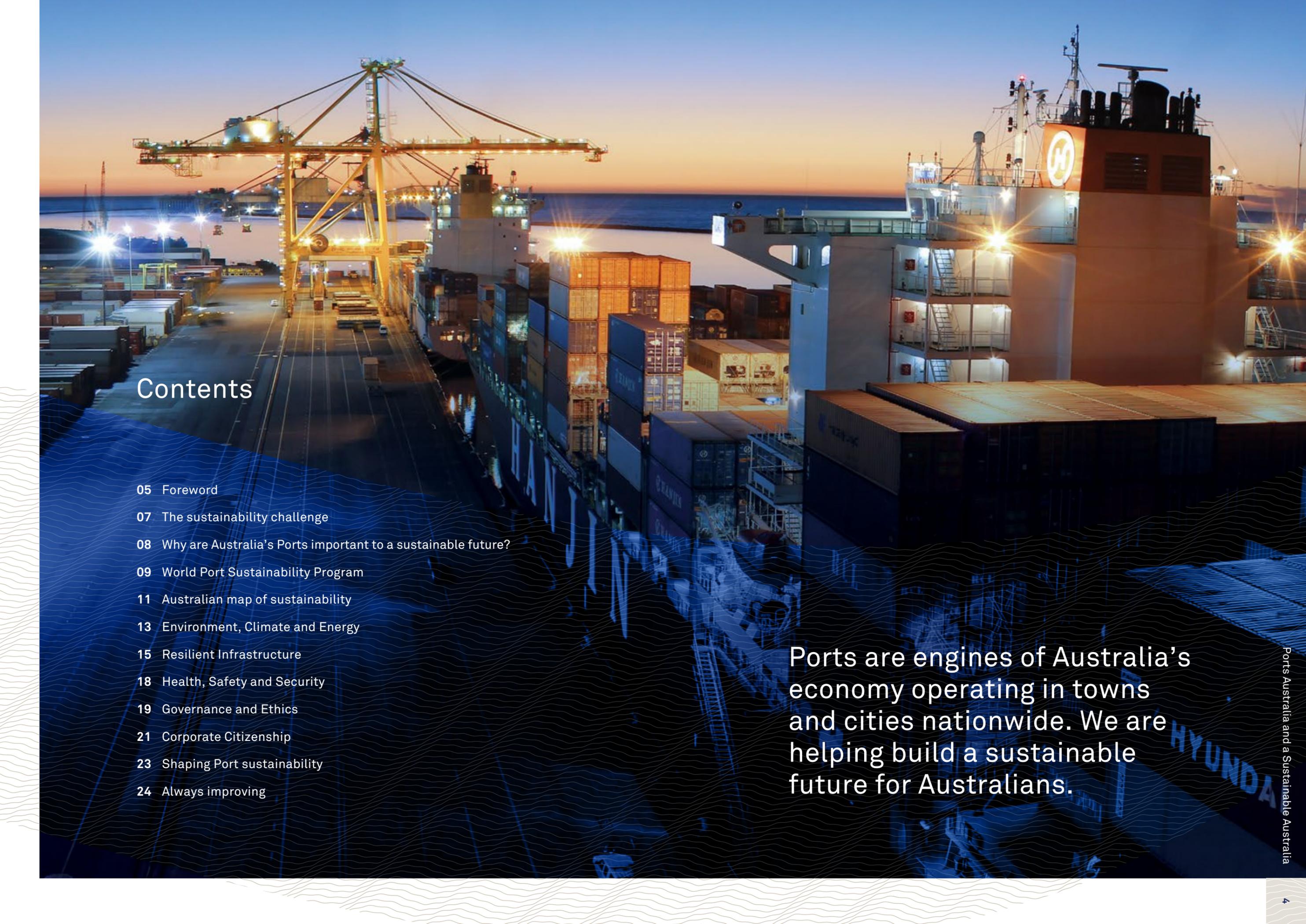


Ports and a Sustainable Australia



Ports Australia



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Ports are engines of Australia's economy operating in towns and cities nationwide. We are helping build a sustainable future for Australians.

Foreword

The world is faced with increasing sustainability challenges due to rising inequality, population growth, climate change, pollution and plastic waste. The responsibility to address these challenges requires a joint effort across all sectors of government and industry.

Ports operate in cities and towns across Australia, and as engines of a healthy economy are uniquely positioned to help address local and national sustainability challenges.

Ports have historically been the centres of coastal towns and cities. We have been actively working with generations of Australians to improve these communities that Ports live in and work with.

This report showcases some of the sustainability work the Ports sector has undertaken to contribute towards a more sustainable Australia.

Ports Australia is a member of the World Ports Sustainability Program (WPS), guided by the UN Sustainable Development Goals (SDGs) the program has been established to support Ports globally in working towards a sustainable future. This report forms part of Ports Australia's contribution to the World Ports Sustainability Program's library of collaborative efforts to enhance and coordinate future sustainability worldwide.

We have included examples of work done by Ports around the country that improve the sustainability of their local environments and communities. These case studies are a small sample of the work happening around the country, find out more at portsaustralia.com.au



**The Hon Mike Gallacher,
Chief Executive of Ports Australia**



Ports Australia

Ports Australia is the national peak body representing government and privately owned ports. Formed at the first interstate harbour conference in 1916, Ports Australia has provided advocacy, coordination and leadership for over 100 years to sustain the port communities while fostering economic, innovative and sustainable growth.

Port authorities and corporations together with the Department of Defence form part of our membership, along with various support service companies to the Port sector.



The sustainability challenge

Sustainability is at the core of planning for the future, not only for businesses but for the community in general. For Australia's Ports this is no different. We see sustainability planning as essential to business success, to ensure we have an environment that is operational over the long-term and is supported by those with whom we operate and interact.

In September 2015, United Nations (UN) member states adopted a set of goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. The UN has stated that for the goals to be met, everyone needs to do their part.

Why are Australia's Ports important to a sustainable future?

Global sustainability challenges effect people and business operations including Ports. Approximately 90% of the world's trade in goods occurs via our oceans, moving over 10 billion tonnes annually¹. Australia is an island nation dependent on trade, where business is transacting with the world, 365 days a year 24 hours a day making ports critical to the daily lives and prosperity of Australians.

Located along Australia's coastline, we are the natural intersection between land and sea, providing intermodal pathways to service Australians. The community and natural environment are both crucial for Ports ongoing success.

For daily life to continue uninterrupted, Ports must contribute to a healthy and sustainable operating environment (for more on this see shaping Port Sustainability in the appendix).

Fostering a sustainable approach to our natural and human environments has required Ports to develop new ways of facilitating business and working with their communities.

Australia's ports can differ vastly due to the nature of their operations, geographic setting, trade opportunities and community settings. Therefore, sustainability efforts vary depending on the Port, their environment and community.

¹ (UNCTAD (2017c). Review of Maritime Transport 2017. United Nations publication, Sales no. E.17.II.D.10. New York and Geneva.)
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This Report aims to exhibit some of the initiatives of Ports around Australia that respond to local sustainability and community challenges.

In September 2015, the United Nations (UN) member states adopted the Sustainable Development Goals (SDGs) to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. The UN has stated that for the goals to be met, everyone needs to do their part.

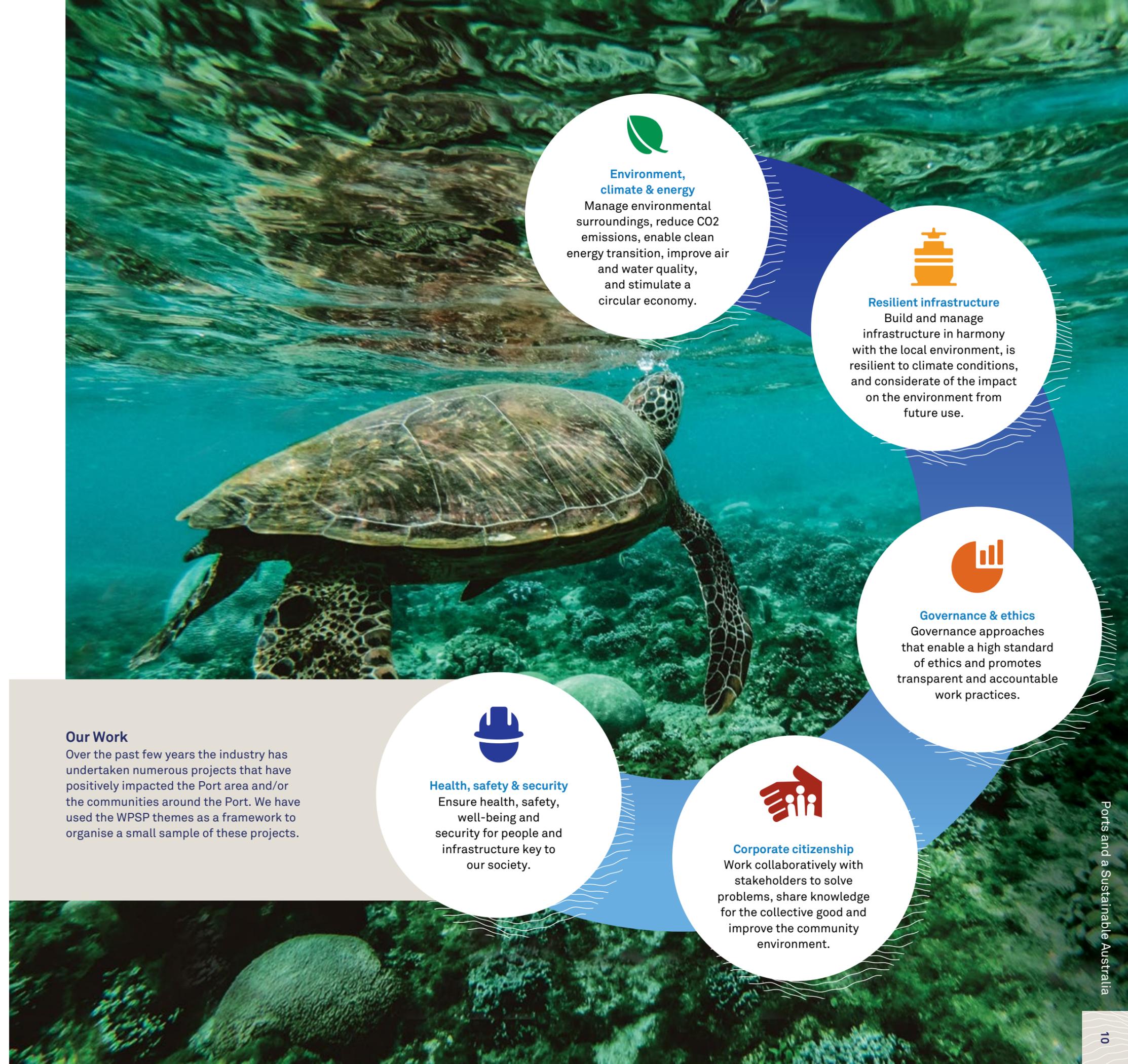
The World Ports Sustainability Program (WPSP) is a coordinated effort by ports globally to ensure the sustainability of our planet through port activities. The WPSP framework will help guide future port planning and operations. In September 2018, Ports Australia was invited and officially became a partner of the WPSP, committing our efforts to supporting Australian ports to implement this global framework.

The Australian government is committed to achieving the UN SDGs and Ports can contribute to our nation's commitment through demonstrating leadership in our operational environment creating positive change.



Our Work

Over the past few years the industry has undertaken numerous projects that have positively impacted the Port area and/or the communities around the Port. We have used the WPSP themes as a framework to organise a small sample of these projects.



Environment, climate & energy

Manage environmental surroundings, reduce CO2 emissions, enable clean energy transition, improve air and water quality, and stimulate a circular economy.



Resilient infrastructure

Build and manage infrastructure in harmony with the local environment, is resilient to climate conditions, and considerate of the impact on the environment from future use.



Governance & ethics

Governance approaches that enable a high standard of ethics and promotes transparent and accountable work practices.



Health, safety & security

Ensure health, safety, well-being and security for people and infrastructure key to our society.



Corporate citizenship

Work collaboratively with stakeholders to solve problems, share knowledge for the collective good and improve the community environment.

Australian map of sustainability

Through leadership and initiatives at the local level Ports across Australia are contributing to the country's combined response to our sustainability challenges. The following map and pages will explore just some of these initiatives organised along the UN themes previously mentioned.

-  Environment, climate & energy
-  Resilient infrastructure
-  Governance & ethics
-  Corporate citizenship
-  Health, safety & security



State-Wide Array Surveillance Program
Pilbara Ports Authority



Tiwi Islander Integration
NT Port and Marine



Transparency and Future Planning
Darwin Port



Resilient Infrastructure
Cairns Wharf Precinct Redevelopment



Unique Internship Opportunities
North Queensland Bulk Ports



Indigenous Empowerment and Partnership
Gladstone Ports Corporation



Beach Enrichment Project
Mid West Ports Authority



Solar Energy Initiative
Port of Brisbane



Safety for Life Program
Fremantle Ports



Port Lincoln Wharf Recycling Project
Flinders Ports



Shorebird Habitat rehabilitation
Port of Newcastle



Sustainable Concrete
NSW Ports



Supporting mental health programs
Geelong Port



Proactive Management of Firefighting Foams containing PFAS
TasPorts



Port Capacity Project
Port of Melbourne



Environment, Climate and Energy

Shorebird Habitat Rehabilitation

Port of Newcastle

The Port of Newcastle, in partnership with Newcastle Coal Infrastructure Group, has restored 28ha of saltmarsh and mudflats from mangrove invasion. Migratory shorebirds now use the area including the critically endangered Curlew Sandpiper and Whimbrel. Ongoing monitoring and refinement of the project will understand its successes and ensure its future protection as valuable habitat for migratory shorebirds.

Solar Energy Initiative

Port of Brisbane

Ports across the country are moving towards renewable energy. As technology advances, cheaper renewable energy options become available. With advancements in solar panels the Port of Brisbane has been able to begin a first phase of panel installation across the Port precinct. The Port has installed panels on their own sites and has partnered with Port tenants to assist them in installing their own solar panels. The precinct now has 182 kilowatts of solar panels which produce, on average, 1,269kWh of energy per day.

Beach Enrichment Project

Mid West Ports

Erosion is ongoing for coastal Australia and all our Ports. Mid West Ports Authority in partnership with the City of Greater Geraldton, has mapped the various impacts of coastal erosion and the importance of planning controls to meet those various potential impacts. MWPA now annually complete beach nourishment works across several of Geraldton's northern beaches and continues to monitor their outcomes. Putting sand into the system provides the northern beaches with a natural resistance to erosion and enhances community amenity.

Our Future Goals:

- 1 **Implement and promote transition to alternative and affordable clean energy sources (e.g. solar and biofuels).**
- 2 **Drive governments to support coastal and regional shipping – to reduce congestion in our cities and improve air quality.**





Resilient Infrastructure

Sustainable Concrete NSW Ports

Global infrastructure projects require a lot of concrete for their construction. The growing demand for aggregates to produce concrete is depleting natural resources. In partnership with the University of New South Wales, NSW Ports are exploring using steel furnace slag, which is a by-product of steel making industries in Port Kembla as aggregates for concrete. The concrete blocks being produced in this manner will be added to the Port Kembla breakwater and routinely tested. The use of alternative concrete compositions will reduce energy consumption during the concrete making process, and utilise more environmentally friendly materials and waste products.

Port Lincoln Wharf Recycling Project Flinders Ports

Port infrastructure is continually being maintained and replaced as the port grows. Flinders Ports and the City of Port Lincoln have worked together to salvage timber from an old wharf which was dismantled. The old timber has been reconditioned and used to commission four public art bench seats in the town of Port Lincoln. The art pieces connect the community with their cities, connecting the culture and its maritime past while providing a place to sit and relax. The installations have also proved popular with visitors, driving tourism to the waterfront.

Cairns Wharf Precinct Redevelopment Ports North

The Cairns wharves are the centrepiece of the Cairns Foreshore Redevelopment.

The wharves were constructed in the early 1900's and were the first set of reinforced concrete wharves built in the country. They are the last remaining wharves of their type in Australia servicing their communities admirably over the last 100 years.

The project re-used and revitalised an existing heritage listed built environment. Through re-using the existing wharf building, the project saved much of the energy and materials that would be required to create a facility of that size, whilst simultaneously remembering the past uses and giving a new direction to the precinct, reconnecting it to the Cairns of today.

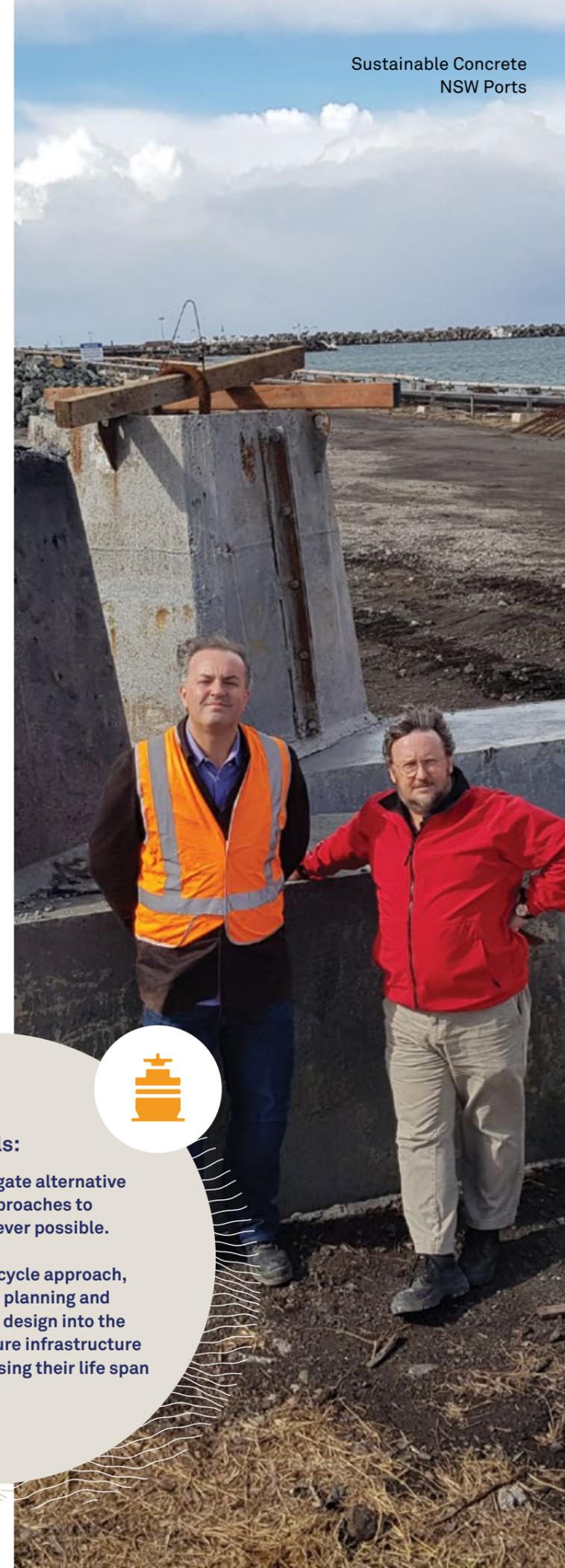
The success of the redevelopment was recognised with the Cairns Cruise Liner Terminal winning 10 architectural and engineering awards in its first year of operation.

Port Capacity Project Port of Melbourne

The Port of Melbourne has recently finished its Port Capacity Project which was Australia's largest infrastructure project at the time.

A project of this size presents significant sustainability and community challenges. The \$1.6 billion redevelopment of the Port incorporated key sustainability objectives across all aspects of the Project's planning, delivery and management. The development was guided by the Australian Green Infrastructure Council to ensure alignment with sustainability, environmental, social, economic and governance principles.

The Project was awarded the 2017 Australian Construction Achievement Award for its construction expertise, including its delivery of safe working practices, environmental controls and durable infrastructure.



Our Future Goals:

- 1 Further investigate alternative engineering approaches to dredging whenever possible.
- 2 Embed the life cycle approach, community use planning and climate change design into the planning of future infrastructure projects increasing their life span and resilience.





Health, Safety and Security

Proactive Management of Firefighting Foams containing PFAS

TasPorts

Per- and poly-fluoroalkyl substances (PFAS) materials are persistent organic pollutants used in firefighting foams and other man-made products. PFAS materials has been the target of public health concerns nationally and globally. All PFAS firefighting foam have been successfully removed from Tasmanian Ports and destroyed. TasPorts is a leader in Tasmania's approach to managing PFAS. Australian Ports are collectively working to safely destroy all remaining supplies of PFAS foam they may have onsite.

Safety for Life Program

Fremantle Ports

Ports have the potential to be dangerous places. Fremantle Ports implemented a Safety for Life program committing management and staff to integrate safety across all operations and to provide a safe and healthy environment for employees, contractors and visitors. In 2016, Fremantle Ports also hosted its first inaugural Safety Games. They emphasised the importance of planning and teamwork and were held as part of Safe Work Australia's National Safe Work Month. Workplace safety at Fremantle Ports continues to improve, with the 2017 results the best in 12 years.

Our Future Goals:

- 1 Be an industry driver in disaster management responses relevant to the environment surrounding the port and broader maritime sector.
- 2 Improve on annual industry benchmarks on health, safety and wellbeing for our employees and port users.





Governance and Ethics

Transparency and Future Planning Darwin Port

The Port of Darwin is the closest major Australian port to Asia. The Port is a catchment for a wide variety of industry sectors including live cattle, bulk resources, container and general cargo, defence and oil and gas. The Port also takes great care of the unique marine environment that it operates in. Working closely with corporate and government stakeholders in November 2018, the Port successfully undertook a maintenance dredging project.

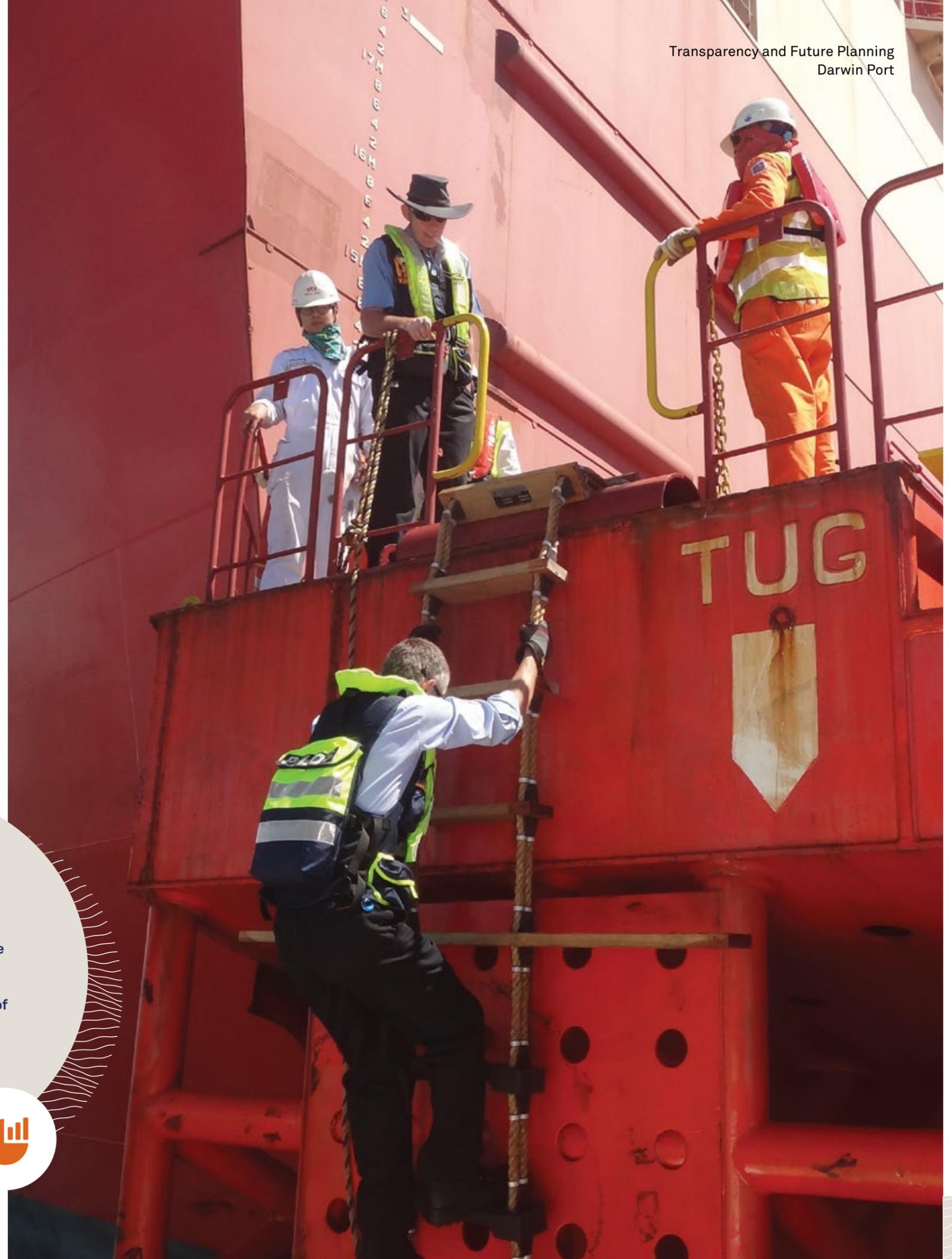
Removing 8500m³ of dredge material from berth pockets with no environmental triggers or stakeholder complaints. This success was due to the Port utilising its stakeholder structures including its Port Management Committee which is co-chaired by representatives from the Northern Territory Government and Landbridge creating a collaborative environment for monitoring and compliance.

Tiwi Islander Integration Melville Island

The Port of Melville is one of Australia's newest Ports and is part of the Tiwi Islands. The Port is another source of employment and furthers qualifications for the Tiwi people and an opportunity for a Port to include its community in all aspects of its business. From its inception, the Port aimed to be operated and managed by local Tiwi's. In partnership with the Tiwi Islands Training and Education Board and the Northern Territory Government, the Port established the 'Port Operations Support Officer' program. This program provides local Tiwi people with certifiable skills required by the Port but also transferable across industries.

Our Future Goals:

- 1 Promote and implement inclusion programs to drive diversity in the industry.
- 2 Support the achievement of white ribbon accreditation across all ports.





Corporate Citizenship

Supporting mental health programs

Geelong Port

Ocean Minds is a non-for-profit organisation that helps local young people who are experiencing personal difficulties. Using mentoring and surfing the program aims to help them feel more accepted, confident and comfortable in their lives. Geelong Port has provided Ocean Minds with equipment and a vehicle to enhance the program.

Environmental Internship

North Queensland Bulk Ports

Two students have been awarded inaugural Port Environment management internships as part of a long-term environmental monitoring and research program run by North Queensland Bulk Ports and James Cook University. The students will spend four weeks immersed in field activities spanning both industry and academia. Ports across Australia are offering these rare opportunities for students to gain real-world experience tackling marine coastal management challenges. As the only port authority in the world to operate three priority ports in a world heritage area, the internship is a rare opportunity for students to develop a unique skill set and crucial to securing the future sustainability of the reef and Ports.

Indigenous Empowerment and Partnership

Gladstone Ports Corporation

An Indigenous Land Use Agreement (ILUA) was executed on 20 March 2014, for a period of 35 years, between the First Nations Bailai, Gurang, Gooreng Gooreng, Taribelang Bunda People Aboriginal Corporation and GPC. This voluntary partnership has been established to ensure the responsible and respectful management of the lands and sea to deliver sustainable and mutual prosperity.

This covers a large footprint of GPC's operations across its three port precincts of the Port of Gladstone, Bundaberg and Rockhampton. The ILUA provides for consent for grants of tenure and approvals for port development, in return for benefit payments. The benefit payments are distributed through a number of funds and applications are encouraged that meet a pre-determined selection criteria including Education, Training, Capacity Building, Community Welfare, Cultural Awareness and Empowerment Outcomes. Since 2014, GPC has founded a long-term, collaborative and prosperous relationship with the Port Curtis Coral Coast Trust Limited, who in turn, manage the funds to support self-determination.

State-Wide Array Surveillance Program

Pilbara Ports Authority

Ports are continually monitoring their Port area for introduced Marine Pests arriving via ships ballast water. Original detection methods required organic samples to be sent around the world for examination and identification of potential pests. This process takes precious time and resources, increasing the window for any introduced pests to become established. Western Australian Ports and Authorities working with the Western Australian Government pioneered a new method which uses sample homogenisation and DNA extraction. This process has increased the speed of monitoring and also helped researchers identify new native marine species. The new method is now under consideration for a national approach to marine pest detection. The program received a Golden Gecko Award for environmental excellence.



Our Future Goals:

- 1 Implement programs that support indigenous employment and/or schooling.
- 2 Partner with institutions that are researching the sustainability of the environment in which our ports operate.

Shaping Port Sustainability

Our sector has to consolidate and grow over the long-term to service our growing nation which has already reached 25 million, well ahead of forecasts. In doing so, we acknowledge that we must create value for the business and local communities while sustaining our natural environment. **To do this successfully, we need to:**

1 Continue to raise awareness on the key freight enabling role Australia's Ports play in our society.

2 Analyse the factors that may affect the resilience of our industry in supporting Australia.

3 Enable community engagement in planning for future sustainable port activities.

4 Recognise the key community values that are to be incorporated in our objectives, strategy, and operations.

5 Undertake effective commercial operations that incorporate positive societal values while future-proofing our industry for factors that will affect its resilience.



Always improving

The World Ports Sustainability Program provides Australia's Ports with an opportunity to undertake an examination of its planning and operations against a global benchmark. Ports Australia supports in-depth analysis across ports to examine:

- What is sustainability to our Ports and can we clearly articulate it for our environment, people, the community and key stakeholders?
- Are intergenerational issues addressed in our planning for a sustainable future?
- Has a full materiality assessment been undertaken to identify our key drivers, impacting factors and gaps and how do we utilize this knowledge against the UN SDGs framework?
- How does our existing business model align with the sustainable outcomes sought?
- Build meaningful partnerships that strengthen the Port sector and our ability to meet sustainability challenges.
- What actions are to be undertaken to improve our workforce's understanding and engagement on sustainability planning and operations that support this approach?
- How can the UN SDGs be integrated into strategy, planning, reporting and stakeholder engagement?
- How do we define sustainability performance and can we integrate our performance metrics with sustainability metrics through tools such as the Global Reporting Initiative?



Ports Australia

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