



PR MOTING PERTH



OUR WORLD
LEADERS

Ready to shine on the big stage • Top people, smart companies and great ideas

*Perth is the western gateway to Australia and sits in the world's most populous time zone.
Photo: David Henry.*



Ready to shine on the big stage

STORY: MARION FULKER

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IN the Committee for Perth and The University of Western Australia's report, Perth as a globally connected city, there is much data to draw on.

The report tracked Perth's economic transformation in terms of what the state exported and the countries it traded with.

At the beginning of the last century, WA's major export commodities were gold (33 per cent), wheat and flour (23 per cent) followed by wool (22 per cent) and timber (16 per

cent), much of which went to the UK as the largest trading partner at 64 per cent.

Wind forward 100 years and it is iron ore and the trading relationship with China that dominate.

Perth's role as the state's capital, and home to corporate decision makers, has become more complex, as illustrated in a series of maps detailing the increasing connectivity between Perth and cities across the globe, which have become significant

players in the resources and energy sectors.

Over a century, Perth's fortunes have ebbed and flowed on the back of WA's economic cycles.

In 2021, we find ourselves in favourable times once again.

A period in which the talent of our people, companies, governments and institutions can benefit from realising the opportunities afoot.

There is a palpable sense WA's management of the



“ Now that we have that track record of success, we are ambitious to do more

COVID-19 pandemic so far has boosted the state’s reputation, making Perth a desirable place to live, work, study, invest and visit.

This makes it critical to act to seize the moment.

Perth hosting the AFL grand final is a case in point. A once-in-a-lifetime opportunity presented itself and, by working together, we created something spectacular.

Perth delivered in spades on the last weekend in September, embracing the two teams from over east as if they were our own.

We welcomed their players, coaches and support staff into our community and used every moment afforded to show just how much Perth has to offer.

Now that we have that

track record of success, we are ambitious to do more, including wanting to host another grand final and potentially bidding to host the 2026 Commonwealth Games or the 2027 Special Olympics World Games.

Large-scale events can put cities on the map.

Carefully planned and managed with a clear legacy in mind, they leave the community better than it was before.

This is the mindset we should bring to the opportunities before us, be they post-pandemic or post-grand final.

Perth is the western gateway to the nation. It’s located in the world’s most populous time zone; a place recognised for its natural beauty, that is

safe and highly liveable.

Thanks to the grand final long weekend, Perth is now also known for its ability to host and execute something unplanned as if it had been years in the making.

Well played Perth.

From the inaugural edition of Promoting Perth in April through to this final issue, the journalists at *Business News* have covered the very best of the west and debunked a few myths along the way.

The seven editions have created a knowledge bank to remind us about the ways in which Perth is unique.

It’s a reminder for us as and for those living elsewhere – it documents our credentials as the nation’s most westerly capital city.

What has become clear is

that our business ecosystem profits from wise heads as well as young disrupters.

It is comprised of companies that have operated for decades, along with newcomers.

It has benefited from those returning home seeking a safe haven during the pandemic as much as those of us grateful to have ridden it out here.

The Promoting Perth series was developed to provide the evidence to talk Perth up and has done so by showcasing its people, ideas and companies.

I think we have achieved our goal. ✓

Top people, smart companies and great ideas

Business News has devised a collection of some of Perth's world-leading innovations.

STORY: MADELEINE STEPHENS AND MATT MCKENZIE

Medical marvels

SOME of Perth's medical research discoveries have had a global impact.

Barry Marshall and Robin Warren discovered the *helicobacter pylori* bacterium in 1982, and later proved it was the cause of peptic ulcers and most stomach cancers.

The pair received a Nobel Prize for Physiology or Medicine in 2005 for their discovery.

Earlier this year, the Federal Drug Administration in the US announced a third drug to treat Duchenne muscular dystrophy, developed by a team of researchers working out of the Perron Institute and Murdoch University's Centre for Molecular Medicine and Innovative Therapies, had received accelerated approval.

Researchers Steve Wilton and Sue Fletcher led the project.

The drugs, eteplirsen, golodirsen and now casimersen, can treat almost 30 per cent of people with the disease, which causes muscle wasting in children.

Recently, Telethon Kids

Institute revealed the results of a study, which found parent-led intervention with babies displaying early signs of autism, could reduce the likelihood of a diagnosis in early childhood by two thirds.

The international study, led by Angela Wright Bennett Professor of Autism Research and Clinikids director Andrew Whitehouse, provided the first evidence that such an intervention would have an impact on diagnoses.

At the time the research was released, Professor Whitehouse said while many therapies for autism tried to replace developmental differences with more 'typical' behaviours, the pre-emptive therapy used in the study, iBASIS-VIPP, worked with children's differences to create an environment where the child would learn best.

He said children falling below the diagnostic threshold still had developmental difficulties, but the therapy improved their development through their early childhood years.



Telethon Kids Institute released significant research on autism last month. Photo: Gabriel Oliveira



Austal builds Cape-class patrol boats. Photo: Austal

Austal on world stage

PERTH shipbuilder Austal's vessels can be found in 54 countries.

The ASX-listed manufacturer started in Perth's south in 1988 and has since expanded to operate shipyards in Australia, Vietnam, the United States and the Philippines.

Austal has subsidiaries in the US, and is one of the only foreign-owned contractors to design, build and maintain ships for the US Navy.

In the past few months, the company has been awarded a \$198.5 million contract to build two towing, salvage and rescue ships for the US Navy, a \$32.8 million contract to design and build a 66-metre

tourist boat for a company in French Polynesia, and a \$57 million contract to develop autonomous capability on a 13th expeditionary fast transport vessel.

In 2020, it missed out on a \$US795 million contract to build guided missile frigates, which went to Wisconsin-based Fincantieri Marinette Marine.

However, on the same day, Austal secured a \$324 million contract to build Cape-class patrol boats for the Royal Australian Navy.

The company delivered a record 19 ships last financial year, and had 29 ships under construction or scheduled at June 30.

Energising power solutions

LIVING in one of the world's least densely populated jurisdictions is not without its challenges, particularly when it comes to connecting remote communities to the electricity grid.

But it has also provided an opportunity, in the uptake of microgrids and standalone power systems.

Microgrids have decentralised generation and operation and can work separately from traditional grids.

The state government committed \$10 million in 2016 to a renewable energy microgrid in Kalbarri, improving power reliability in the town.

Since then, more microgrids have been rolled out, with construction of a hydrogen microgrid in Denham starting in May.

It will use electrolysis to store electricity as hydrogen, rather than batteries or pumped hydro, to help smooth out the production of renewable generation.

The Denham microgrid is

one of 34 managed by Horizon Power.

Western Power has rolled out standalone power systems, which can provide energy for farmers at the fringe of the grid.

That improves reliability and is also cheaper than running long lines of poles and wires to very small numbers of customers at the edge of the system.

More than 1,000 further systems will be installed, the government promised at the March election.

That is substantial. *Business News* reported in 2019 there were about 300 such microgrids in the entire United States.

Speaking to *Business News* on the creation of the International Microgrid Association, founder Terry Mohn said WA was "where all the action is" on microgrids.

WA startups are hoping to take this further, including Village Energy, which aims to use microgrids in developing markets.

Power Ledger has used blockchain technology to process energy transactions, which helps run microgrids.

The company won Richard Branson's international Ex-

treme Tech Challenge in 2018.

EDL's microgrid at the Agnew gold mine won Engineering Solution of the Year at the 2020 Global Energy Awards.

A 2017 report by Austrade said the market could be worth \$20 billion annually by 2024, and Australia was shaping as a global leader in designing future power grids.



Horizon recently rolled out batteries in nine regional towns. Photo: Horizon Power

Fringe starts in January each year.

Staging Fringe World

PERTH is home to one of the largest fringe festivals in the world.

Before the COVID-19 pandemic derailed large arts events, the city's Fringe World Festival was ranked as the third largest, with 414,081 tickets issued in 2020.

Edinburgh Fringe is the largest in the world, with three million tickets sold in 2019. South Australia's Adelaide Fringe has the title as the second biggest after selling 853,419 tickets in 2020.

The 2021 Perth event was the first major fringe festival to go ahead after the pandemic took hold.

The 2021 iteration was a lot smaller than previous festivals, selling 226,800

tickets, after the Perth and Peel regions entered a snap four-day lockdown in February and capacity restrictions continued for the remainder of the festival program.

While the 2021 program mainly consisted of local acts due to COVID-19 border rules, in previous years, the line-up had included interstate and international acts.

In the 2020 festival, held before the pandemic, 13 per cent of artists were from interstate, 15 per cent were from overseas and 72 per cent were locals, according to the 2020 Fringe World Impact Report.

About 3,000 audience members travelled from interstate or overseas for the event.



Bob Muirhead founded RCT. Photo: Gabriel Oliveira

Mining's cutting-edge tech

PERTH'S mining technology businesses have developed in lockstep with Western Australia's mining industry.

RCT is one of the companies which has evolved with the sector.

It was founded in 1972 when Kalgoorlie electrical fitter Bob Muirhead created a fail-safe engine protection system to improve the reliability of underground mining equipment.

It has since grown to provide automation, information and protection systems to clients in the mining industries on six continents.

Osborne Park-based Immersive Technologies has also grown into a global player

offering training and workforce solutions.

Its mining equipment simulators are used in 45 countries and it has offices in cities, including Brisbane, Vancouver, Jakarta, Moscow and Johannesburg.

Fellow mining technology company MICROMINE has developed software for the industry which provides data services and the controlling and reporting on mine production.

It has 21 offices located in mining capitals, as well as its head office in Perth.

In 2021, MICROMINE made two acquisitions: Queensland-based Precision Mining and WA mining software business Alastri.



Iron ore miners lead way

WESTERN Australia is the world's largest iron ore supplier, responsible for 920 million tonnes or 39 per cent of global supply in 2020.

The state is well-endowed, boasting 28 per cent of the world's crude iron ore reserves.

Some of the largest iron ore miners in the world, Rio Tinto, BHP and Fortescue Metals Group, have operations in WA.

Andrew Forrest-chaired Fortescue was founded in WA, while BHP is headquartered in Melbourne and Rio Tinto is based in London.

Despite the corporate

offices of BHP and Rio Tinto being located elsewhere, the miners are some of the largest employers in the state and the Perth offices are often visited by their respective chief executives, Mike Henry and Jakob Stausholm.

In 2020, Rio Tinto sold 331 million tonnes, BHP sold 290 million tonnes and 180 million tonnes were sold by Fortescue.

According to data from the Department of Jobs, Tourism, Science and Innovation, the state is one of the lowest-cost seaborne iron ore exporters because of its proximity to the major iron ore markets in Asia.

It costs on average \$US34.50, to export a tonne of iron ore from WA, compared with a world average of \$US45.30/t, and major

competitor, Brazil, where it costs \$US36/t.

The iron ore industry makes Port Hedland the largest bulk export port in the world.



WA is home to 28 per cent of the world's crude iron ore reserves.



Premier Mark McGowan has enforced a hard border for much of the pandemic. Photo: David Henry

Handling of COVID-19

THE state's elimination of the COVID-19 virus from the community has enabled businesses to continue operating, and protected the health of Western Australians.

Since the virus started spreading around the world, the state has recorded 1,110 confirmed cases and nine deaths.

According to Johns Hopkins University COVID-19 dashboard, WA has a case-fatality ratio of 0.81 per cent, compared with Australia's ratio of 1.17 per cent.

If WA was a country, its case-fatality rate would be lower than other developed nations, including the Netherlands (0.91 per cent), Japan (1.04 per cent) and

France (1.65 per cent).

WA residents have also spent less time in lockdown.

People in the Perth and Peel regions have been in lockdown for about 69 days since the pandemic began.

Other cities, including Melbourne, London, Santiago and Dublin have experienced lockdowns which have stretched for more than 200 days.

While WA has managed to eliminate the virus, there is concern about its vaccination rate.

At the time of writing, about 50 per cent of people have had their second dose, and 67 per cent have received one jab.

There is also pressure on the state to outline a plan for lifting its border restrictions.



The array will be able to see further into the universe than any telescope ever built.

Square Kilometre Array

THE Murchison region will be home to a part of the world's largest radio telescope, the Square Kilometre Array, with construction expected to start early next year.

It will be the culmination of more than a decade of work by Western Australians, with the biggest step the development of the Murchison Widefield Array, a \$50 million investment, which started operation in 2013.

The SKA is the work of an

international consortium, and will be built partly in WA and partly in South Africa.

The array will be able to see further into the universe than any telescope ever built.

That also means the SKA will be able to look back further into the history of the universe than any other telescope, because the distant radio signals it will collect took billions of years to reach Earth.

Business News has previously reported the facility

will be about 3,000 times better than anything in operation today.

Receiving data from such a distant time in the universe means being able to study the period close to the aftermath of the Big Bang.

All of this has been backed up by big investments in supercomputing power, while one of the biggest supercomputers in the world is planned by DUG Technology in Geraldton.

Navitas pathways

STUDENTS from all over the world are enrolled in Perth-founded education company Navitas' courses.

The education provider offers pre-university and pathway programs, English language programs, vocational training and undergraduate and postgraduate degrees to 70,000 students in 31 countries each year.

The largest part of its business is university partnerships, where the company links with tertiary institutions to provide a pathway program for students to enter a university.

The courses are equivalent to the first year of a bachelor's degree and, once successfully completed, students can enter their second year of university.

Navitas has partnerships with institutions, including Curtin University, the University of Plymouth in England and Ryerson University in Canada.

It was established by Rod Jones and Peter Larsen in 1984, who were involved in the secondary and tertiary education sectors.

It listed on the ASX in 2004 and changed its name from IBT Education to Navitas in 2007.

In 2019, the company delisted, and was purchased by a consortium comprising of BGH Capital, Australian Super and founder Mr Jones for a sum of \$2.1 billion.



Navitas was established in 1984. Photo: Attila Csaszar



Grace Forrest co-founded Walk Free.

Measuring Walk Free

WALK Free Foundation publishes the Global Slavery Index, the worldwide dataset on modern slavery.

The index measures the extent of the issue in each country and the steps governments are taking to respond to the issue to measure progress towards ending modern slavery.

Perth-based Walk Free Foundation, with its partner organisations, interviewed about 70,000 people to create the index, as well as collecting data from other sources.

Four editions of the index have been published so far, and one is due to be completed in 2022.

Walk Free, established by mining magnate Andrew Forrest and his daughter, Grace Forrest, is part of the Forrest family's philanthropic venture Minderoo Foundation.

The body itself is one of the largest philanthropic organisations in Asia, with \$2 billion committed to its programs.

Other initiatives the foundation has established have

the potential to become world-leading, too.

According to the foundation's annual report, it's Fire and Flood Resilience arm, established after the bushfires in summer 2020, is aiming to become the global leader in natural disaster resilience by 2025.

Another initiative, Flourishing Oceans, is addressing overfishing by publishing a Global Fishing Index, which will assess countries on the status of fish stocks and fisheries governance. ✓