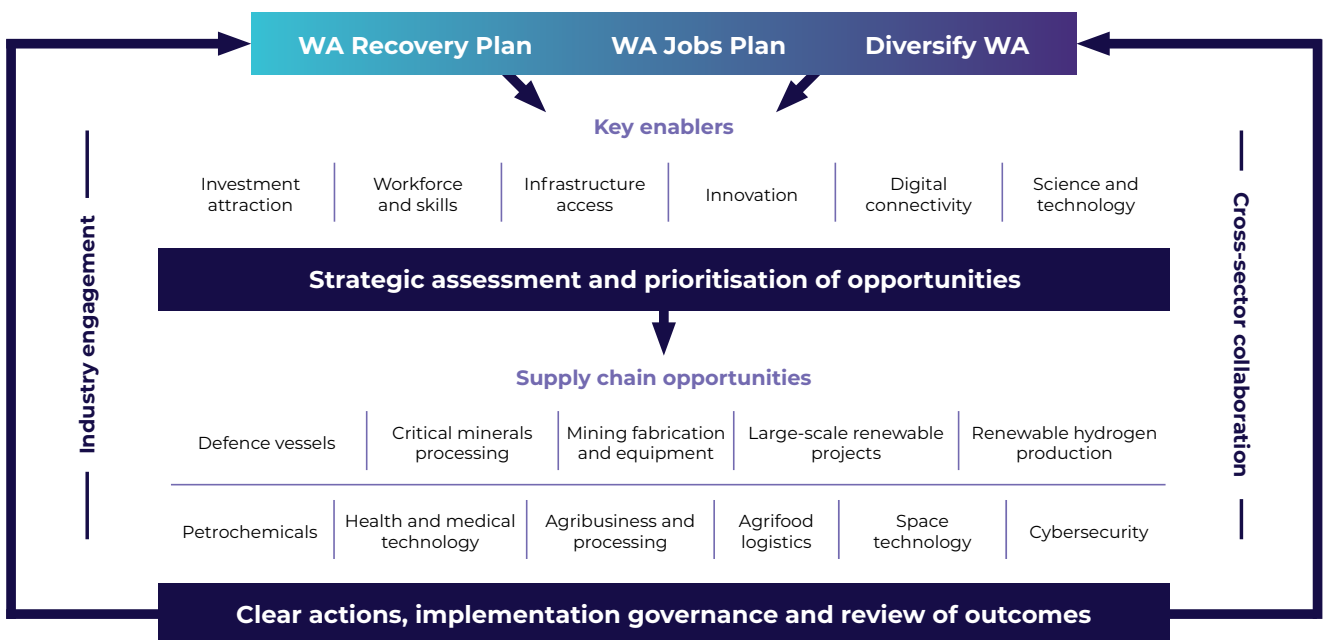
The WA Government has worked closely with industry to identify the supply chain opportunities outlined in this Plan and co-designed actions to support their activation. These opportunities have been identified in accordance with their:

- » alignment to global trends and demands
- » ability to leverage the state’s comparative advantages
- » potential economic benefits
- » implementation feasibility.

Engagement with industry has been ongoing with inputs for the Plan sought from industry representatives across a number of sectors including defence, mining and mining equipment, technology and services (METS), liquefied natural gas (LNG), energy, health and medical life sciences and primary industries.

It is intended that the Plan will be updated annually. Each update will evaluate new opportunities to ensure the WA Government’s supply chain approach remains adaptive, flexible and responsive to external shocks and changing consumer demands.

Figure 1: Diversify WA - Supply Chain Development Plan 2021-22



Introduction

Purpose

The purpose of the Plan is to promote the development of supply chains in the state's priority export markets through:

- » growth in the capability, competitiveness and participation of WA businesses in targeted supply chain industries
- » closer collaboration between industry and the WA Government to encourage the use of WA goods and services in supply chains
- » a regulatory environment that is more conducive to investment in local businesses that service supply chains.

Implementation of this Plan will result in WA businesses and workers delivering a greater share of goods and services into the state's export-facing supply chains. This will facilitate job creation and innovation in the state, and contribute to a more diverse, resilient and sustainable WA economy.

Alignment with the state's economic development framework

The reconfiguration of global supply chains is an opportunity for WA to further diversify its economy. Economic diversification is essential to reduce the state's exposure to boom and bust cycles, grow the economy and transition the workforce into higher value jobs.

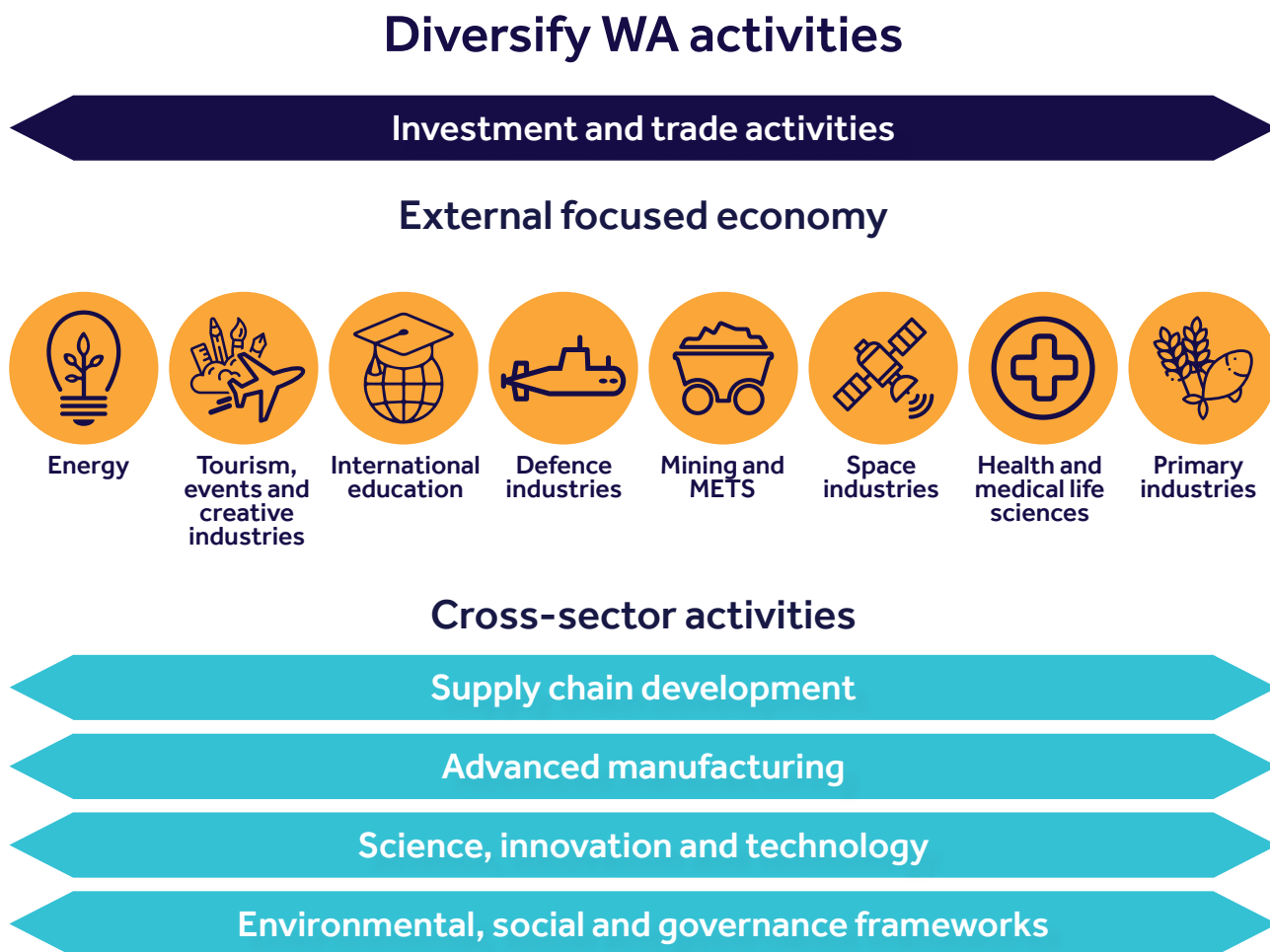
As Australia's most trade-exposed state, WA's goods and services exports underpin its economic growth, diversification and job creation.

Ongoing economic resilience requires the state to build on existing export markets, while facilitating access to new markets and selling new products and services.

The state's economic development framework, *Diversify WA*, was released in July 2019. The framework's vision is for WA to have "a strong



Figure 2: Diversify WA Framework



and diversified economy delivering secure, quality jobs through increased investment across a broad range of industries.” Through Diversify WA, the WA Government has committed to adding significant value to a range of sectors to foster their potential for growth. These sectors have been identified as the points at which WA’s strengths meet global demands.

The COVID-19 pandemic has provided an opportunity to review the economic development framework presented in Diversify WA and how the WA Government can best support the economy. The revised Diversify WA framework (Figure 2) includes 8 external-facing sectors: energy; tourism, events and creative industries; international education; defence industries;

mining and METS; space industries; health and medical life sciences; and primary industries.

The revised Diversify WA framework also recognises the importance of activities that will improve value and productivity across multiple sectors of the external-facing economy.

These cross-sector activities are:

- » supply chain development
- » advanced manufacturing
- » science, innovation and technology
- » environmental, social and governance (ESG) frameworks.

This Plan supports the supply chain development layer within Diversify WA.

Supply chains and supply chain activities

A supply chain is the network of individuals, businesses, resources, activities and technology involved in the creation and sale of a product. A value chain is a series of steps through which value is gradually added to a product. Each of these value chain steps has its own supply chain.

Figure 3 provides an example of the battery materials supply chain. The Plan focuses on export-facing supply chains, looking at activities that contribute to the export of raw and processed materials, energy, manufactured products and services. It considers opportunities to increase local supply chain activity through the replacement of imports in existing supply chains, value-adding to existing processes, or participation in the emergence of a new industry.

WA is an export-driven economy, with a large share of the investment flowing into the state directed toward activities that support export projects. WA's exports are dominated by goods exports, with services exports accounting for a small share of the economy relative to most other Australian states and territories. WA's exports are also very concentrated by both commodity and market.

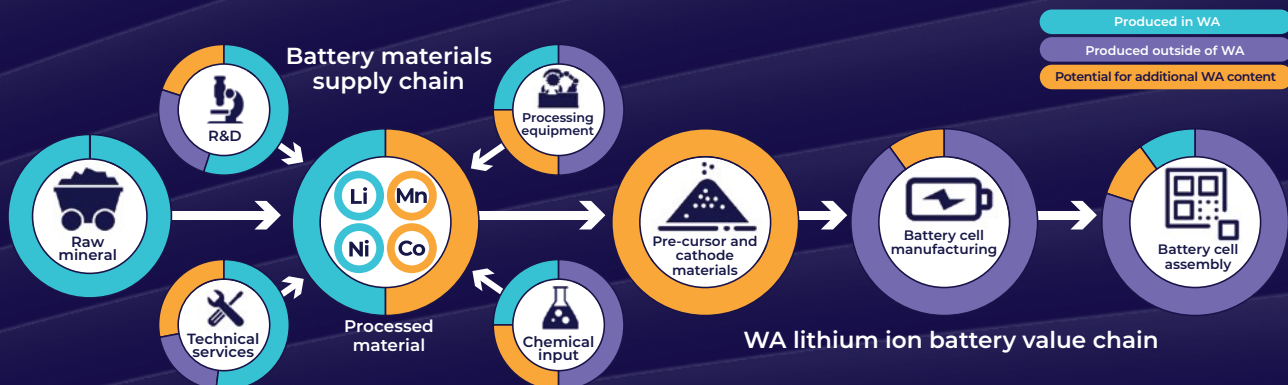


Photo: Austal

In 2020, three commodities – iron ore, LNG and gold – accounted for around 80% of the total value of WA's goods exports, while China by itself accounted for 56% of the total value of WA's goods exports.

This Plan focuses on building more diversified export-facing supply chains. It considers opportunities to increase local participation, identify new opportunities through value-adding to existing processes, strengthen relationships with a broader range of international markets, and expand sources of investment and trade.

Figure 3: Example of a supply chain



Context

Trends in global supply chains

Goods and services take long and complex journeys through global supply chains as raw materials are transformed into consumer products through a pipeline of value-adding processes. These intricate networks contain vulnerabilities and opportunities that are exposed through external shocks and changing market conditions. This became evident during the COVID-19 pandemic when the resilience of supply chains were tested by:

- » downturns in manufacturing production, as factories closed to mitigate health risks
- » reduced air freight cargo capacity, as the number of flights were significantly reduced due to state and international travel restrictions
- » less efficient maritime terminals and sea ports, as quarantine measures and a reduced workforce slowed turnaround times
- » constrained access to tourists and students, as restrictions on entering and exiting countries were put in place
- » significant variations in demand for goods and services.

While the COVID-19 pandemic has delivered one of the biggest economic shocks in recent history, it is just the latest in a range of threats, from financial crises to extreme weather, which are occurring more frequently. These threats are shifting the focus of companies and countries from supply chains designed for marginal efficiency to more strategic considerations of risk, resilience and transparency. This



shift is occurring against the backdrop of important structural changes, including:

- » production becoming more knowledge-intensive and reliant on high-skill labour, with digitisation becoming prominent and the complexity of manufacturing increasing
- » the share of global trade based on labour-cost arbitrage declining, with changing cost structures across countries and the increased use of automation technologies
- » the regionalisation and nearshoring of supply chains, especially within Asia and Europe, where proximity to consumer demand is ensuring speed to market
- » rising demand for products and services with reduced environmental and social costs, and improving technological solutions to meet this expectation
- » growing geopolitical and trade tensions.

The COVID-19 pandemic has accelerated most of these trends, and will likely lead to a reconfiguration of investment flows into supply chains.

Opportunity for WA – showcasing the state's strengths

As an export-focused economy deeply integrated into global supply chains, WA is in a prime position to take advantage of this global shift, due to the key strengths of its economy, which include:

- » a secure and low-risk operating environment
- » a highly skilled workforce
- » world-leading research, innovation and technology development
- » a policy and regulatory framework that provides global confidence of sustainable and ethical supplies
- » a strong potential for clean energy
- » proximity to large markets throughout Asia.

The state is a world-leader in minerals and petroleum exports, and a major exporter of agricultural and food products and specialised manufactured goods. Boosting the role of WA businesses in the supply chains of resources and downstream processing industries is an effective way of capitalising on WA's position as one of the most productive and diversified resources jurisdictions in the world. Capability

and technologies developed in the resources and associated downstream processing industries have transferred to other parts of the economy and equipped WA companies to compete for investment in areas of emerging demand, such as automation, robotics, remote operations, cybersecurity and hydrogen production.

WA has a robust regulatory approvals system that can assist investors in meeting global environment, social and governance standards. The WA Government is committed to environmentally responsible production processes, which is reflected through the following environmental regulatory policies and commitments:

- » establishment of a net zero greenhouse gas emissions target for WA by 2050
- » development of a WA Climate Policy to position the state for a low-carbon future
- » development of a WA Energy Transformation Strategy to ensure the delivery of secure, reliable, sustainable and affordable electricity
- » implementation of a comprehensive environmental approvals process.

The WA Government is committed to the development and expansion of industry and local capability through the establishment and



implementation of the WA Jobs Plan, Diversify WA and a number of sector-specific strategies.

Prospective investors to WA can apply for project facilitation support through the WA Lead Agency Framework. The framework provides proponents a single point of entry and assigns one department to assist and coordinate approvals. The lead agency can also support the proponent by providing access to strategic industrial areas (SIAs), utilities and funding support for exploration, research and development and manufacturing.

In July 2020, the WA Government announced a series of new measures to accelerate action to streamline assessment and approval processes. These measures are designed to assist with cultural change, clarify expectations and improve proponent experience.

WA's strong response to the COVID-19 pandemic has driven a successful economic recovery. This has enabled a quicker than expected reopening of the economy and accelerated efforts to support businesses and communities, including through investment attraction in priority sectors.

Now is an opportune time to leverage WA's unique value proposition to attract investment in the supply chains of established and emerging industries. This effort should focus on the state's comparative advantages and reflect the WA Government's economic growth and diversification priorities.

Australian Government initiatives

While the WA Government, through this Plan, is progressing supply chain development activities in WA, successful implementation of the Plan will require ongoing collaboration with the Australian Government and private investors. At a national level, the importance of developing local capability in global supply chains is a key focus.



Photo: University of Western Australia

In implementing this Plan, a key focus of the WA Government will be strong collaboration with the Australian Government. This includes:

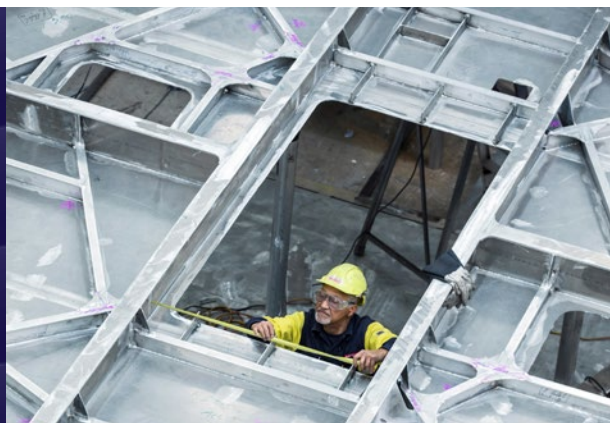
- » Aligning this Plan's opportunities with Australian Government strategies and policies to ensure a coordinated and strategic approach for overseas markets and investors.
- » Leveraging Australian Government funding, including the Modern Manufacturing Initiative, which identifies priorities that align with opportunities identified in this Plan, such as premium food and beverages, medical products, clean energy, defence and space.
- » Collaborating with the Australian Government and its Cooperative Research Centres to ensure a complementary approach to research development strategies, to provide a clear pathway forward for industry to leverage economies of scale, share knowledge and research, and drive innovation.
- » Working with the Australian Government's newly established Office of Supply Chain Resilience to ensure WA's supply chains are secure, reliable and resilient, gaps in supply chains are identified and that action is taken at all levels to address them.

Key enablers for supply chain development

The WA Government can help shape private sector investment, procurement and expansion through its decision making in areas such as policy, planning, regulation, infrastructure and spending. These decisions range from direct actions such as regulation or funding to stimulate a market, to collaborative approaches such as building awareness of an opportunity or sharing knowledge and data.

The Plan outlines a range of actions that the WA Government will progress to pursue targeted opportunities. The world's production networks are intricate webs forged through economic logic, significant investment and long-standing relationships. Well-articulated and targeted government action is necessary to encourage shifts in supply chain activities. Different investment and purchasing decisions from the private sector are also necessary for this to occur.

The WA Government will need to encourage these different decisions by working with industry to remove barriers and create the right environment for local investment. This will require addressing some of the longstanding challenges faced by WA industry, such as relatively high labour and transport costs, infrastructure bottlenecks and remoteness.



Within the context of Diversify WA, the Plan aims to create a positive environment for industry to invest in supply chain activities by focusing on key enablers. These enablers will ensure better capability, viability and coherence across the state's export supply chains. They constitute the basis of the state's supply chain actions and will help deliver improved local content outcomes. Ongoing engagement across government and industry has highlighted 6 key enablers:

Investment attraction – private investment is required to drive the growth of the supply chain activities the WA Government has prioritised.

Skills and workforce – specialised skill sets are required to grow local capability in targeted opportunities and workforce mobility across supply chains.

Infrastructure access – access to utilities, production and transport infrastructure is key to unlocking a number of supply chain activities for local small and medium-sized enterprises (SMEs).

Innovation – WA businesses need to innovate to capture new supply chain activities, through improving processes, developing new products, forming start-ups and accessing new markets.

Digital connectivity – access to adequate data speed is required to progress the digitalisation and automation of a number of supply chain operations.

Science and technology – building science and technology capability and investment is critical to improving the productivity, competitiveness and adaptability of the state's supply chain activities.

Investment attraction

The WA Government will attract domestic, interstate and international investment into targeted supply chain opportunities to diversify local industry, increase demand for local goods and services and secure trade in new sectors and with new markets.

WA has historically benefited from positive net investment, with the majority of this investment in the resources sector. However, investment into the state's mining industry has not always fostered local participation in the supply chains of major mining projects or supported the development of other industry sectors.

WA's current investment attraction approach is underpinned by Invest and Trade WA, which provides a 'front door' for investors and customers interested in doing business with WA. A number of mechanisms have been established to support Invest and Trade WA to secure investment and trade opportunities for WA, including:

- » a range of financial and non-financial investment attraction incentives
- » implementation of industry development strategies and plans that signal to investors the WA Government's economic diversification agenda
- » an agile network of international offices and the appointment of Investment and Trade Commissioners that foster relationships with investors in key markets
- » a Lead Agency Framework that facilitates project assistance for investors
- » Streamline WA, which makes it easier for investors to do business in WA.

WA is well placed to leverage and grow its existing investment attraction mechanisms to unlock targeted supply chain opportunities. This has been heightened by increased national and international competition for direct investment, as markets look to build more diverse, secure and resilient industries.

Key actions to support supply chain development 2021-22

Optimise the effectiveness of the state's investment attraction efforts, particularly in targeted supply chains.

- » Develop a multi-year whole-of-government strategy that consolidates and prioritises investable opportunities, is responsive to unanticipated opportunities and changing market conditions, and establishes clear outcomes and key performance indicators for WA's investment attraction approach.

Drive new industry creation to support the economic growth, diversification and resilience of the WA economy.

- » Establish a \$100 million Investment Attraction and New Industries Fund to develop new and emerging industries.
- » Leverage the Collie Futures Fund and Collie Industry Attraction and Development Fund to attract investment that will support economic diversification and jobs in the Collie region.

Strengthen global partnerships to access more overseas markets, global supply chains and secure investment in the state's priority sectors.

- » Leverage the state's international network to strengthen WA's trade and investment relationships.
- » Support Australia's Free Trade Agreements, including with India and Indonesia to facilitate greater trade and investment opportunities for the state.
- » Build on existing Free Trade Agreements and assist business to ensure their trade engagement is simpler, faster and more accessible.

The WA Government will focus on attracting investment into new and emerging industries to support its economic diversification agenda and leverage existing relationships within strategic markets to facilitate investment and trade outcomes.

Skills and workforce

The WA Government will invest in the development of general and specialised skills, and an agile labour market to meet the workforce needs of supply chain development priority areas.

Businesses are increasingly looking for highly trained workers, with skill sets and the flexibility to move between trades and sectors. Investing in local workforce capability has been accelerated due to COVID-19 driven constraints on interstate and international workforce mobility, which has also increased competition for labour. Promoting upskilling, re-specialisation and skills transfer can help meet the workforce needs of the state's supply chains, particularly for new and emerging activities.

The WA Government is building a skilled workforce across the state's supply chains by establishing strong strategic frameworks and funding a range of workforce and skills development programs. This includes implementation of the STEM Skills Strategy, delivery of the 'Lower Fees and Local Skills' initiative to support access to qualifications in areas of local industry needs, investment in education and training institutions, and leveraging the WA skilled migration occupation list.

The WA Government has an opportunity to invest in growing the capability of the existing workforce and increasing workforce mobility across supply chains. This includes undertaking a skills gap analysis to understand the workforce needs of existing industries and determining future training requirements and delivery, including demand for industries in the early stages of development. This will be critical to inform future government skills and training initiatives and enable the development of new supply chain activities.

Key actions to support supply chain development 2021-22

Build local industry training and skills to reduce the risk of skills shortages, alleviate high labour costs and meet the needs of the state's supply chain activities.

- » Establish a WA Jobs Taskforce to oversee implementation of the WA Jobs Plan, including identification of local job creation opportunities in new and existing industries, mapping skills gaps, identifying regional job opportunities and increasing training requirements to meet workforce needs.
- » Develop and implement skills and training initiatives in partnership with industry and South Metropolitan TAFE to meet the needs of existing and emerging industries.
- » Establish a new partnership with the Wirrpanda Foundation to provide Aboriginal jobseekers with targeted assistance to address specific barriers to employment.
- » Boost apprentices and training opportunities, particularly for SMEs with Group Training Schemes and for mature-aged apprentices through the Jobs and Skills WA Adult Apprentice Employer Incentive.



Infrastructure access

The WA Government will build infrastructure capability to unlock supply chain opportunities by de-constraining land, developing multi-user facilities and facilitating access to infrastructure and utilities.

The availability of project-ready land and access to key infrastructure, including power, water and gas services, and freight, road, rail and port connections, is critical to attract investment and de-risk new projects.

The WA Government provides land assembly and project facilitation support and assistance with approval processes for strategic projects and Strategic Industrial Areas (SIAs). WA has SIAs in 12 locations which service a range of sectors, including mining, oil and gas and downstream processing. The Australian Marine Complex (AMC) is also a critical hub to support the fabrication, assembly, sustainment and maintenance needs of the defence, marine, oil and gas, and resources industries.

The WA Government will continue to work with industry to ensure there is project-ready land and access to infrastructure to support and connect a range of supply chain activities.



Key actions to support supply chain development 2021-22

Develop and deliver project-ready industrial land to attract investment and unlock new supply chain activities.

- » Establish the Western Trade Coast Precinct as a Global Advanced Industries Hub to support key strategic priorities of government and industry development strategies for the battery and critical minerals, renewable hydrogen, defence, LNG and other advanced manufacturing industries. The hub will enable the state to not only capture the global opportunities that are currently on offer, but cement WA in the global supply chains of the world's emerging industries.
- » Leverage the \$50 million Industrial Lands Fund to develop project-ready land to meet industry needs and unlock future supply chain development.
- » Facilitate transformational infrastructure upgrades at the AMC to shape the development of the precinct as a world-class, globally competitive hub for manufacturing, fabrication, assembly, maintenance and technology development, servicing the defence, marine, oil and gas, and resource industries.

Support the infrastructure needs of new and emerging industries.

- » Finalise the State Infrastructure Strategy to understand the state's infrastructure needs and priorities over the next 20 years and identify solutions to improve the state's infrastructure system.
- » Implement the 10 Year Industrial Lands Strategy.
- » Support the development of Westport to meet WA's long-term freight needs.

Innovation

The WA Government will facilitate innovation to improve supply chain productivity, efficiency and competitiveness.

Innovation is key to WA businesses capturing new supply chain activities, through improving processes, developing new products, forming start-ups and accessing new markets. The WA Government has an important role to play in enabling innovation through reducing risks and costs for local innovators, and supporting commercialisation.

Innovation in one segment of a given supply chain can benefit the competitiveness of the whole supply chain and transfer to other supply chains. Innovation can help overcome key challenges faced by industry in WA, such as labour costs, skills and infrastructure constraints, and remoteness.

WA is a world leader in innovation and technologies applied in the resources sector, including artificial intelligence, robotics, remote operations and micro-grid management. These innovations and technologies can often transfer to other industries like farming and precision health.

A healthy innovation 'ecosystem' means that supply chain end-users and contractors have access to businesses and individuals that have proven innovation capability and are able to respond to challenges and new market opportunities.

The WA Government has developed a strong innovation ecosystem to build the capabilities of WA businesses to accelerate the development of new and emerging innovations in cybersecurity, health, medical technology and data science. This includes funding for the X-TEND WA grants program, Innovation Vouchers grants program, WA Innovator of the Year awards, WA AustCyber Innovation Hub, MTPConnect WA Life Sciences Innovation Hub and the WA Data Science Innovation Hub.

Key actions to support supply chain development 2021-22

Support and accelerate new and emerging businesses.

- » Leverage \$16.7 million from the Investment Attraction and New Industries Fund to further develop and accelerate innovation-based technologies, and their application to support new and emerging industries' growth and participation in regional and global value chains.
- » Continue to support innovation hubs, including the WA AustCyber Innovation Hub, MTPConnect WA Life Sciences Innovation Hub and the WA Data Science Innovation Hub to accelerate innovation and capability development for startups and SMEs.

Growing cybersecurity capability is critical to support WA businesses as they transition to more digital technologies, processes and operations. Cybersecurity capability will increase the security of SME operations, particularly as businesses adopt more remote operations.

- » Support the establishment of an industry representative body for cybersecurity to facilitate collaboration within industry and with government to increase WA's cybersecurity capability.
- » Support the expansion of the Cyber Check Me initiative to support local SMEs participating in supply chains become more aware of and safeguard against cyber-attacks.



Digital connectivity

The WA Government will accelerate the state's digital transformation to support a more secure, sustainable and inclusive digital future.

The growth of supply chain activities in WA, especially those that are transitioning rapidly to robotics and automation, requires competitive digital connectivity.

There remain significant gaps in access to, and the quantity and quality of, telecommunications services provided to businesses and individuals across WA, which can impede the development of supply chain activities in the regions.

Improvements in digital infrastructure and information and communication technology (ICT) capabilities are critical to enable industries such as mining, renewable energy, defence and agriculture to develop and deploy more technologies, particularly in the regions.

Recent internet speed global rankings have consistently shown that Australia lags significantly behind other developed nations. The WA Government has made it a priority to improve digital connectivity in WA through a number of initiatives to increase digital inclusiveness and 'fill in

Key actions to support supply chain development 2021-22

- » Support digital transformation to improve the productivity, efficiency and competitiveness of the state's supply chain activities.
- » Invest in regional digital infrastructure and ICT capabilities to improve digital connectivity and support the development of supply chain activities for agricultural and pastoral businesses and communities across regional WA.
- » Invest in Austmine's WA METS Digital Mining Export Hub to build export capacity, knowledge and opportunities between regional, remote and metropolitan SMEs.
- » Commit to upgrade ICT systems across government to ensure that service delivery keeps pace with public expectations.

the gaps' where the National Broadband Network has not provided fit-for-purpose services. These initiatives aim to bridge the 'digital divide' by providing:

- » regional areas with digital services as good as their metropolitan counterparts
- » support for Western Australians to confidently and safely utilise digital technology.



Science and technology

The WA Government will support science and technology development to improve supply chain productivity, efficiency and competitiveness.

The WA Government recognises that many existing and emerging industries rely heavily on science to thrive. The Government recognises the important role research plays in generating new technology and knowledge that not only allows the state's existing sectors to be more productive, efficient and competitive, but also feeds the innovation pipeline with new products and services.

The growth of science and technology, including autonomous, robotics and remote operations, is critical to support supply chain activities through new product development and improvements in processes and productivity. These enablers can benefit the competitiveness of the whole supply chain and can be transferred between sectors to achieve sector-wide benefits.

Leveraging WA's strong innovative and technological capabilities, the WA Government will work with industry to supporting the acceleration towards digitisation and

Key actions to support supply chain development 2021-22

Leverage the state's existing expertise in remote operations in the resources sector, including opportunities to deploy more technologies, to improve the productivity and competitiveness of supply chain activities in primary industries, defence, space and energy.

- » Continue to fund a supply chain SME capability building pilot program through National Energy Resources Australia to connect LNG companies and first tier contractors to SMEs with innovative solutions, including in automation, robotics and remote processes.
- » Establish the Automation and Robotics Precinct at Neerabup to enable testing, research, development and training in autonomous, remote operations and robotic systems and equipment.

automation, robotics and remote operations. This will be achieved through leveraging WA's innovative and technological expertise in the resources sector and identifying opportunities for application in other sectors, such as defence, space, health and agriculture.

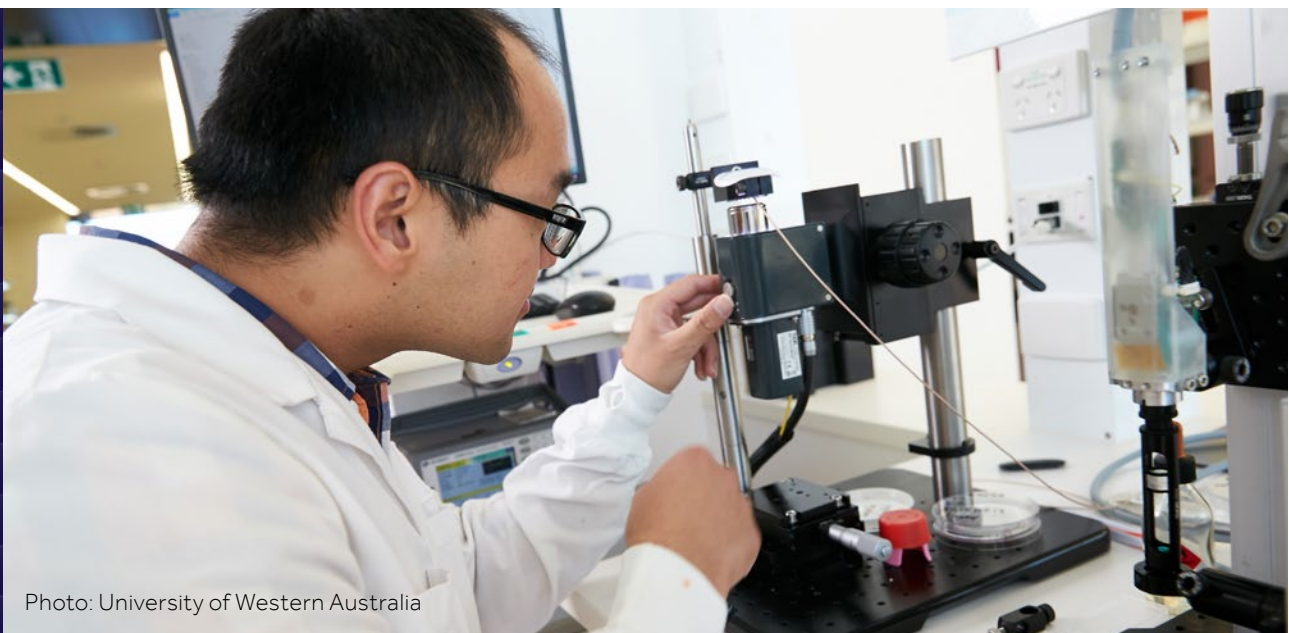


Photo: University of Western Australia

Targeted supply chain opportunities





As part of this Plan, the WA Government will build on the state’s comparative advantages to pursue targeted opportunities to grow WA industry involvement in global supply chains. These opportunities have been identified in accordance with their:

- » alignment to global trends and demands
- » ability to leverage the state’s comparative advantages
- » potential economic benefits
- » implementation feasibility.

Targeted supply chain opportunities are either cross-sector, meaning they can service several

supply chains at once, or industry-specific, meaning they service a single supply chain. These opportunities can drive increased local content by replacing imports, adding value to WA products or developing a new activity for an emerging supply chain. As a package, the opportunities identified in this Plan complement each other and support a coherent value proposition for investing in WA.

Corresponding with these identified opportunities are a number of targeted actions which have been identified by industry and government to deliver the greatest impact for the state’s priority sectors.

Diversify WA sector		Supply chain opportunity
	Defence industries	Vessel fabrication, sustainment and maintenance
	Mining and METS	Critical minerals mining, processing and manufacturing
		Mining fabrication and equipment
	Energy	Large-scale renewable projects
		Renewable hydrogen production
		Downstream processing of gas (petrochemicals)
	Primary industries	Agribusiness and food processing development
		Competitive and resilient agrifood logistics services
	Health and medical life sciences	Development of health and medical technology, devices and products
	Space industries	Development of space technology

Defence industries

The WA Government will leverage the state's comparative advantages in the global defence value chain to grow the local defence industries.

Defence is a growing industry both nationally and globally. In 2020-21, the Australian Government committed \$45.6 billion to defence spending, which is equivalent to 2% of Australia's gross domestic product, as part of a broader \$575 billion investment in defence to 2030.

This includes an expected annual spend of over \$4 billion for the Naval Shipbuilding Enterprise, and an expected growth in local acquisition spending rising from \$2.6 billion to around \$10 billion over the decade. This increase in defence expenditure is mirrored internationally, with global military expenditure rising to nearly \$2 trillion dollars in 2020-21.

WA has strong, advanced manufacturing capabilities, a skilled workforce and the necessary infrastructure requirements to leverage these emerging defence industry opportunities and grow the state's role in the defence value chain. The WA Government will support this by targeting defence investment to enhance industry capability and competitiveness and encourage

Supply chain opportunity

Support the development of local supply chain capability for the fabrication and maintenance of marine vessels.

Key actions 2021-22:

- » Continue to invest in fabrication, sustainment and maintenance infrastructure development at the AMC to increase the capability of WA businesses to deliver vessel fabrication and maintenance contracts.
- » Attract large defence prime contractors to WA to increase opportunities for local businesses in the defence supply chain.
- » Develop a defence capability promotion plan to improve the visibility of the state's defence capability to national and international markets, increasing opportunities to secure global defence contracts.

participation of local companies in defence supply chains. This will be achieved by leveraging existing government investment into the state's defence infrastructure and local capability, including continued development and expansion of the AMC.



Mining and METS

The WA Government will expand and establish new processing and manufacturing operations to increase its participation in global mining and METS supply chains and unlock further value-adding activities.

WA is a global mining and METS leader, and our diverse mining sector is a key contributor to the state's economy. In addition to reliable supply, WA has strong comparative advantages that include advanced technical mining expertise, a world-class services sector, an enabling and robust legislative framework and close proximity to key Asian markets. The state's highly skilled workforce and entrepreneurial mining sector are also significant strengths and have seen local companies successfully develop resource projects all over the world.

The WA Government is committed to leveraging these strengths to unlock further value-adding activities that meet local and global market demand. While international demand is increasing for traditional mineral applications, there is also renewed interest in the development of commodities that meet the requirements of future renewable energy technologies, including critical minerals. There is increased interest from mining companies to identify local suppliers of METS equipment to mitigate the risk of global supply chain disruptions and ensure business continuity.



Supply chain opportunity

Provide fabrication and maintenance services for iron ore rail cars, improving the security of the iron ore industry's logistical supply chain and creating local manufacturing jobs.

Key actions 2021-22:

- » Establishing a Local Manufacturing Investment Fund to support WA manufacturers to invest in capital and undertake research and development on innovative manufacturing techniques to increase their capability to manufacture iron ore rail car parts.

Supply chain opportunity

Grow downstream value-adding activities for critical minerals, including processing and manufacturing downstream products.

Key actions 2021-22:

- » Explore the implementation of a certification process for critical minerals products to demonstrate the quality and sustainability of WA's battery and critical minerals mining and processing operations.
- » Attract investment in pre-cursor/ cathode active materials manufacturing to support WA to move up the global battery value chain.
- » Identify future skills needs in the battery and critical minerals industries and implement training packages to address skills gaps.
- » Support local manufacturers to provide mining fabrication, equipment and maintenance services.

Energy

The WA Government will unlock opportunities in renewable and low carbon energy production to position the state as a major global energy player.

The global transition to decarbonisation has heightened the importance of low carbon energy sources and renewables. This has presented significant opportunities for WA, which is well placed to become a global clean energy producer and export leader given the state's abundant resources, track record in building large-scale energy industries, and excellent infrastructure and technical prowess in commodity development. The WA Government is committed to unlocking these opportunities through investment in emerging energy sectors, such as large-scale renewables and hydrogen, which can position WA as a major global player in new energies and contribute to the state's diversification agenda.

Global demand for petrochemicals is also expected to grow strongly over the coming years as consumption of plastics and fertilisers increases in rapidly growing developing

Supply chain opportunity

Invest in large-scale renewable projects, including windfarms and solar energy.

Key actions 2021-22:

- » Identify appropriate industrial land for use as a manufacturing hub for wind turbine blades and invest \$10 million to support the development of a wind turbine manufacturing industry .
- » Fund and deliver 900 stand-alone power systems over 5 years to increase the reliability of power supply, particularly in the regions.

economies. Demand for hydrogen from gas, which is currently sold as ammonia, is also expected to increase strongly and offers a market opportunity for petrochemicals companies. WA has an opportunity to attract more investment into the state by leveraging the relative abundance and affordability of natural gas in WA, the state's industrial capabilities, and new interests from LNG companies faced with uncertain prospects in international markets.





Supply chain opportunity

Target the growth of downstream activities in the natural gas value chain, particularly the production of petrochemicals and hydrogen from gas.

Key actions 2021-22:

- » Undertake a downstream industries critical infrastructure review to provide an understanding of where infrastructure investment is required to facilitate new downstream gas processing projects.
- » Develop and publish an annual Domestic Gas Commitment Statement to assist proponents to assess the domestic gas market and secure gas supply for their operations.

Supply chain opportunity

Drive the development of WA's renewable hydrogen industry and position the state to be a major producer and exporter of renewable hydrogen.

Key actions 2021-22:

- » Model the renewable hydrogen value chain to identify bottlenecks and opportunities for capability development.
- » Undertake 3D modelling of geological storage for renewable hydrogen to increase understanding of the state's storage potential.
- » Review relevant existing legislation, regulations and standards affecting the hydrogen industry and develop a regulatory framework that will enable growth of the renewable hydrogen industry.
- » Prepare a business case for the development of a Mid-West Hydrogen Hub in the Oakajee SIA.

Health and medical life sciences

The WA Government will grow the health and medical life sciences sector to provide both an opportunity for investment and export revenue, and additional capacity to meet local health and medical needs.

The evolving COVID-19 pandemic is forcing many countries to re-evaluate the make-up and operational effectiveness of their health and medical life sciences ecosystem. The pandemic has increased consumers' involvement in health care decision-making, forced the rapid adoption of digital health innovations, increased reliance on data and data analytics, and served as a catalyst for unprecedented public-private collaborations to ensure availability of personal protective equipment, vaccines and therapeutic strategies. Amid these dynamics, governments and health care providers around the globe are being challenged to quickly pivot, adapt and innovate.

As a result, there is increasing global demand for new health and medical technology, pharmaceuticals, devices and other medical products and services that provide practical, digital solutions to meet our expanding and often complex health needs. WA can leverage strong local research and development capability to penetrate this rapidly growing

Supply chain opportunity

Target growth of industries in the health and medical life sciences sector, particularly the development and commercialisation of innovative medical products and services and opportunities for local manufacture.

Key actions 2021-22:

- » Launch a Health and Medical Life Sciences Industry Strategy to provide a coordinated and collaborative approach to develop the health and medical technology sector.
- » Raise the profile of WA health and medical life sciences companies to improve visibility of the state's capability to national and international markets, and attract investment.
- » Review local health and medical supply chain risks and develop risk mitigation strategies to ensure sovereign capability is maintained.

global market. Coupled with local expertise in delivering health services in remote areas, transferable artificial intelligence, automation and robotics technologies from the resources sector, and access to biodiversity hotspots, this capability is key to enabling the growth of competitive health and medical supply chain activities in WA.



Photo: Pure IV

Primary industries

The WA Government will increase the value and scale of primary production and agrifood processing to respond to global demand for high quality produce.

WA holds strong competitive advantages in primary industries that have enabled agribusiness to become a significant driver of the WA economy. The state's climate conditions and capacity to produce superior products has supported agriculture to become the second largest tradable sector, and a large regional employer. WA exports approximately 80% of the food it produces and imports 80% of the processed food products it consumes.

The primary industries sector has responded well to the COVID-19 pandemic, and it is anticipated that demand for premium quality, safe, certified agricultural produce, processed food and beverages will increase significantly over the next decade. This anticipated demand offers opportunities for WA to grow its capacity to produce premium value-added produce across the agriculture, aquaculture and food processing sectors, as well as improve logistics capability and reliability across the agrifood supply chain. This will respond to both domestic and export-oriented demands, particularly from Asia, and increase the competitiveness of WA food exports.



Supply chain opportunity

Target agribusiness development opportunities to increase the value and scale of primary production.

Key actions 2021-22:

- » Continue to implement the Food and Beverage Fund to support the growth of metropolitan and regional food processing operations and further value-adding.
- » Leverage existing project facilitation services to attract and support large-scale food and beverage processing companies to locate to WA.
- » Develop and implement the agribusiness investment attraction strategy to attract large-scale food and beverage processing companies to invest and establish operations in WA.

Supply chain opportunity

Improve the competitiveness and resilience of agrifood logistics services.

Key actions 2021-22:

- » Support development of submissions for Australian Government funding into agricultural freight infrastructure to increase the efficiency and timeliness of agricultural supply to export markets, and the competitiveness of WA's agricultural exports.
- » Build capacity of perishable food and beverage exporters to use suitable sea and air freight solutions and associated technologies and management to enable continued international competitiveness.
- » Undertake a study into COVID-19 agrifood supply chain disruptions to inform future government investment to improve logistics supply chains.

Space industries

The WA Government will leverage the state's geographic advantages, capabilities and competitive advantages to grow the local space industry and access new global supply chain opportunities.

WA has significant geographic, technical, research and infrastructure advantages and capabilities to attract investment and grow a world-leading, thriving space industry.

WA's southern hemisphere location, longitude, dry environmental conditions, radio quiet zones and clear skies has provided ideal conditions for major space projects since the late 1950s. Today, WA is involved in a range of space operations and hosts significant space infrastructure for both civil and defence applications.

Significant areas of activity and capability in WA include ground-based satellite and deep space communications, space situational awareness, space data processing and analysis, autonomous systems, robotics and world-leading remote operations capabilities. Additionally, WA has emerging capabilities in optical laser communications and small satellite design, manufacturing and operation.

Support in building capability for the sector will help showcase to the world WA's best ideas and

Supply chain opportunity

Space and remote operation services and manufacture of space products and components, such as small satellites, sensors, ground stations, robotics and automation systems.

Key actions 2021-22:

- » Develop a WA Space Industry Strategy to build capability and promote WA's geographic and competitive advantages to attract investment and grow supply chain opportunities.
- » Continue to support Australian Remote Operations for Space and Earth consortium, Space Automation, Artificial Intelligence and Robotics Control Complex, Australian Space Data Analysis Facility and Curtin University's Binar Space Program.

technologies that can support future space endeavours. In turn, this unlocks opportunities for WA businesses to enter national and international supply chains.

Supporting the development of space technology will not only strengthen WA and Australia's role in the global space sector, it will also support existing and emerging priority sectors through innovation and technology spill-over.



Implementation and reporting

Diversify WA's reporting framework will be the overarching reporting and evaluation mechanism for the actions identified in this Plan. To support this, a supply chain lens and narrative has been added to the reporting of key sector activities under Diversify WA. All actions identified in the Plan will be incorporated into existing reporting instruments outlined in relevant WA Government industry strategies, such as the Future Battery and Critical Minerals Industries Strategy and the Defence and Defence Industries Strategic Plan.

The Diversify WA reporting process is undertaken once a year and includes both quantitative 'measures' (or indicators) and qualitative analysis of sector development. These 2 reporting streams complement each other to provide a comprehensive analysis of how the economy and key export sectors are progressing toward the Diversify WA outcomes, and how the WA Government's actions/measures are performing against the intended outcomes. In line with this Plan, the Diversify WA reporting framework will include indicators related to supply chain actions and a review of opportunities on an annual basis.

This information will be drawn from general economic data and intelligence gathered directly from industry and provided by the relevant agencies responsible for the development of a given industry or the implementation of an industry development strategy. This reporting approach will foster more targeted and coordinated supply chain development efforts across the public sector and between government and industry to ensure:

- » Ministers have a clear line of sight over how government and industry are delivering supply chain development outcomes
- » accountability within government for implementing actions identified in this Plan
- » local content and investment performance in targeted supply chain activities can be assessed as a whole and not just at the individual initiative level – highlighting where government effort is having maximum impact and where gaps may exist that need to be addressed
- » a shared information set is available to assist both agencies and government to assess how well supply chain activities are working.



Invest and Trade Western Australia

To support the state's economic diversification agenda, the Western Australian Government has established Invest and Trade Western Australia to promote the state's unique strengths and diverse industries and provide a one-stop shop for incoming trade and investment enquiries.

Through a network of local and international offices, Invest and Trade Western Australia helps investors to navigate the state's investment and trade ecosystem and assists local businesses to access foreign markets.

The Western Australian Government operates 8 international investment and trade offices across 5 regions:

- » ASEAN (Jakarta and Singapore)
- » China (Shanghai)
- » India-Gulf (Mumbai and Dubai)
- » North East Asia (Tokyo and Seoul)
- » United Kingdom/Europe (London).

Further information on Invest and Trade Western Australia can be found at www.investandtrade.wa.gov.au



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