



Department of
**Jobs, Tourism, Science
and Innovation**

Submission to the Inquiry into intergenerational challenges and opportunities for the Western Australian economy

September 2021



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1. Introduction

The Department of Jobs, Tourism, Science and Innovation welcomes the Economics and Industry Standing Committee's 'Inquiry into intergenerational challenges and opportunities for the Western Australian economy'.

Over the past 18 months, the focus of economic policy makers, not only in Western Australia but the rest of the country and the world, has been on managing the ongoing disruption to the economy from the COVID-19 pandemic. While this has necessarily been a priority, there has also been a recognition that the actions taken to manage the COVID-19 pandemic, and the pandemic itself, will have longer term implications for the economy and for society. Further, there are other global trends that have been present for many years that will continue to affect Western Australia's (WA) economy and new trends will emerge over the next 20 years.

WA's economy is currently in a position of strength. To date, the WA Government has managed the COVID-19 pandemic in a way that has minimised economic disruption and demand for the state's export commodities has been strong. Economic support measures from both the Australian and WA Governments have assisted a recovery in employment, with the state's unemployment rate in July 2021 being the lowest since December 2013.

WA's recent economic performance has in large part been due to the state's mining industry; in particular its iron ore exports to China. The main challenge for the economy over the next 20 years is to diversify the sources of growth to other sectors and ensure the economy can generate high-quality jobs. This is also an opportunity for WA to demonstrate the breadth of its industry capabilities and the applicability of this to sectors beyond mining.

The Department of Jobs, Tourism, Science and Innovation has a key role in achieving economic development outcomes for the state. The department is the lead agency for economic development, international trade and investment, and tourism. The department also leads the promotion and development of the defence, international education, science and innovation sectors in WA. Across the department, work is being done to encourage growth within existing and new industries, stimulate innovation, attract investment, grow trade and promote the development of infrastructure. The department also works to ensure that WA's economic growth leads to opportunities for local businesses and workers and that opportunities are available across the state's regions and demographic groups.

This submission is structured to align with the Inquiry's terms of reference. Section 2 provides information on the current structure of the WA economy and Section 3 outlines key factors driving current and future demand for WA exports. Section 4 notes actions the department is involved in to prepare for changing demand in WA's exports and section 5 outlines key factors affecting inbound investment into WA.



2. The current structure of the WA economy

The structure of the WA economy has been influenced over time by the physical and geographical attributes of the state; in particular, the state's large land mass and coastline, the mineral and petroleum resources located within or close to the state, and the distance between the state's major population centres and other Australian and overseas cities. In recent decades, WA's economic structure has been affected by economic policies such as trade liberalisation that have encouraged a movement in activity towards industries in which the state has a comparative advantage. This has been exacerbated by growth in a number of Asian economies, which has led to an increase in demand for the state's export commodities as well as an increase in supply of lower-cost manufactured goods (in some cases, substituted for domestic production).

The submission from the Department of Treasury provides detailed information and data on the current structure of the WA economy. In summary, the key aspects of WA's economic structure are:

- Mining is by far the largest industry in the WA economy, accounting for 40.2% of total production in the state, compared to 11.1% nationally.
- While mining accounts for a significant share of the state's total employment (8.4% in 2019-20 compared to 1.9% nationally), the capital-intensive nature of the mining industry means its share of employment is much lower than its share of production.
- On an expenditure basis, exports of goods and services account for a large share of the WA economy, 59.2% of WA's gross state product (GSP) in 2019-20 compared to 23.7% of Australia's gross domestic product (GDP). WA's exports are dominated by merchandise (goods) exports, which account for more than 95% of total exports while services exports account for less than 5% of total exports.
- WA's merchandise exports are very concentrated by both commodity and market. 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.

A further aspect of WA's economic structure is how economic output translates into economic outcomes for people and communities in the state. While GSP is a generally accepted measure of the size of an economy, it does not necessarily provide a good indication of people's real-life economic experiences. Table 1 compares GSP per capita with gross household disposable income (GDHI) per capita for each of the states and territories for 2019-20.



Table 1: Comparison of GSP per capita and GHD per capita

	GSP per capita, 2019-20 (\$)	Gross household disposable income per capita, 2019-20 (\$)	Ratio of GHD per capita to GSP per capita, 2019-20
New South Wales	77,413	53,435	0.69
Victoria	70,346	48,107	0.68
Queensland	70,365	48,164	0.68
South Australia	62,887	46,695	0.74
Tasmania	61,272	48,855	0.80
Australian Capital Territory	97,066	92,810	0.96
Northern Territory	106,040	67,704	0.64
Australia	77,807	51,394	0.66
Western Australia	119,861	55,101	0.46

Source: JTSI estimates based on ABS, Australian National Accounts – State Accounts.

Notes: GSP and GHD per capita presented in nominal terms. Household income includes wages and salaries, salary sacrifice, non-cash benefits, bonuses, termination payments, government pensions and allowances, profit/loss from own unincorporated business, net investment income and private transfers less income tax, the Medicare levy and the Medicare levy surcharge.

Table 1 shows that while WA's GSP per capita is the highest of any Australian state or territory and 54% higher than the average for Australia, WA's GHD per capita is only 7% higher than the average for Australia. Further, the ratio of GHD per capita to GSP per capita is by far the lowest of any Australian state or territory. There are a number of factors that drive this outcome with one of the main ones being the mining industry's high share of WA's GSP combined with its level of foreign ownership, which means that a relatively higher proportion of the income from WA's economic output flows outside of the state.

3. Key factors driving current and future demand for WA exports

This section covers current and future demand for WA's exports by sector: mining, energy, agriculture, tourism and international education.

3.1. Mining

Current demand

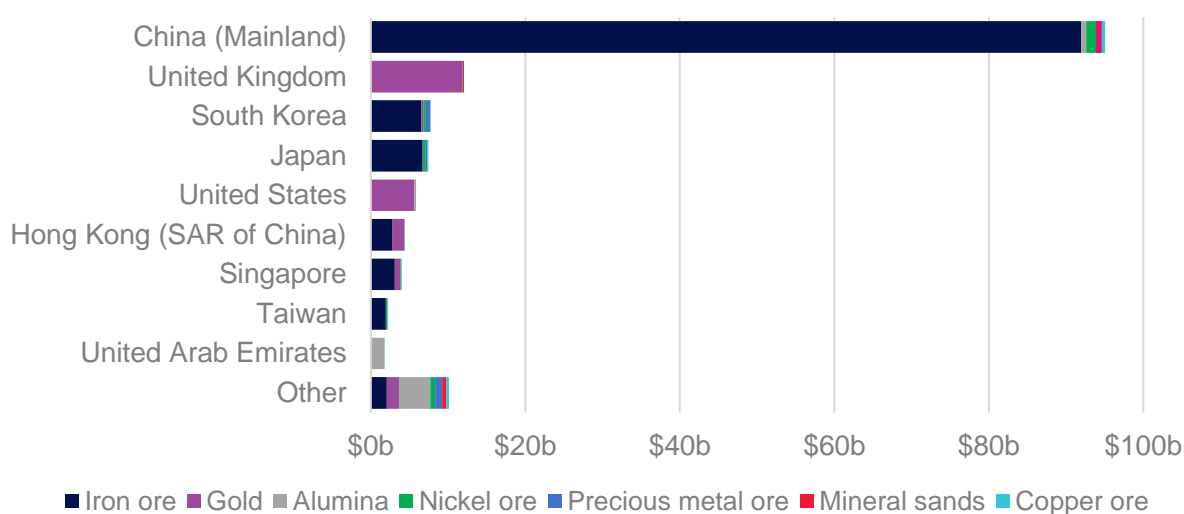
WA's exports are dominated by iron ore and other minerals. Demand for these exports has been driven by the economic and industrial development of Asian economies, beginning with Japan, South Korea and Taiwan from the 1960s, followed by China in the mid-2000s. The rapidly developing economies of South East Asia and Southern Asia are now increasingly contributing to this demand.

While WA exports a range of different mineral commodities to a range of markets, Figure 1 highlights the importance of the Chinese market for WA's iron ore, which accounted for over 60% of total mining exports in 2020. China is also WA's largest market for nickel ore, mineral sands and copper ore exports. South Korea and Japan remain significant markets for iron



ore, and iron ore accounts for a large share of the state's mining exports to these two markets. Gold exports to the United Kingdom and United States have grown rapidly in recent years due to heightened global economic uncertainty and gold's use as a safe haven for investors, although there was some drop off in demand in late-2020 and 2021. The United Arab Emirates is the largest market for the state's alumina exports, accounting for over a quarter of total alumina exports from the state.

Figure 1: WA's major mining export markets by product, 2020



Source: Department of Mines, Industry Regulation and Safety and ABS

Note: Exports in nominal terms, original series.

Demand for WA's mining exports has been strong over the past year, supported by global economic stimulus spending on infrastructure in response to the COVID-19 pandemic and constraints from other suppliers.

China's fiscal stimulus package of US\$500 billion (May 2020) to support its recovery included US\$140 billion for public infrastructure investment. Construction expenditure in China rose by an average of 7% a quarter over the June, September and December quarters of 2020 and by 29% in the March quarter 2021 (year-on-year changes). As a result, crude steel production in China was 12% higher between January and June 2021 compared to the same period in 2020. However, steel production is likely to ease in China as the Chinese Government imposes cuts to production to reduce carbon emissions.

The demand for WA's iron ore has been elevated in recent years because of lower supply from Brazil, the world's second largest producer. Brazil's iron ore exports were down by almost 50 million tonnes (to 341 million tonnes) in 2020 from its 2018 peak. However, Brazilian iron ore exports are recovering in 2021 and are growing to a target of 400 million tonnes a year by 2024.



Future demand

Iron ore demand from China will be the main factor influencing WA's mining exports over the next 20 years. China is likely to remain the largest market for WA's iron ore exports, although China's total demand for iron ore is expected to decline. Wood Mackenzie forecasts China's iron ore consumption will fall by around a quarter from its 2020 level (1.4 billion tonnes a year) by 2040, as China's economic growth becomes less driven by investment in buildings and infrastructure and it makes greater use of scrap steel.

The decline in China's demand for WA's iron ore may gather pace in the next few years, following the announcement of China's Iron Ore Sufficiency Policy, which includes a target of 45% iron ore self-sufficiency by 2025. This policy will be facilitated by China making public investments in new mines offshore in Russia, Myanmar, Kazakhstan and Mongolia.

More broadly, WA's mining exports are well positioned to benefit from the global transition to clean energy technologies. World Bank projections suggest production of minerals, such as graphite, lithium and cobalt could increase by nearly 500% between 2020 and 2035 to meet the growing demand for renewable energy.

Another important trend is the growing importance of ensuring ESG (environment, social and governance) standards in global mining trade. Governments, corporates, financiers and the broader community are increasingly keen to see the mining sector becoming greener by pursuing extraction in a more sustainable manner. This provides an opportunity for WA, as there will be greater customer confidence in industry regulation and compliance compared to other jurisdictions.

The United States, Japan and Europe are looking to invest in securing critical minerals supplies outside of China, for products such as lithium, nickel and rare earths. WA's exports of these minerals are likely to rise substantially in coming years from both Chinese and non-Chinese demand, for use in advanced technologies and electronics, defence machinery and equipment, electric vehicles and clean energy storage.

Until recently, WA's nickel production was mainly used for stainless steel, but is now mostly sold to global battery material suppliers. BHP is constructing a nickel sulphate plant at its Kwinana Nickel Refinery, which will produce nickel sulphate for lithium-ion batteries.

WA is the world's largest rare earths producer outside of China, with production mainly coming from Lynas' Mount Weld mine. Lynas is also constructing a rare earths processing plant at Kalgoorlie and there are other rare earths pilot plants and potential projects in the pipeline.

3.2. Energy

Current demand

WA's energy exports are currently driven by the demand for LNG and other petroleum products (crude oil, condensate and LPG) from Japan, China and other Asian markets as

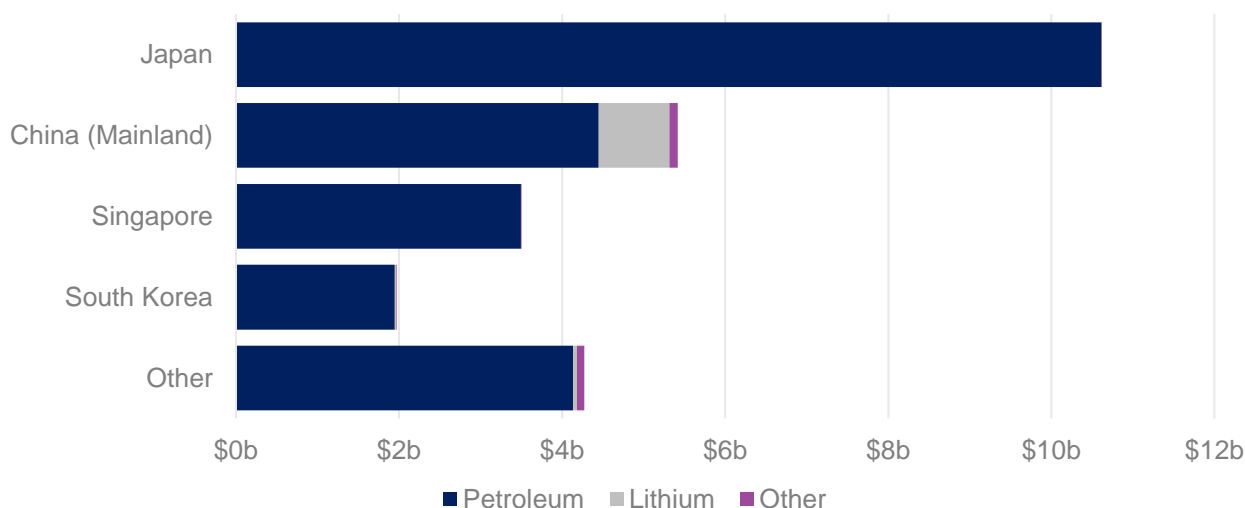


outlined in Figure 2. The value of the state's energy exports fell by an estimated 30% to \$25 billion in 2020-21, due to lower crude oil prices and subdued energy demand in recovering economies. LNG prices in Asia generally move with the oil price (with a 3-month lag) because most of Asia's long-term LNG supply contracts have prices linked to the oil price. The average LNG import price to Japan in 2020-21 was US\$7.8 per mmBtu, 22% lower than in 2019-20.

Japan and China together account for over 60% of WA's energy exports. While WA's LNG exports are mainly sent to Japan and China, the growth in spot supply of LNG has led to some cargoes being sent to emerging markets such as Singapore, India and Thailand over the past five years.

With the use of batteries in electric vehicles and energy storage growing worldwide, lithium accounts for a growing share of WA's energy exports. The Greenbushes lithium mine has expanded in recent years and other lithium mines have been developed to meet the growing demand from lithium-ion battery manufacturers and material suppliers. WA has three lithium hydroxide processing plants under construction. Tianqi Lithium's Kwinana plant and Albemarle's Kemerton plant are expected to start exporting lithium hydroxide in 2021 (full production in 2022), followed by Covalent Lithium's Mt Holland plant in 2024. The value of WA's current lithium spodumene exports will rise substantially given hydroxide prices are much higher than spodumene prices.

Figure 2: WA's major energy export markets by product: 2020



Source: Department of Mines, Industry Regulation and Safety and ABS

Future demand

In the past decade, LNG was seen as an alternative clean energy source to coal and oil. With demand growing and new supply from export projects in Australia, the United States and Russia, global LNG trade grew from around 245 million tonnes in 2015 to 355 million tonnes in 2019.



However, the future role of natural gas (including LNG) in the energy mix of countries pursuing decarbonisation has become more uncertain, and renewable energy sources are becoming more cost competitive. In the long-term, renewable energy is expected to account for a growing share of the global energy mix, but how much of growth in renewable energy will be at the expense of natural gas is uncertain. Different assumptions for how the energy transition will take place lead to large variations in forecasts for global LNG demand. WA's LNG export projects have much of their production capacity tied to long-term contracts, which provides a level of certainty, but these contracts are due to expire at various points in time within the next 20 years and LNG buyers are now seeking more flexible contracts with shorter durations and lower volumes. The future production profile for WA's LNG projects will depend on their ability to source gas reserves and offer supply competitively to the market. While LNG exports will still be a feature of WA's economy in 2041, they are likely to account for a lower share of the state's exports.

WA has other opportunities as the composition global energy demand changes. Japan and South Korea (two of the largest LNG importers) have signalled a shift towards lower emission alternatives, such as hydrogen. To be part of this transition in these and other markets, WA is implementing the WA Renewable Hydrogen Strategy, to ensure that by 2030, its market share in renewable hydrogen exports is similar to its share in LNG today. Given natural endowments of sunshine, wind and available land, as well as existing supply chain and customers, WA is well positioned to pursue hydrogen exports in the coming decades.

3.3. Agriculture

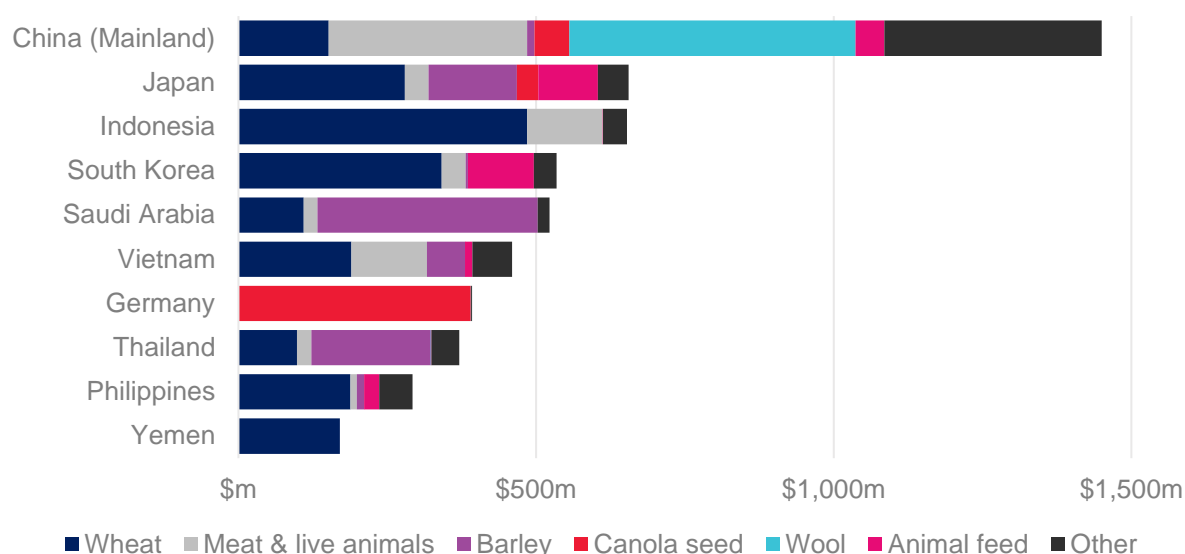
Current demand

WA's agriculture exports are driven by the growing demand for food and beverage products in Asia and supply-side factors such as weather (growing) conditions and production costs (flowing through to prices in a price sensitive market).

Figure 3 shows a breakdown of WA's agriculture exports and, when compared to Figure 1, indicates that the state's markets for agriculture exports are more diversified than its markets for mining exports. China accounted for 18% of the state's agriculture exports in 2020-21, and was a large market for a range of products, notably wool and meat and live animals. Other markets in Asia feature prominently, such as Japan (8%), Indonesia (8%), South Korea (7%), Vietnam (6%), Thailand (5%) and the Philippines (4%). WA also exports agriculture products to Europe and the Middle East. Germany is a major market for the state's canola seed, while Saudi Arabia has become a large market for the state's barley exports.



Figure 3: WA's top 10 agricultural exports by major product 2020-21



Source: ABS

WA's agriculture exports rose 3% to \$8 billion in 2020-21 (excluding confidential items), even though exports to China halved. The reduction in exports to China was mainly due to export restrictions imposed by the Chinese Government in 2020. China implemented an 80.5% joint anti-dumping and countervailing duty on Australian barley. WA has not exported barley to China since September 2020, but found new markets in Saudi Arabia, Kuwait and Mexico.

China has placed anti-dumping duties on wine of up to 218.4% and countervailing measures ranging from 6.3-6.4%. WA's alcoholic beverage exports to China fell 77% to \$5 million in 2020-21. China also introduced a live export ban in November 2020 that affected WA's exports of rock lobster: in 2020-21, WA's exports of crustaceans to China fell 65% to \$106 million. Australian media also reported trade bans on other products, including red meat and timber. In 2020-21, WA's beef exports to China fell 25% to \$67 million. However, cork and wood exports were seemingly unaffected, more than tripling to \$43 million.

China's annual import quota on Australian wool was raised by 5% from 36,000 tonnes in 2020 to 38,288 tonnes in 2021. WA's wool exports to China rose 15% to \$481 million in 2020-21.

Future demand

WA is well positioned as a high-quality provider of agricultural products in a rapidly growing region with an expanding market. WA holds competitive advantages with its climate, conditions and capacity to produce superior products with established food quality and safety systems. The regulatory environment ensures high standards in sustainable production, labour relations, animal welfare and biosecurity.

In East Asia, South Asia and the Middle East, WA producers face considerable demand for almost all of the state's agricultural produce. WA will compete for a greater share in



agricultural markets, with the increase in exports contingent on the state's cost competitiveness and investment in value-add products.

Capturing a larger share of final value-added produce would generate larger export revenues. Currently, only around 7% of the state's agricultural exports are in the form of processed foods or beverages, well below other advanced economies such as Switzerland (89%), United Kingdom (69%), Italy (67%), Japan (59%) and Germany (55%), all of which typically produce shelf-ready packaged products with a barcode. The dynamic growth in regional markets for quality processed food and beverages provides WA with an opportunity to expand its value-added agricultural exports.

3.4. Tourism

Current demand

The main factor affecting current demand for tourism in WA is the COVID-19 pandemic. The closing of international and interstate borders and restrictions on gatherings and requirements for social distancing have had a significant impact on the tourism industry over the past 18 months.

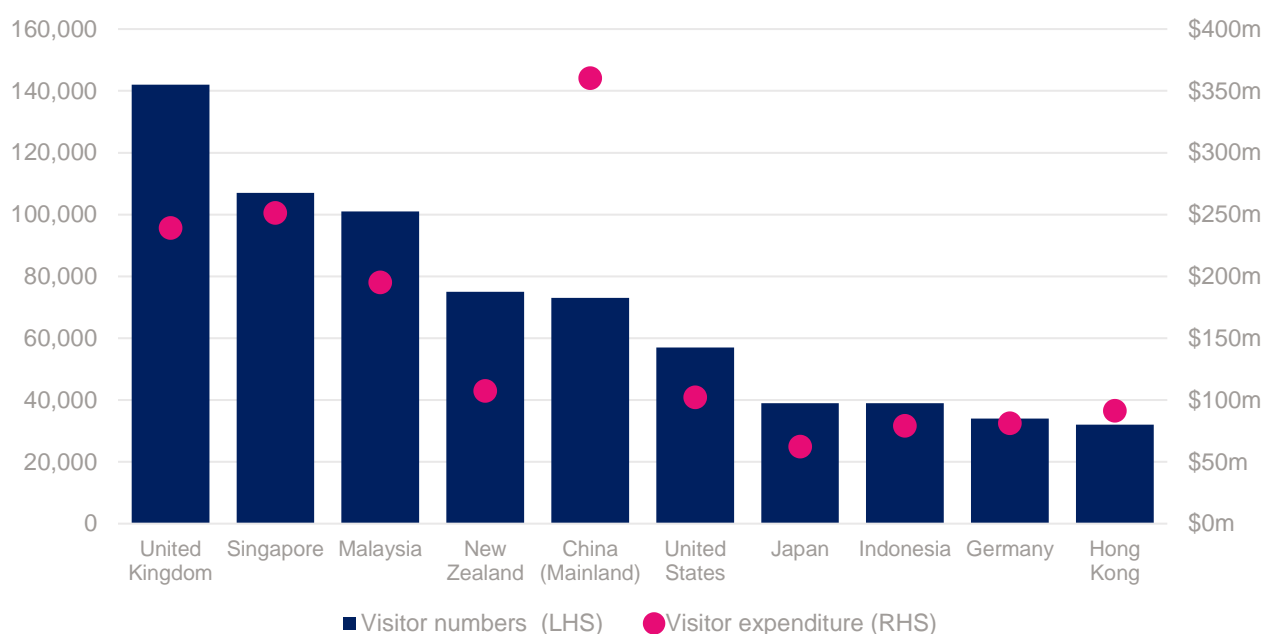
International visitor expenditure in WA fell from over \$2.1 billion in the year ending March 2020 to \$50 million in the year ending March 2021 – a fall of over 97%. Similar results were experienced Australia wide.

Interstate expenditure has also declined as the state's borders have closed to contain the spread of COVID-19. Interstate expenditure fell 84% from the year ending March 2020 to the year ending March 2021. In contrast, intrastate expenditure held up well as Western Australians holidayed within the state. Intrastate expenditure in the year ending March 2021 was 12.6% higher than in the year ending March 2020.

Figure 4 shows a breakdown of WA's international visitor numbers and expenditure in 2019 for the top 10 markets (the last full calendar or financial year before the COVID-19 disruption). Most international tourists to WA originated from the United Kingdom, Singapore, Malaysia, China and New Zealand. The proportion of visitors that each of these markets contribute to the total has remained relatively stable over the 10 years prior to the emergence of the COVID-19 pandemic. Figure 4 highlights the different expenditure patterns from international markets. China ranked fifth by number of visitors, but was the largest spending market, indicating high average spend per visitor. Visitors from Singapore and Germany also have higher average spend per visitor.



Figure 4: WA's international visitor numbers by market (top 20): 2019



Source: Tourism Research Australia

Note: 2019 data is presented given the major disruption to international tourism from early 2020.

The tourism sector is likely to struggle to reach pre-pandemic levels of expenditure and visitor numbers until well after international and state borders are re-opened. The timeframe for this is unclear at this stage.

Future demand

The recovery of the tourism sector after the re-opening of borders will be contingent on WA's appeal as a holiday destination. There a number of factors that will influence this appeal:

- The lasting effects of the COVID-19 pandemic, such as how WA is perceived in terms of management of the virus, ease of entry and exit to the state, quarantine requirements and safety of tourists.
- Marketing of WA to the world including working with partners such as airlines, travel wholesalers, retail and online travel agents, on domestic and international marketing campaigns to encourage more visitors; and securing aviation routes to make it easier for people to travel to, and around the state.
- Developing, attracting and promoting major sporting, arts, cultural and business events, including bids for major international events to help support WA's major infrastructure.
- Improving access, accommodation and tourism experiences, including Aboriginal tourism, cruise tourism, addressing tourism and hospitality workforce requirements, and helping private investors in tourism navigate government approval processes.
- Cost-competitiveness of WA (and Australia) as a holiday destination, given travel to Australia by international tourists can be time intensive, so tourists will be looking to



ensure their time spent travelling represents value for money and is on par (or better) than competing destinations.

- Attracting and retaining international students, as it is estimated that each international student attracts on average 1.5 visiting friends and relatives from overseas and these visitors spend more than seven times per trip compared to international holiday makers.

3.5. International education

Current demand

Similar to tourism, the key factor affecting the international education sector is the COVID-19 pandemic and closed international borders. However, due to semester timings, many international students arrived in the state before COVID-19 travel restrictions were imposed and some international students enrolled in courses but remained overseas either studying online or having deferred their studies.

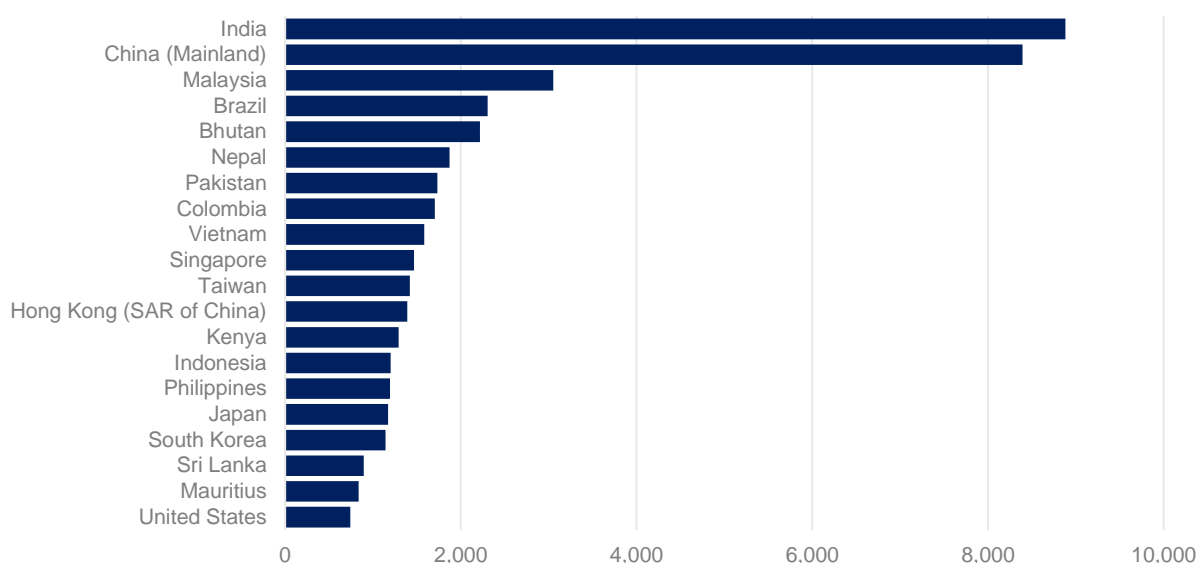
WA had around 32,800 international student enrolments between January and June 2021, around 17% lower than the same period in 2020. However, the decline in international students is likely to deepen as existing students complete their studies and new students are unable to travel to the state.

Ongoing Australian Government travel restrictions have stopped the arrival of new international students to WA and prevented existing international students from returning to WA to study. International education providers that have been hardest hit by COVID-19 are those delivering English Language Intensive Courses for Overseas Students (ELICOS). Enrolments in ELICOS in WA fell 29% in 2020.

WA's main international education markets are in Asia. Within Asian markets, trends in enrolments vary considerably as depicted in Figure 5. Enrolments from India (the largest individual market) and South Asia (Bhutan, Nepal, Pakistan and Sri Lanka) are trending upwards. In contrast, enrolments from Greater China (including Mainland China, Hong Kong and Taiwan) and North East Asia (South Korea and Japan) are trending down.



Figure 5: WA's international education student enrolments by market (top 20): 2019



Source: Department of Education and Training (PRISMS database)

Note: 2019 data is presented given the major disruption to international education from early 2020.

Southeast Asia, particularly Malaysia and Singapore, has traditionally been a strong international education market for WA, with the Philippines now the strongest growing individual market in the region. International student enrolments from all other markets have been trending down over the past five years. The fall has been evident in many European markets.

Future demand

The attractiveness of WA as an international education destination will be contingent upon the lasting effects of the COVID-19 pandemic after Australian border restrictions ease. How WA is perceived will be important, in terms of management of the virus, ease of entry and exit to the state, quarantine requirements and safety of students and ability for their families to visit.

Border restrictions of key markets will be another factor affecting international education. Countries will have different timeframes for when they allow their citizens to resume travel and study overseas with the security of being able to return home.

Other factors centre on WA's overall product offering. This includes the calibre and international competitiveness of WA's educational institutions compared to other destinations such as the United Kingdom and the United States and the ability for students to find work, both during their studies based on visa requirements and after they complete their studies. This takes into account both visa restrictions and attitudes of businesses to hire international students into their workforce.



4. Actions being undertaken to plan for identified trends in demand for WA exports

The previous section outlined a range of current and future challenges and opportunities for WA's export sectors. There are many uncertainties in the 20-year timeframe, however it is unlikely that the boost to WA's economy that came from mining exports over the past 20 years will be repeated over the next 20 years. For the WA economy to achieve comparable levels of growth over the next 20 years, it will require broader sources of growth, both across sectors and within the mining sector itself.

This section outlines the key activities the department is leading to achieve broader-based economic growth and to ensure that people across the state realise the benefits of that growth. These activities are organised into the following themes:

- Implementation of Diversify WA
- Activities to encourage growth in individual sectors of the economy
- Activities to facilitate growth across multiple sectors of the economy
- Investment attraction and trade promotion across markets
- Capability building

Across these themes, collaboration with industry, the community and other government agencies is essential for the department to be effective. For example, new and emerging industries in WA will require workers with the requisite skills to be internationally competitive. To achieve this, the department works with industry to understand their workforce needs and government agencies such as the Department of Training and Workforce Development to ensure workers with the right skills are available.

4.1. Diversify WA

The WA Government released Diversify WA in July 2019 as the state's economic development framework. Diversify WA outlines how government, industry and the community should work together to grow and diversify the WA economy, create jobs and secure the state's future.

The vision of Diversify WA is to create 'a strong and diversified economy delivering secure, quality jobs through increased investment across a broad range of industries'. To achieve this vision, Diversify WA focuses on sectors for strategic development that match WA's strengths with global trends.

The release of Diversify WA was almost immediately followed by the onset of the COVID-19 pandemic. Due to the significance of the economic impacts, the WA Government's focus was to stabilise economic conditions and assist businesses to survive so that immediate job



losses could be minimised and the economy could be returned to a growth trajectory as soon as possible. To this end, the state's economic development agencies have focused on tracking the impact of the pandemic on the WA economy and its industries. This intelligence was used to inform a series of impact statements which fed into the WA Government's economic response to the pandemic.

In July 2020, the WA Government launched the WA Recovery Plan, with the vision to get WA back on the road to becoming a thriving and innovative community to live, work, visit and do business. The WA Recovery Plan included stimulus and support measures across most sectors, together with new projects and funding to accelerate some existing projects – including many of the initiatives identified in the Diversify WA framework.

The aims of the WA Recovery Plan have largely been achieved through stabilisation of economic conditions, the recovery of business and consumer confidence and employment levels that have exceeded those reached pre-pandemic. However, this recovery has been greatly assisted by the large increase in the value of the state's iron ore exports to China; which has increased the mining industry's share of the economy to an even higher level.

Due to this changing landscape and the relative stability of WA's economy (while not dismissing the ongoing risks associated with the COVID-19 pandemic), there is a renewed focus on progressing the Diversify WA vision and reporting on the state's diversification progress under the Diversify WA framework.

The department is responsible for the implementation of Diversify WA and has developed a reporting framework to measure the state's progress towards the desired outcomes.

4.2. Sector-based activities

The department is the lead agency for a number of the sectors identified in Diversify WA. The department also works in collaboration with other government agencies for the remaining Diversify WA sectors; for example, the department works with the Department of Primary Industries and Regional Development to assist with realising market opportunities for agricultural exports.

Key sector-based activities the department is currently progressing are outlined below.

Resources

While the mining industry's large share of the WA economy could be seen as the reason for the long-term challenge to economic diversification, the mining industry is important to the productive diversification of the economy. WA's comparative advantage in mining and the opportunities it provides for the development of skills and technology means the industry will remain an integral part of the economy and other sectors can leverage opportunities from the mining industry.

The department supports a range of large and complex projects across the state on an ongoing basis. The major projects the department provides project facilitation support to are



mainly in the mining and oil and gas sectors, but also include major infrastructure and renewable energy projects.

The department administers a number of State Agreements, most of which relate to major projects in the resources sector. A State Agreement is a legal agreement between the WA Government and a proponent of a major project within the boundaries of WA and details the rights, obligations, terms and conditions for the development of the specific project.

The department is also the lead agency responsible for the identification, planning and development of Strategic Industrial Areas (SIAs) across the state. SIAs are designed for use by strategic and heavy industries that generate large investment, employment and value of production. The department is currently working with Development WA to progress the Government's commitment to establish a \$50 million Industrial Lands Authority Land Development Fund to make strategic industrial land more affordable and support the development of strategic industries.

The department is supporting a number of other initiatives in the resources sector, including implementing:

- the Western Australian Renewable Hydrogen Strategy by facilitating a globally competitive WA renewable hydrogen industry, and developing a Mid-West Hydrogen Hub in the Oakajee Strategic Industrial Area.
- the Future Battery Industry Strategy and working with industry to maximise downstream processing opportunities as this industry grows and develops.

Defence

WA is well placed to advance more strategic partnerships between industry and defence and expand its role within both national and global highly specialised defence supply chains. To achieve this, the department is:

- promoting, and facilitating the development of, the WA defence industry through the implementation of the WA Defence and Defence Industries Strategic Plan.
- supporting the Defence Science Centre to facilitate collaboration in research which will lead to the enhancement of Australia's defence capability.
- implementing the Government's \$18 million commitment to develop a pipeline of workers for the defence industry.

Space

The global and national space sector is growing rapidly and presents significant opportunities for WA. The department is supporting the growth of the state's space industry by:

- implementing the \$3.9 million commitment to grow the WA space sector and secure a considerable share of the Australian and international space funding currently available.



- managing the WA Government's commitment to key initiatives, including: the Australian Remote Operations for Space and Earth (AROSE); the Australian Space Data Analysis Facility (ASDAF); the establishment of the Australian Space Automation, AI and Robotics Control Complex (SpAARC); and the launch of five Binar CubeSats by Curtin University's Binar Space Program.

Tourism

The department, through Tourism WA, is continuing to deliver a range of COVID-19 response initiatives to ensure the tourism sector is in a competitive position once the state is opened to interstate and international visitors. These initiatives include:

- providing support for industry through the Regional Aviation Recovery initiative and Tourism Attractions Case Management activities.
- encouraging domestic tourism for Western Australians, and the 'visiting friends and relatives' market where the controlled interstate border arrangements allow for travel, through the Wander out Yonder campaign.
- getting ready for re-opening by encouraging unemployed and underemployed Western Australians living in regional areas to get involved in the local tourism and hospitality sector, and encouraging the community to consider tourism/hospitality as a career, to develop a long-term sustainable workforce.
- becoming the nation's premier destination for authentic Aboriginal tourism following the launch of the Jina: Western Australian Aboriginal Tourism Action Plan 2021-2025, which is backed by the \$20 million Aboriginal Tourism Fund.

International Education

The department is implementing the Western Australian International Education Recovery and Renewal Plan, to guide the sector's recovery and renewal and ensure it emerges from the pandemic in a position of strength.

Key initiatives from the Plan include:

- the International Education COVID-19 Industry Support Fund, which provides relief to small and medium sized providers to help them remain viable while the international border remains closed and onshore international student enrolments are limited;
- the Online Capability Fund, to support international education providers to maintain, expand or optimise their online or remote capabilities, virtual engagement, course offerings and services;
- student engagement and wellbeing initiatives to ensure students' time in WA continues to be positive; and
- the development of a WA International Education offshore marketing strategy to raise awareness of WA as a world-class international study destination to prospective students and rebuild the pipeline of future students by encouraging students to start their studies online or remotely.



4.3. Cross-sector activities

In addition to sector-based activities, the department works on a number of cross-sector activities; that is, activities that support multiple sectors of the economy. These cross-sector activities are critical to improving the value and productivity of the economy and improving the international competitiveness of export sectors.

Science

Science supports the development of industries and the workforce of the future, improving competitive advantage and productivity. Science also offers solutions to challenges in areas such as community health, sustainable development and a prosperous low-carbon future. The department is responsible for supporting research and development across government departments, attracting investment in innovation, and creating linkages across government agencies and between industry, research and academic organisations at local, national and international levels through programs, developing:

- skills and understanding in science, technology, engineering and mathematics through the Future jobs, future skills: Driving STEM skills in WA, Scitech investment, and \$1.6 million over the next four years to the Perth Observatory Volunteers Group for STEM education and operations.
- research excellence through the Premier's Science Awards, Premier's Science Fellowship Program, International Centre for Radio Astronomy Research and Busselton Health Study.
- WA research infrastructure through co-investment in the National Collaborative Research Infrastructure Scheme facilities including the Pawsey Supercomputing Centre.
- research collaboration through Cooperative Research Centres, the WA Marine Science Institution and the WA Biodiversity Science Institute.

Future Manufacturing

The department is supporting the creation of future manufacturing jobs by initiatives such as:

- supporting the establishment of a Global Advanced Manufacturing Hub within the Western Trade Coast (Western Australia's premier industrial area consisting of four key areas: the Kwinana Industrial Area; Rockingham Industry Zone; the Australian Marine Complex in Henderson and Latitude 32) to grow the state's advanced manufacturing capabilities and participation in emerging global supply chains.
- working with the Australian Government to ensure that WA industry can access the \$1.3 billion Modern Manufacturing Initiative.
- commissioning a full feasibility study, with the intention to achieve greater local participation in the manufacture and maintenance of iron ore railcar wagons.



- facilitating the application of the strategic project approach under the WA Jobs Act for the purchase of systems by Western Power and Horizon Power to promote the local manufacture of standalone power systems.
- convening the Local Industry Participation in Wind Farm Supply Action Group to develop an action plan to implement the recommendations from the Wind Farm Supply Opportunities in Western Australia Report, and deliver on the \$10 million commitment to facilitate the local manufacture of wind farm componentry, particularly wind turbines, in WA.

Innovation and New Industries

Innovation underpins the productivity, competitiveness and resilience of businesses. Firms with high productivity are able to pay higher wages and attract highly skilled workers, generate more value for consumers, and pay higher returns to investors. The New Industries Fund will continue to support and accelerate scalable startups and SMEs to diversify the WA economy and create new jobs and industries.

4.4. Investment attraction and trade promotion

The department is the lead agency for the WA Government's investment attraction and trade promotion activities. The WA Government launched Invest and Trade WA in 2019, delivering on a key election commitment to establish a refreshed and comprehensive approach to attracting investment and growing trade in the state. Invest and Trade WA is a key element of the WA Government's jobs and economic diversification agenda, delivering a collaborative, responsive and client-focused service that makes connections between businesses and investors to grow and diversify the economy.

The Perth Hub of Invest and Trade WA provides on-the-ground support to WA industry who are looking to attract interstate or foreign investment or grow their business in international markets. The Perth Hub also has dedicated staff who support investment and trade events, ministerial missions and delegations, strategic partnerships and international engagements, including sister-state agreements, to foster investment and trade outcomes for WA. The Perth Hub works in partnership with the international offices to support the state's economic diversification objectives. This includes:

- developing the Invest and Trade WA website, launched in January 2021, to promote WA to both interstate and overseas as a world-leading investment and trade destination. The Invest and Trade WA website profiles the state's key industries for interstate and overseas audiences, and includes Market Outlooks for 8 key markets.
- developing and reviewing annual whole-of-government Investment and Trade Plans, which outlines the WA Government's approach and proposed initiatives to strengthen WA's investment and trade outcomes.
- export and investment attraction servicing for both domestic and international clients.
- facilitating a wide range of market and sector-specific investment and trade events.



- hosting inbound delegations and dignitaries, both in-person and virtually where necessary.
- overseeing the state's international partnerships including sister-state relationships and other agreements and memorandums of understanding.
- implementing the WA Government's election commitment to establish the Investment Attraction and New Industries Fund, which will support industry assistance, attraction and grants, build on the Government's existing industry development initiatives, and support the relocation of industries and company headquarters to WA.
- implementing WA's Asian Engagement Strategy 2019-2030 – Our Future with Asia, by delivering Asia Business Capability workshops, implementing the Access Asia Business Grants Program, partnering with organisations on market-based forums, and facilitating the WA-ASEAN Trade and Investment Dialogue.
- leading the State's engagement with the Australian Government on investment trade policy matters including consultation on Free Trade Agreement negotiations and reviews, managing compliance across government with the *Australia's Foreign Relations (State and Territory Arrangements) Act 2020* and providing input to the Foreign Investment Review Board.

The establishment of Invest and Trade WA has occurred alongside the WA Government's move to a regional 'hub and spoke' model for WA's international network with the eight international offices grouped into five regional hubs: ASEAN, China, India-Gulf, North East Asia and UK/Europe. This model provides for greater flexibility and enables the government to be more responsive to emerging market and industry priorities, including the challenges associated with the COVID-19 pandemic.

4.5. Capability building

The department is conscious that WA's economic growth needs to be inclusive; that is, opportunities need to be available to people across all regions of the state and across all demographic groups. In particular, there needs to be sustainable and meaningful employment opportunities for Aboriginal people.

The department is reducing barriers to business growth and supporting the creation of local jobs and stronger regional economies by:

- administering the WA Industry Participation Strategy, developed under the *Western Australian Jobs Act 2017* and the *Western Australian Buy Local Policy 2020*, to ensure WA businesses get a greater share of contracts to supply goods, services and work to the Government.
- administering the Local Capability Fund (LCF) to assist local businesses to increase their capability and competitiveness. The LCF plays a critical role in supporting small and medium enterprises (SMEs) to access the Government's estimated \$30 billion annual spend on goods, services and works. In 2021-22, three new rounds worth a total of



\$2 million have been announced. The first of these new rounds is targeted at businesses with majority Aboriginal ownership, where funds are available to improve their capability and competitiveness to supply goods, services and works.

- introducing free regional training workshops covering contracting policy and practice to increase the involvement, capability and capacity of regional SMEs in government contracting.
- delivering the Western Australian Industry Link Regional Communication Forums in all nine regions to offer local businesses the opportunity to hear directly from government agencies about contract opportunities.
- creating a new Case Management unit to work across government agencies to strengthen support for complex proposals under the whole-of-government Regulatory Approvals Framework, as part of the Streamline WA suite of regulatory reforms.

5. Key factors affecting inbound investment

Investment fuels growth and generates employment by enhancing the productive capacity of the economy. It helps stimulate demand for local goods and services, promotes exports and generates government revenue for service provision. Investment from foreign or interstate services opens local businesses to global supply chains and new international markets, and provides key channels for learning and technology transfer. Investment can also play a key role in diversifying local industry and securing trade in new sectors. In short, investment is key to maintaining and improving the high standards of living Western Australians enjoy.

For many years, WA has enjoyed positive net investment into the local economy. As with almost all aspects of the WA economy, investment is dominated by mining. More than \$20 billion was invested into WA's mining and petroleum sectors in 2020 and mining accounted for 72% of WA's new capital expenditure in 2020. The state's share of national mining and petroleum investment has recently increased to 54%.

A number of factors position WA as a secure place for resources sector investment including its supportive government, its strong economy, mature financial and support service sectors, and a skilled workforce. WA is one of the most diverse resource regions in the world, with more than 50 mineral and petroleum products being produced in commercial quantities. The state is a significant operating base for the world's largest diversified mining companies and a global leader for specific commodities.

In addition, WA's vast size, varied geography and diverse climate zones enables production of a broad range of agri-food products including seafood, dairy, fruit, vegetables, meat, livestock, aquaculture, grains, pulses, oilseeds, honey, processed foods, wines and



beverages. The state's relatively high-cost, but highly-skilled agricultural workforce, results in a food and beverage industry that emphasises new innovations to improve productivity, increase quality, extend product life and improve supply chain and product traceability. With strong links to research and development, and a commitment to biosecurity, WA is well placed to attract investments into its food sector to better meet the growing regional demand for premium products that are sustainably and ethically produced in a green, clean environment.

5.1. Current investment environment

The COVID-19 pandemic is projected to have a significant impact on global Foreign Direct Investment (FDI) with the pandemic acting as a supply, demand and policy shock. Global flows of FDI have been severely hit. The United Nations Conference on Trade and Development (UNCTAD) reported that global FDI flows dropped by 35% to \$1 trillion, from \$1.5 trillion in 2019. This is almost 20% below the 2009 trough after the global financial crisis.

Following deficit spending by governments over the past few years, it is expected that public policy in the coming years will favour a greater focus on debt management over further stimulus. This suggests a greater role for private investment. However, early indicators on greenfield investment and international project finance – and the experience from past FDI downturns – suggest that even if companies and investors are gearing up for 'catch-up' capital expenditures, they will still be cautious with new overseas investments in productive assets and infrastructure.

Nevertheless, foreign economies had a total of \$4 trillion invested in Australia at the end of 2020, a 2.2% increase from 2019. This could indicate that investors are taking confidence from Australia's strong management of the global pandemic. Australia remains a very safe, secure and stable place to invest. Australia also leads the world in trustworthy, reliable, and high-quality supply chains. This may result in an increase in investment from the 'safe-haven effect'. The most promising investment source in the short-term is likely to be from existing investors.

Investment decisions are typically grounded in the rate of return and payback period, but getting an investment opportunity considered is often a product of persuasive marketing, informed dialogue, strong relationships and the compelling characteristics of the location.

WA's onshore and offshore engagement, and responsiveness to opportunities has required agility and innovation as traditional business practice and tradecraft have been constrained by the guidelines and restrictions that governments have placed on citizens globally to limit the transmission of COVID-19.

To help offset risks, the WA Government provides a number of investment incentives. This has included incentives for greenfields exploration for extractive industries, an investor ready



incentive grant for food and beverage producers and financial assistance to businesses who employ an apprentice or new entrant trainee.

5.2. Strategic investments

Global investment decisions are shifting, largely driven by the digitisation and automation of production processes, rising environmental and social awareness, and changing geopolitical dynamics. The economic shock delivered by the COVID-19 pandemic has accelerated this change, as companies and countries around the world are shifting their focus from competitiveness through marginal efficiency to more strategic considerations of risk, resilience and transparency. The push for supply chain resilience in particular could lead to pressures in some industries to reconfigure international production networks through reshoring, regionalisation or diversification.

One sector of strategic importance in this regard is critical minerals, which includes minerals such as lithium, vanadium, antimony, cobalt, manganese, tungsten, scandium rare earth elements and heavy mineral sands. These are used in a range of high-tech applications across a variety of sectors such as renewables, aerospace, defence, electric vehicles, telecommunications and agri-tech, and are hence critical for the economic and industrial development of major and emerging economies.

The scarcity of critical minerals leaves them potentially vulnerable to supply constraints. Many countries are now looking to make strategic investments in critical minerals projects as a means to secure supply. Australia has significant geological reserves and existing mining capacity for these minerals with much of this concentrated in WA. With growing investment in the extraction of these minerals, WA is well placed to capitalise on global demand and address potential shortages.

5.3. Environmental, Social and Governance credentials

Environmental, Social and Governance (ESG) awareness is growing rapidly, with ESG credentials now strongly factoring into investor decision making. This push is being seen across all of WA's key markets, driven by regions with ambitious environmental targets, such as Europe. UNCTAD estimates the value of sustainability-themed investment products has grown rapidly, increasing 80% in one year to \$3.2 trillion in 2020. These products include sustainable funds, green bonds, social bonds and mixed-sustainability bonds.

The WA Government is committed to environmentally responsible production processes, including a commitment toward renewables and net-zero emissions, as reflected through key environmental regulatory policies and statements, such as:

- The WA Climate Policy and establishment of a net-zero greenhouse gas emissions aspiration for WA by 2050, to position the state for a low-carbon future.



- Delivery of the WA Energy Transformation Strategy to ensure the delivery of secure, reliable, sustainable electricity and enabling the integration of more renewables and new technologies into the power supply chain.
- Establishment of a Clean Energy Future Fund to support innovative clean energy projects in WA with the potential to decarbonise existing industry, enhance energy efficiency or develop new low carbon industries.
- Carbon sequestration policies, including establishing the \$15 million Land Restoration and Carbon Farming program, investing \$15 million into the Native Vegetation Rehabilitation Scheme, and opening up carbon sequestration projects in National Parks and on conservation estates.

The WA Government continues to support industry to progress further down the value chain into less emissions intensive activities such as battery manufacturing and recycling.

The WA Government is also committed to socially responsible investment to optimise health and wellbeing, education and equality outcomes. Key ongoing activities include:

- Engaging with native title groups and Aboriginal communities to develop agreements that accelerate economic and community development.
- Implementation of Royalties for Regions, which provides funding for economic and social development in regional WA. This includes investment in social and community infrastructure such as education, housing and health services.
- Engaging with local governments on social investment opportunities.
- Supporting and promoting equality in WA, which is underpinned by state and federal legislation, including the *WA Equal Opportunity Act 1984* and the Australian Government's *Workplace Gender Equality Act 2012*. The WA Government is also implementing the Plan for Gender Equality, which provides a framework for government, business and community to advance gender equality.