

Vision 2060

PortBris 2060 Vision
May 2025



Port of Brisbane Pty Ltd acknowledges the Traditional Custodians of the lands, seas and waters it operates on. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.



GALONPIN
Quandamookajara

'Ngalongpin is on Quandamooka Country, where the Port of Brisbane is situated. This painting visually analyses the mapping of the three clan groups of Quandamooka Country and highlights their Ancestral pathways that flow from the mouth of Maiwar (Brisbane River) where the Port of Brisbane stands. The circular and lineal design bears traces of the journey of Ancestors that are enacted in Quandamooka storylines.

The symbolism of the lines is rooted in Ngalongpin and Maiwar and is a statement of Quandamooka survivance that is evident through the visibility of the maguydan (story) that connects to jara (land) and tabiyil (water)'.
Shara Delaney

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Published May 2025

FOREWORD

A message from the Port of Brisbane

Since the 1850s, there has been one constant that has facilitated, and in some cases driven, the growth of Brisbane and Queensland: the Port of Brisbane.

During its first 150-odd years along the riverbanks of Southbank, Newstead, Teneriffe and Hamilton, through to its current home at Fisherman Islands, the Port of Brisbane has been Queensland's trading link to the world. The imports required to build a city and then propel its growth into a modern powerhouse, not to mention the exports that helped fund it, have been made possible by the investment in the port that shares the city's name.

And so it is that, as our region looks ambitiously to its future, the Port of Brisbane stands ready to continue its critical role to lead the way to enable the growth.

PortBris 2060 is our effort to look beyond today, beyond tomorrow and towards a future that is equal parts exciting and uncertain. It acknowledges that as this region has grown, so has the port. And as the region continues to grow, so too will the port need to grow.

Looking into the future uncovers questions like: what will be the impact of technology and decarbonisation and how do we harness the opportunities that will come with them; how can this region develop a low-cost, highly productive, world-class supply chain; and how can the port maintain its position as a trusted, responsible member of the Queensland community?

And if those questions aren't challenging enough, how about: how will geopolitics impact global trade; how often will severe weather events occur and how do we minimise disruption to operations; how can we protect the surrounding environment that we're so privileged to operate within; and how will government policy help or hinder the port's evolution?

Long-term forecasting is inherently difficult. We cannot possibly answer every question with exacting detail. But, that's not the point of this exercise.

PortBris 2060 is about engaging the port's stakeholder ecosystem - from our customers, to government, to community partners and many more - and asking them to buy into the future. It's about producing a vision that we can all work towards; a 'light on the hill' that guides how this port and the businesses within it could evolve into the future and support the regional growth we all know is coming.

It calls for integrated, dedicated road and rail freight networks outside the port gate to protect the liveability of this region. It describes the need for a high capacity, renewable energy network. It outlines the shift towards automation, data-sharing and technology to drive productivity and enhance safety. It calls for a deeper shipping channel to cater for the larger vessels of the future and more cruise infrastructure to enhance tourism in this state.

And so much more.

Our commitment to all our partners is that this document isn't the end of the process but the start of a conversation and journey together. We will continue to work closely with you, implementing actions on the path towards 2060, in line with our vision statement - Port of Brisbane: Here for the Future.



Neil Stephens
Chief Executive Officer
Port of Brisbane



Brendan Connell
Executive General
Manager Sustainability and
Corporate Relations
Port of Brisbane

It's important to note that this document is a 'vision'; it does not represent financial and non-financial commitments or otherwise to any specific course of action.

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About the Port of Brisbane

The Port of Brisbane is one of the largest and most diverse ports in Australia, facilitating access to global import and export markets for trade communities along the east coast of Australia.

Situated at the mouth of the Brisbane River, the Port of Brisbane is the trade gateway to South East Queensland (SEQ) and is responsible for enabling the prosperity of the region in all its activities. It is also located in an area of high environmental and cultural significance, on the edge of Moreton Bay, bordering the Ramsar Wetlands and the Moreton Bay Marine Park.

VISION

To be Australia's premier port and logistics hub. Here for the future.

PURPOSE

To provide the infrastructure to grow trade sustainably; driving prosperity for all.

VALUES

-  **Safety**
We care for each other.
-  **Innovation**
We look for new solutions.
-  **Teamwork**
We value collaboration.
-  **Integrity**
We do the right thing.
-  **Accountability**
Empowerment with responsibility.

About PortBris 2060

The journey so far

The PortBris 2060 Vision (also referred to as 'Vision 2060') was developed using collaborative strategic foresight and scenario planning methodologies, combining both creativity and rigour to determine the optimal path forward. It draws on rich insights, unique perspectives and key priorities that emerged through extensive consultation with port stakeholders and subject matter experts. By looking to our global counterparts and drawing from best practices, Vision 2060 is a reflection of current research, emerging trends, policy reform and innovations across adjacent industries, which are driving change for the future.

A living roadmap for the future

Whilst Vision 2060 is based on the most current research and best practices of today, it is not static nor fixed and is designed to be updated over time as new developments, research and changes come into view. In the same sense, it should not be taken as a precise 'plan' or set of actions. Nor does it represent any financial or non-financial commitments from PBPL, or replace our existing Masterplan process. Instead, it is designed to provoke ideas and dialogue that will be essential to ensuring future preparedness.



Who we are

Port of Brisbane Pty Ltd

The Port is managed by Port of Brisbane Pty Ltd (PBPL) under 99-year leases from the Queensland Government. PBPL is part of the APH Group, comprising four of the world's largest and most experienced infrastructure investors:

- QIC Private Capital Pty Ltd on behalf of its managed funds and investors
- IFM Investors
- Caisse de dépôt et placement du Québec
- Platinum Tawreed Investments A 2010 RSC Limited (a wholly-owned subsidiary of the Abu Dhabi Investment Authority).

PBPL operations and services

PBPL undertakes a broad range of operations and services to ensure that cargo, commodities and tourists can move safely and efficiently in and out of the Port's footprint.

- **Port services:** Harbour and wharf services, operation of the Brisbane Multimodal Terminal (BMT), hydrographic surveying, marine and dredging operations, 24/7 port security, operation of the Port of Brisbane Maritime Security Identity Card Centre and operation of the Visitors Centre and café.
- **Property and land development and infrastructure:** Delivery and maintenance of Port infrastructure (wharf, land, roads, warehouses, utilities, future port expansions), facilitation of development approvals and facilities management.
- **Brisbane International Cruise Terminal (BICT):** Provision of services including security and facilities management, and maintenance of a major public tourism facility.

Port of Brisbane – where we've been



1850s

At this time, the Port was originally located in the CBD at 'South Bank'. As larger vessels became more common, the Port was moved downstream to the 'City Reach', Teneriffe, Newstead and eventually Hamilton.



1970

With the uptake of containerisation in the 1960s and 70s, ships became larger still and the strategic decision was taken to develop a deep-water port at the mouth of the river. In 1976, the Port of Brisbane Authority was established to deliver this strategic action.



1994

Between 1994 and 2010, the Port of Brisbane Corporation oversaw a period of port history characterised by substantial capital investment, rapid property development, record trade growth, the expansion of Fisherman Islands (including a 230ha reclamation project for dredged material placement) and the relocation of strategic industries from up-river estates to the river mouth.



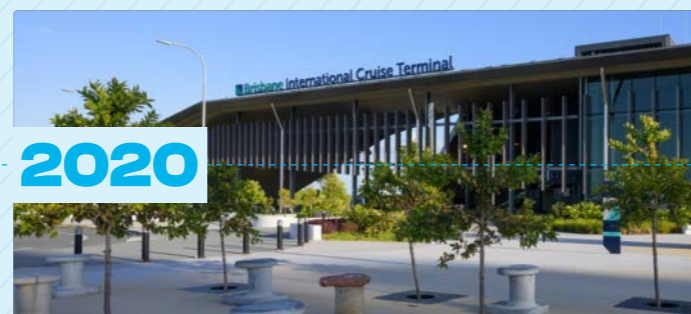
2010

This period of rapid development was catalysed further by the Port's 2010 privatisation and the establishment of the Port of Brisbane Pty Ltd (PBPL) to manage port development via a 99-year lease from the Queensland Government.



2018

Port expansion continued, with reclamation still providing future growth opportunity. The Port Drive Upgrade was completed, as part of a \$110 million project to make port roads safer and more efficient. Investment in property development accelerated to meet growing customer demand and increasing freight volumes.



2020

2020 saw the completion of the Brisbane International Cruise Terminal at Pinkenba, the first dedicated cruise facility in South East Queensland able to accommodate mega cruise ships.

PBPL acknowledges and celebrates that the area on which the Port of Brisbane and its customers now operate was inhabited by Traditional Custodians of the local lands and waters for tens of thousands of years before European settlement. PBPL's Reconciliation Action Plan is part of our organisation's reconciliation journey, as we continue to seek

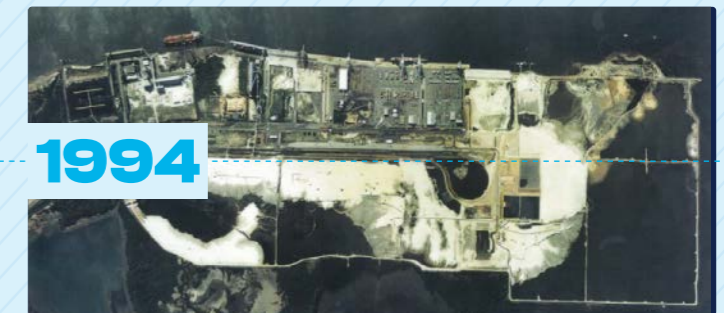
to deepen our knowledge and understanding of Aboriginal and Torres Strait Islander cultures.

The history of European settlement in Brisbane is directly tied to the development of the city's port.



1981

Following reclamation activities and infrastructure investment, the Port of Brisbane received its first container ship at Fisherman Islands in 1981.



1994

The Authority became a government-owned corporation in July 1994, with a strong emphasis on reclamation and development at Fisherman Islands.



2013

Since 2013, Port of Brisbane's Community Grant Program has awarded over \$1 million to community focused organisations across Bayside and the Regional Area.



2017

PBPL Launched Target Zero, outlining key initiatives to achieve zero net emissions (scope 1 and 2 achieved in 2024), zero PBPL-generated waste to landfill and net positive water (using more rainwater or recycled water than potable water) by 2030.

What the future holds for the Port of Brisbane

The Port of Brisbane has evolved significantly in the last forty years with its transformation from a river port to a world-class deep-water facility. As we look out over the next four decades, the Port of Brisbane will continue to play a critical role in Queensland's economic and social future, maximising opportunities for sustainable growth and driving prosperity for all.

Building on a strong history of innovation, PBPL is looking out on the horizon to better understand the trade, social and energy needs of the future. Together with its customers, PBPL is driven by a commitment to increasing the efficiency and resilience of the port community.

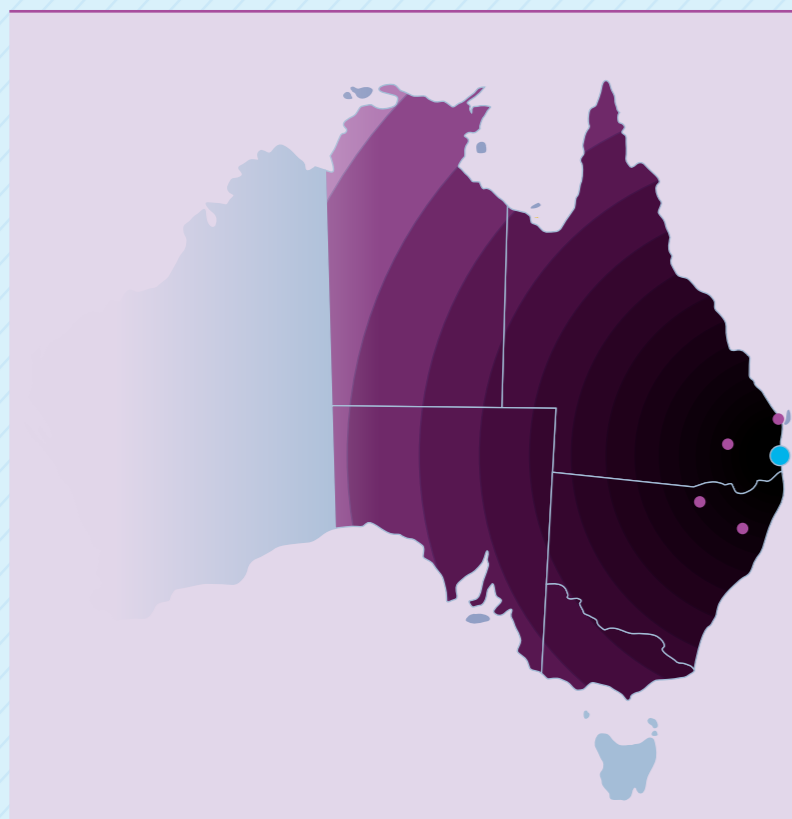
Vision 2060 charts a course for the future by outlining key opportunities for growth, partnership and potential investment, which leverage major advancements in technology. Whilst well-researched, this vision must also allow for adaptability and responsiveness to a multitude of dynamic developments, including global supply chain governance.

Vision 2060 does not replace our existing vision to be Australia's premier port and logistics hub, nor does it replace our statutory master plan or land use plans. Rather, it strengthens our ability to deliver on this vision by navigating the complexity of an evolving landscape with bold ambition and rigour.

Port of Brisbane – moving freight, serving Queensland

The Port of Brisbane is a vital trade gateway and strategic enabler of Queensland’s economy. As the state’s largest container and multi-cargo port, it connects the products of regional industries and metropolitan manufacturers to global markets. With exports ranging from outback minerals and Darling Downs grain to South East Queensland’s manufactured goods, and imports including fuel, electronic goods, medical supplies and furniture, the Port anchors a multimodal web of trade stretching across the state’s vast geography. This network keeps supermarkets stocked, exporters competitive and industries humming.

But the system is not without its challenges and if Queensland is to keep pace with rising trade volumes and population growth, a focus on strengthening the freight network is needed to ensure greater connectivity and future readiness. To stay competitive and resilient, Queensland must invest in strengthening all aspects of its freight network. That means supercharging rail capacity, upgrading dedicated freight lanes and autonomous corridors as part of a connected system and ensuring port infrastructure is equipped to handle larger ships and bigger volumes. The Port of Brisbane’s role is central to the current functioning of the freight network and will become even more vital as trade volumes increase and supply chains evolve.



The Port of Brisbane services a broad hinterland

Brisbane and South East Queensland (primary unpacking/packing zone)

Regional Queensland:

- Containerised freight to all Queensland centres and towns.
- Agricultural zones in Darling Downs, Wide Bay and Central Queensland.

Interstate:

- Northern NSW (e.g. Moree, Casino, Narrabri) for grain, cotton and meat.
- Northern Territory vehicles and agricultural products.
- Smaller volumes to/from Victoria and South Australia.

Origin/ Destinations – A closer look*

Export container origins:

- **20%** of export containers are packed in the Port and greater port precinct.
- **28%** are packed in other Brisbane suburbs.
- **29%** originate in regional Queensland.
- Less than **5%** originate interstate.

Imports container destinations:

- **95%** of import containers are unpacked within 100km of the Port.
- **26%** are unpacked in the Port or contiguous industrial suburbs such as Lytton, Hemmant, Murarrie.
- **55%** are distributed to destinations across Brisbane.
- **42%** are distributed to adjacent regions.
- **2%** are distributed further across regional Queensland.
- **1%** are transported interstate, mainly Northern NSW.

*PORT OF BRISBANE ORIGIN DESTINATION STUDY - SUMMARY REPORT 2023. PREPARED BY GHD IN ASSOCIATION WITH THE CONTAINER TRADE ALLIANCE AUSTRALIA (CTAA), 2023.

Road



CURRENT STATE

- Approx. 5 million truck movements per year.
- Approximately 99% of the import and export containers (full and empty) are transported to and from the Port by road transport.
- Highly efficient road network but pinch points exist, exacerbated by freight volume growth and commuter congestion.

FUTURE CONSIDERATIONS

- Over 15 million truck movements by 2060.
- The road network must evolve to mitigate the risks of increased truck volumes and congestion, particularly on already strained corridors.
- Potential for almost 5 million less truck movements if 30% rail modal share achieved.

Rail



CURRENT STATE

- Just 1% of containerised freight travels via rail (25-30% global standard).
- Rail share is 100% export, with the network inefficient for import distribution.
- The operational efficiency of the existing rail line is hampered by shared passenger and freight use, capacity constraints and limited intermodal connectivity to major regional producers.

FUTURE CONSIDERATIONS

- Dedicated freight rail to complement road transport and alleviate congestion, strengthening efficient and reliable access for inland and regional producers.
- Inland Rail linkage directly to the Port, supporting seamless long-haul rail connections.
- Distributed network of rail intermodal hubs.

Sea



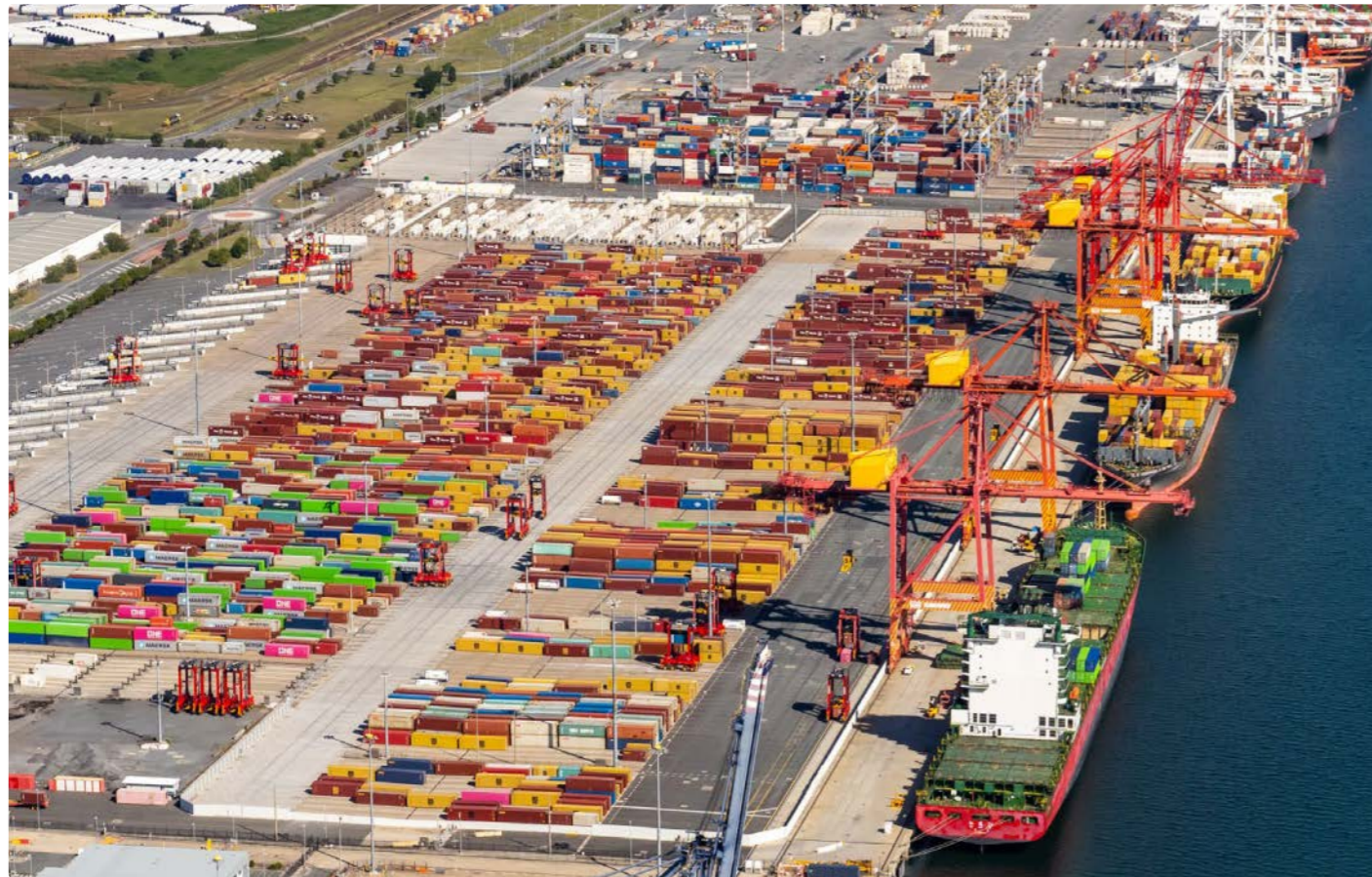
CURRENT STATE

- Channel depth at 15m.
- The Port of Brisbane handles most of the state's containerised seaborne freight, over 1.6 million TEUs annually (2024). This figure is anticipated to more than triple by 2060.

FUTURE CONSIDERATIONS

- Next generation vessels require 17.3m channel depth.
- PBPL's Channel Enhancement Project is designed to increase capacity.
- Port infrastructure should also support evolving vessel fuel types, while remaining adaptive to national regulations and technological shifts.

Executive Summary



The Port of Brisbane has evolved to become one of Australia's premier port and logistics hubs. To guide our continued growth and evolution, Vision 2060 sets out potential pathways for the next four decades. To our customers and communities, our vision is to ensure that the Port maintains and strengthens its role as a responsible environmental steward, as Queensland's economic enabler and as a regional community leader.

We believe that the Port of the future will be shaped by anticipated national population growth and subsequent trade flows associated with commodity shifts and urbanisation. Forecasts suggest that by 2060, Queensland will be home to an estimated 8.3 million people, with this increase driven by continued international and inter-state migration.

As a port that has historically evolved alongside its city, the Port of 2060 will be no different. Population growth is anticipated to drive an increase in import volumes, with around 5 million containers and nearly 20 million tonnes of bulk commodities anticipated to pass through the Port annually by 2060.

This substantial increase in the freight task will likely lead to increased demands in freight movement, while global shipping dynamics will lead to larger vessels sailing within Australian waters.

To meet this challenge, we see a future where the supply chain is seamlessly connected; both physically and digitally. Maritime vessels, landside logistics operators and port stakeholders will see benefits in proactively sharing data, providing live updates on freight movements and maximising supply chain efficiency. On-port landside cargo movements will be autonomous and emissions-free, with worker interaction evolving to focus on innovation, maintenance and operational supervision. On-port efficiencies will extend into the Port's hinterland, with seamless, dedicated road and rail freight connections to strategically located inland ports.

The Port must keep pace with the increased economic, environmental and community expectations that come with this growth path.

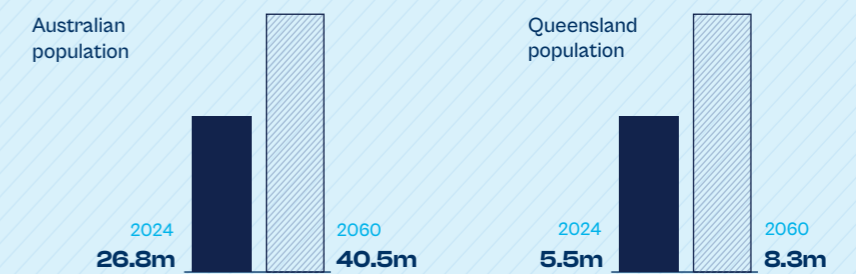
Meeting this growth also comes with a commitment from PBPL to continue our investment and commitment to sustainability. PBPL will become a generator and supplier of renewable energy and facilitator of alternative fuels for shipping, utilising technology to help port stakeholders optimise energy use and maximise operational efficiency across the port. High-density and/or vertical solutions will support responsible development on Fisherman Islands, whilst land reclamation over time will allow for future port expansion.

PBPL also recognises its legacy and positioning, with surrounding areas of environmental and cultural significance. As such, our growth will be based on a commitment to ensuring that the marine environment surrounding the Port is well maintained and nurtured. The Port will strengthen its role in responding to the emerging needs of neighbouring communities and lead the way in shaping a resilient maritime and logistics workforce.

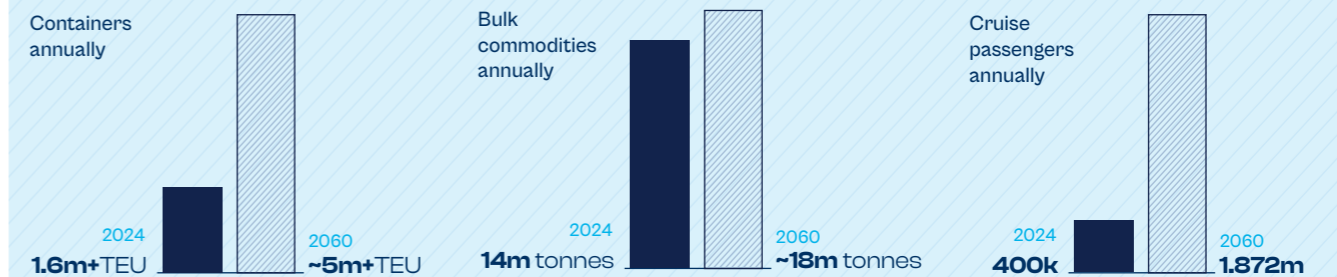
A snapshot of the future: From 2024 to 2060

SOURCE: FTI CONSULTING ECONOMIC ANALYSIS AND FORECAST
FORECAST PRODUCED SOLELY FOR PORTBRIS 2060 AND NO OTHER PURPOSE.

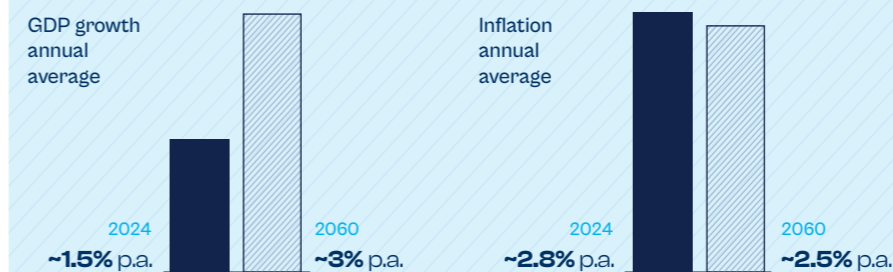
Population statistics



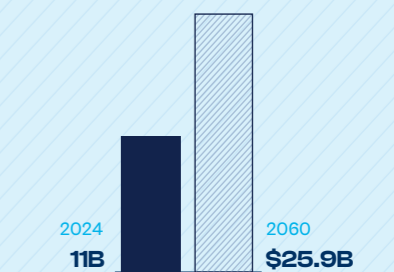
Trade and passenger volumes



Macroeconomic assumptions



Total economic contribution*



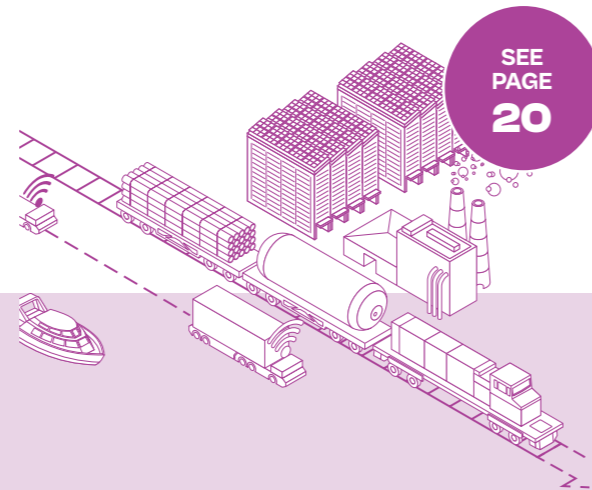
Trade summary

- Total container movements up more than 300% on 2024 volumes
- Significant growth in 'wet bulk' as green fuel exports and other biomass renewables grow
- Decline of coal exports expected to be replaced by more sustainable and renewable bulk commodities
- 2.4 million less truck movements on regional roads per year if freight had a dedicated rail connection to the Port of Brisbane by 2035*

*DELOITTE ACCESS ECONOMICS (DAE) REPORT, 'PORT OF BRISBANE'S ECONOMIC CONTRIBUTION', 2025 <HTTPS://WWW.PORTBRIS.COM.AU/MAJOR-PROJECTS/PORT-OF-BRISBANE-S-ECONOMIC-CONTRIBUTION>

#DELOITTE ACCESS ECONOMICS (DAE) REPORT - ESTABLISHING THE NEED FOR THE LAST MILE. MAKING THE CASE FOR A DEDICATED FREIGHT RAIL LINK FROM ACACIA RIDGE TO THE PORT OF BRISBANE', 2019 <HTTPS://WWW.PORTBRIS.COM.AU/MAJOR-PROJECTS/DEDICATED-RAIL-CONNECTIVITY>

Driven by seamless connectivity



The efficient and emissions-free movement of freight

The Port of Brisbane connects to inland ports and the national freight network via dedicated rail access to Inland Rail and dedicated road corridors to national highways.

Freight movement is facilitated by autonomous and emissions-free vehicles, with freight-only precincts utilising innovative technologies and predictive scheduling to maximise safety and productivity.

Expanded cruise terminal capacity provides improved transport connectivity.

PBPL partners with cruise lines to support the significant work already underway in decarbonising and enabling sustainable tourism.

Channel enhancement is a key enabler of growth, facilitating larger vessels and higher throughput.

Green corridors provide efficient shipping routes between ports.

Powered by clean energy



Embracing and facilitating the shift towards a 'green supply chain'

New infrastructure enables the Port to become a clean energy hub, generating and providing energy security, resilience and sufficiency for port operations. This supports the overall decarbonisation of the supply chain in a coordinated effort to achieve net-zero across the port community.

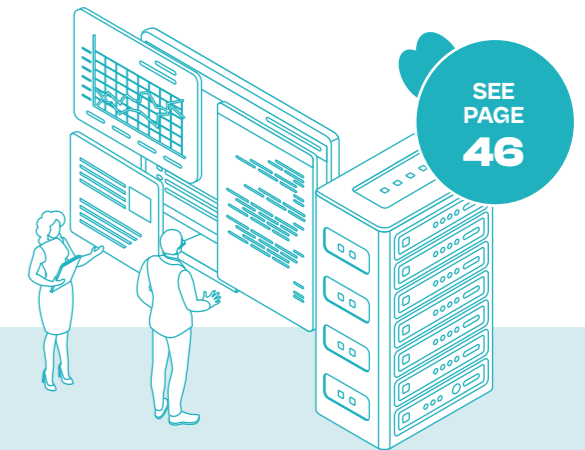
Port-wide electrification and smart metering enables energy flow optimisation.

The Port is a key enabler of emission-free connectivity by providing sustainable power for all vehicles and vessels, including EV charging, shore power and refuelling facilities.

As an energy producer, the Port seeks to collectively invest to limit the burden on the regional power network, freeing up network capacity for the rest of the Australian Energy Market.

Waste-to-energy and circular economy opportunities help to reduce waste to landfill.

Designed for future generations



Sustainably serving Queensland for decades to come

The protection and stewardship of Moreton Bay and surrounding natural ecosystems is a key priority. This is supported by circular solutions as well as continued environmental preservation and enhancement.

The Port of Brisbane remains an active, ever-present member of the local and regional community.

Land use at the Port is managed efficiently through measured land planning and development, vertical storage solutions and a modular built environment, with critical emphasis on long-term resilience and adaptability.

There is a workforce evolution, where high-value skills, bridging digital and physical domains, will be of critical value to the port's operations.

Future plans and development are driven by sustainable built form outcomes and reduced levels of embodied carbon.

PortBris 2060 Vision

Our vision details three distinct horizons that characterise the future of the Port of Brisbane, capturing both what it could look like and how it could work. Each horizon, organised as chapters, provides an exploration of the key priorities and an immersion into the envisioned future context.

The Future Vision

Where horizons meet

In 2060, we envisage the Port of Brisbane being at the centre of Queensland's world-class supply chain. It will efficiently, productively and sustainably enhance our region's connection to global markets, utilising physical and digital infrastructure to facilitate Queensland's growth. In a future environment defined by the impacts of population growth, climate change, greater social and

environmental responsibility and an increasingly uncertain geopolitical landscape, the port will be resilient and responsible by design, prioritising partnerships, data collaboration and increased engagement with the port community.

Vision 2060 serves as a blueprint to achieving this desired future, establishing the Port as a place 'where horizons meet.' Our intention in generating this vision - in close collaboration with our customers, government stakeholders and community representatives - is to guide decision-making inside and outside the port precinct in the best interests of the Queensland community.

A future defined by efficiency and prosperity will be enabled by mobilising the sustainability priorities of today.

The entire state of Queensland benefits from a Port of Brisbane that functions effectively and plans for the future. To achieve this mission, collaboration and coordination are required within the port ecosystem and across governments of all levels. Preparing for the future is not a straightforward path, in the same way that managing our region's growth trajectory will be challenging and complex. It requires bold, collaborative leadership to create an environment where people, organisations and ideas can come together for decades to come.

The Port of Brisbane invites all stakeholders - industries, governments, communities and individuals - to join us in this transformative journey. The future isn't just coming - it's already here. Let's shape it together.

We are building a future where people and the planet prosper together, where innovation drives progress and prosperity and where the Port of Brisbane stands as a global exemplar of what's possible when horizons meet.

Navigating the challenges and opportunities of the future

Looking out to 2060

Significant developments and key trends are already defining the trajectory of smart ports in an evolving maritime landscape. Our research highlights five primary Strategic Drivers of Change, which underpin the need for foresight and planning, as documented in our 'Beyond Tomorrow Discussion Paper'. These drivers (detailed below) help to characterise the anticipated conditions of the future context - the backdrop for Vision 2060.

Charting the course

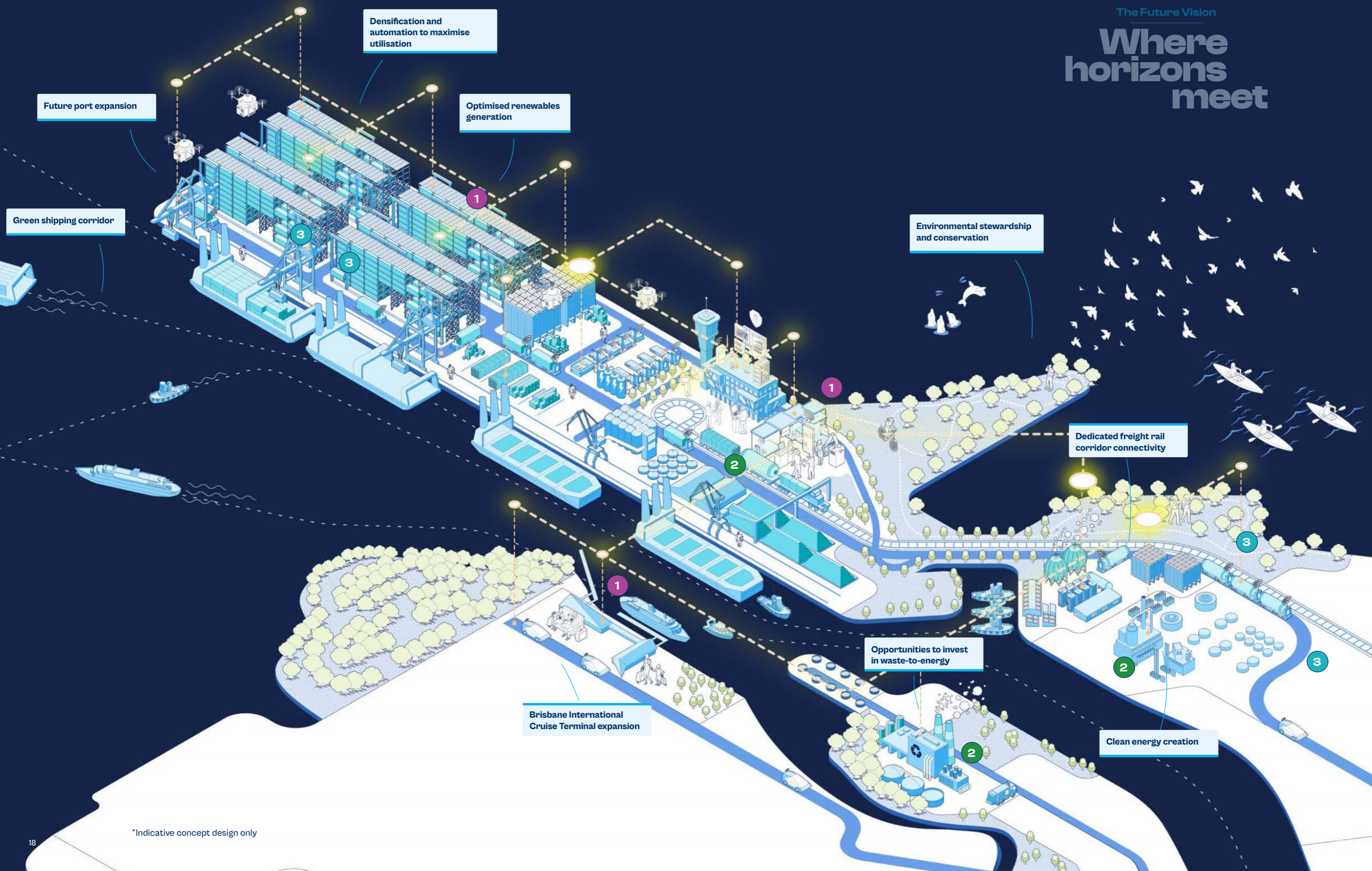
Vision 2060 will inform the strategic direction of PBPL, helping to guide our future planning and investment. Across each horizon of the document, key concepts have been plotted along an approximate timeline - Today, Tomorrow, Future - indicating how these initiatives may develop over time. Over the next four decades, careful consideration and planning will ensure the road ahead is collaborative and growth-focused.

	Sustainability Shift Transitioning towards a more responsible and transparent future.	Maritime industry stakeholders will need to collaborate and take proactive steps to mitigate the impacts of climate change together by adopting new clean energy solutions and embracing responsible business practices. In the move towards net-zero, it is incredibly important that we balance the changing economic, environmental and social needs of stakeholders.
	Capacity Shift Catering for investment in larger and more efficient assets.	This shift is being driven by a range of factors, including industry consolidation, increased competition and the pursuit of economies of scale. Investment decisions and planning must accommodate larger vessels and port facilities, higher mass and scale of vehicles and more complex logistics systems, while integrating the required technological advancements that maximise efficiency.
	Digital Shift Enabling digital and technological transformation.	The transportation and logistics industry will be transformed by technological advancements in mobility, AI, robotics, automation and cybersecurity. This digital shift is expected to significantly disrupt traditional business models, creating new opportunities and challenges to address through increased collaboration and partnership.
	Adaptability Shift Building greater resilience and diversification for future uncertainties.	The increasing volatility, uncertainty, complexity and ambiguity in the world will see the need for organisations to shift towards prioritising resilience on multiple levels. Greater adaptability will be required to allow for dynamic decision-making in response to a range of disruptive forces and conditions.
	Growth Shift Population growth, urbanisation and freight task.	The global population is expected to reach over 10 billion by 2060*, with most of this growth occurring in urban areas. This will require a focus on the development of sustainable and resilient supply chains and consumer-centric logistics systems that can adapt to changing market conditions and evolving consumer preferences.

*SOURCE: UNITED NATIONS, WORLD POPULATION PROSPECTS 2024.

The Future Vision

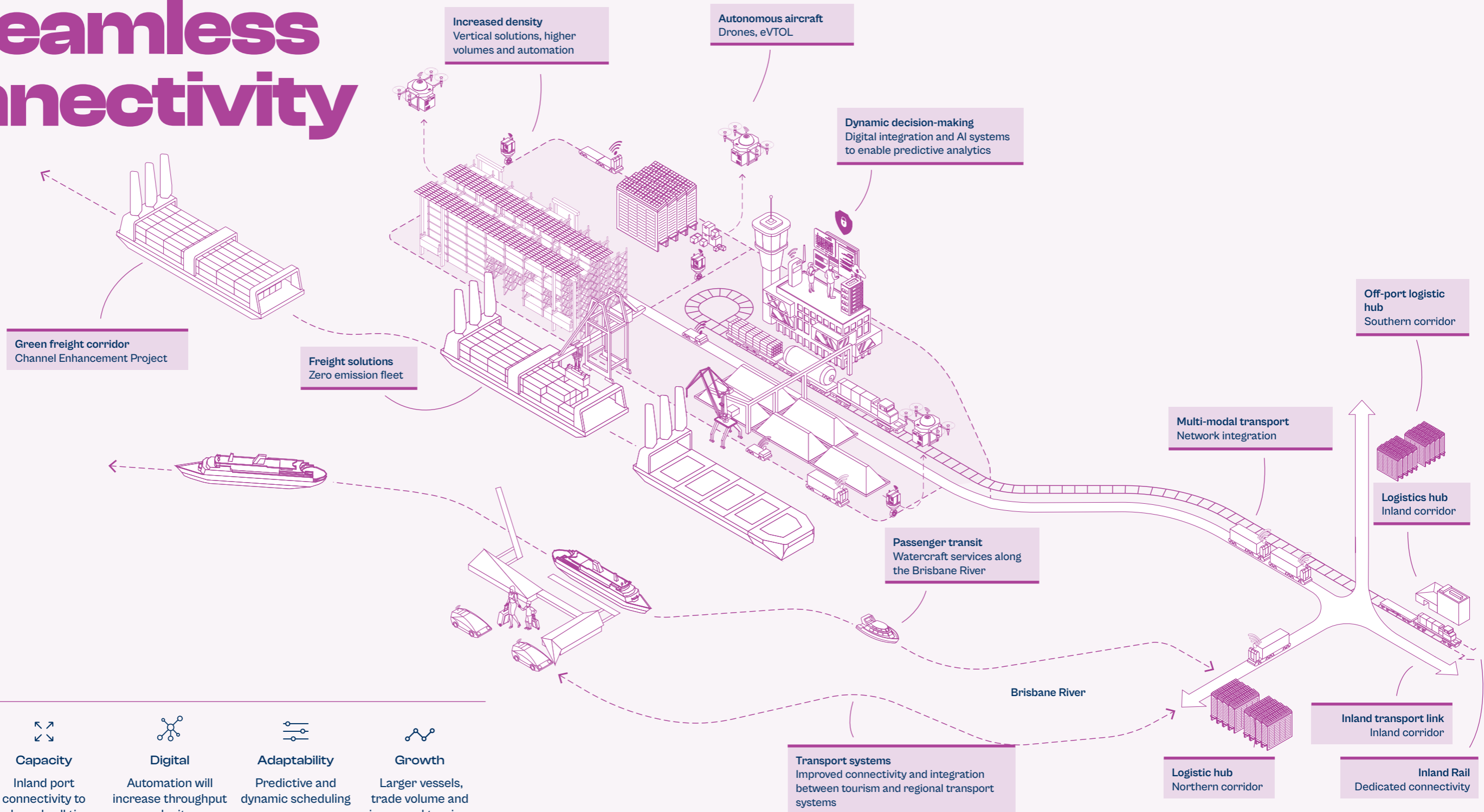
Where horizons meet








*Indicative concept design only

Horizon 1

Driven by seamless connectivity



DRIVERS OF CHANGE

- 
Sustainability
 Shore power, EV charging and future fuels
- 
Capacity
 Inland port connectivity to reduce dwell time
- 
Digital
 Automation will increase throughput velocity
- 
Adaptability
 Predictive and dynamic scheduling
- 
Growth
 Larger vessels, trade volume and increased tourism

1 | DRIVEN BY SEAMLESS CONNECTIVITY

Bridging physical and digital networks to facilitate supply chain efficiencies

We believe that seamless connectivity is directly linked to achieving future sustainability objectives, boosting productivity for our customers and enhancing regional connection to accommodate expected population growth and an increasing freight task. Over time, this role will strengthen as dedicated road and rail infrastructure connects Brisbane to the hinterland, extending the Queensland logistics network to support modal shifts, intermodal hubs and flexible spatial solutions. Digital systems will drive port-wide coordination, including higher density spatial solutions, and widespread automation will enable greater productivity and interoperability. By enabling data collaboration across key stakeholders, the Port will play a critical role in supporting overall supply chain efficiency and transparency.

The Port is a central hub for the flow of freight, passengers and data.

A GLIMPSE INTO THE FUTURE VISION

In 2060, South East Queensland benefits from a Port of Brisbane that has dedicated road and rail access to national freight networks and is connected to the world by a straighter, deeper and wider shipping channel.

Dedicated freight rail access frees up additional capacity on Brisbane's passenger network, supporting the public transport needs of a growing region, and connects to Inland Rail and the national rail network via inland ports at Ebenezer and the Darling Downs. A dedicated

road corridor for autonomous and zero emissions heavy vehicles enables the movement of freight from Fisherman Islands to distribution hubs, easing congestion and reducing maintenance on major arterial roads. Movements within the port are largely autonomous and conducted in freight-only zones, improving safety for workers. These movements are digitally captured, improving supply chain transparency and enabling the port's role in border security and container inspection.

The Brisbane International Cruise Terminal cements its place as the new national home of the cruise industry, with additional wharf and terminal capacity, new and safe road access for commuters, efficient public transport and the provision of renewable energy for shore power.

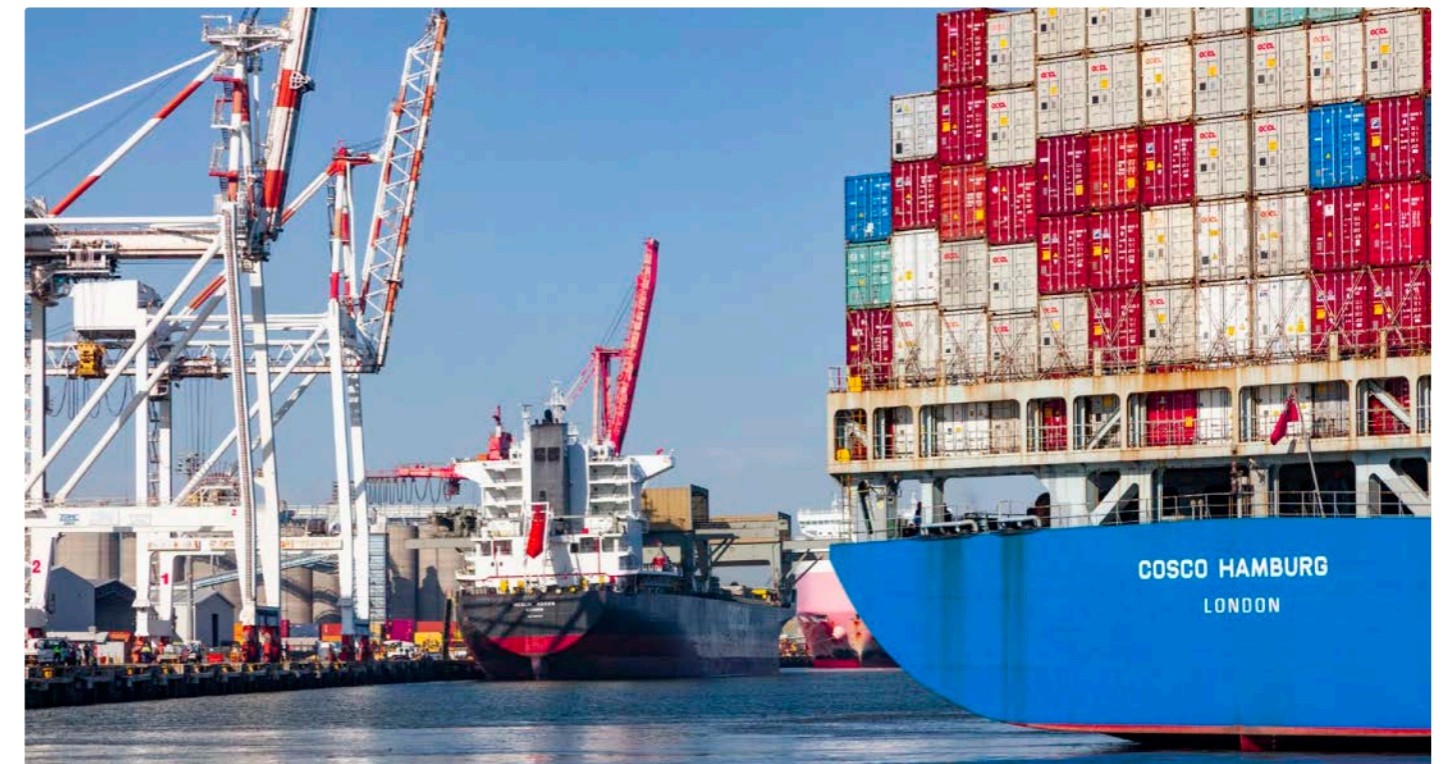
Strengthening regional and global connectivity

With strong population growth across SEQ driving an increased freight demand, careful planning will be essential to ensure Queensland maximises the benefits of trade growth whilst managing the impacts associated with increased transport demand on the broader community and environment.

This increased freight task will also be driven by international demand for natural resources and agricultural products, new technologies and global sourcing, seeing a significant increase in the volume of containers passing through the Port. As a critical gateway for both regional and global connectivity, the future Port of Brisbane will support the efficient movement of cargo and cruise passengers through key upgrades to both the transport and logistics networks.

This will ensure that regional areas such as Darling Downs, Toowoomba and Oakey are well connected and places like Mackay, Rockhampton and Townsville in the North QLD corridor can benefit from future growth.

As the freight network evolves to meet growing demand – driven by population growth, larger vessels, and increased container volumes – coordinated investment and infrastructure delivery will be essential. Accommodating this growth, particularly through improved inland connectivity and logistics capacity, will require integrated, cross-agency planning to ensure the benefits of trade are maximised while managing impacts on communities and the environment.



1 | DRIVEN BY SEAMLESS CONNECTIVITY

Integration with SEQ freight and logistics networks

By 2060, an improved inland transport and logistics network will expand trade reach and strengthen regional connectivity, from Fisherman Islands to the hinterland, whilst supporting decarbonisation and sustainability outcomes.

Investment in rail infrastructure, such as a dedicated freight rail corridor between the Port of Brisbane and Ebenezer, will alleviate road congestion and reduce dependency on road transport, which currently accounts for over 98% of all container freight transportation. This will enhance the opportunity for an inland port distributed network of intermodal logistics hubs, which operate as 'satellite' components of the terminal system. Specifically, the implementation of a dedicated freight rail corridor will see the port integrate with the Ebenezer Intermodal Terminal, to support the ShapingSEQ Regional Plan. This will allow for high velocity container movement and provide significant benefits to efficiency and productivity, leveraging the development of the Ebenezer Regional Industrial Area and out into regional Queensland. Beyond the significant off-port investment, this future vision would require investment and upgrades to existing rail infrastructure within the Port including expansion of the existing rail loop at the BMT, where land is already reserved for this purpose.

WHAT WE HEARD

“The focus should be improving efficiency to reduce overall logistics costs... and the goal should be to bring cargo quicker and closer to where it’s ultimately going.”
 – PoB shipping line customer



The uptake of automation across the maritime and transportation sectors will see public infrastructure and regulation evolve to accommodate this technological advancement. Designated autonomous corridors on the major metropolitan arterial road network could support automation with remote supervision (Level 4 Automation – see page 28), allowing for controlled movements between the Port and metropolitan import and export facilities. This shift will address growing labour shortages across trucking and maritime industries and require upskilling and workforce development to support remote operations and supervision through the use of virtual technologies.

The Port of Brisbane is also a prominent transit point for cruise passengers, providing access to global destinations and local connections. By 2060, the growing number of passengers choosing to travel by cruise will drive significant upgrades to the Brisbane International Cruise Terminal, including additional berth capacity, improved amenities and efficient passenger transfers, enabling more people to move through the terminal with ease. With its close proximity to Brisbane International Airport, the Port of the future could function as a unique transport hub, with integrated services and multimodal solutions that enhance connectivity for both passengers and cargo, supporting exporters and importers alike.

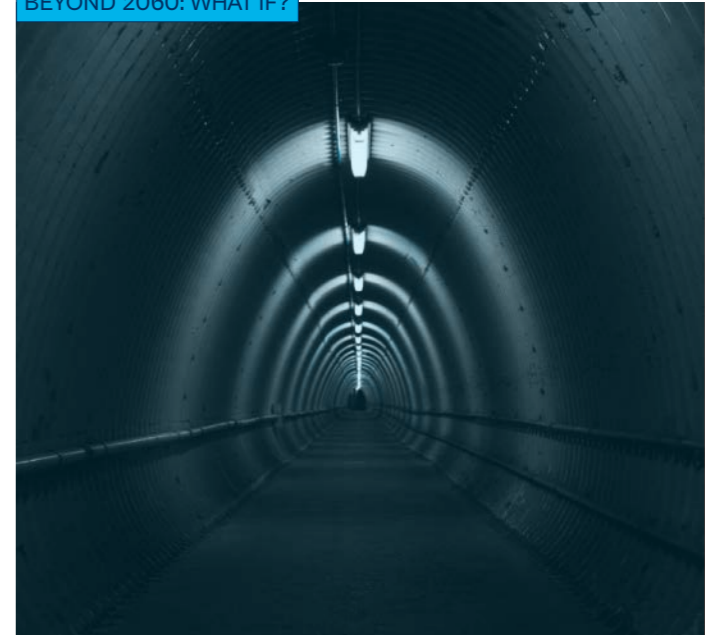
A DAE analysis suggests that a dedicated rail connection between the Port and Inland Rail, with 30% modal share in 2035, could see 2.4 million less truck movements on the road per year, helping reduce carbon emissions, easing congestion on highways and creating additional jobs.*

*DELOITTE ACCESS ECONOMICS (DAE) REPORT, 'ESTABLISHING THE NEED FOR THE LAST MILE. MAKING THE CASE FOR A DEDICATED FREIGHT RAIL LINK FROM ACACIA RIDGE TO THE PORT OF BRISBANE', 2019 <HTTPS://WWW.PORTBRIS.COM.AU/MAJOR-PROJECTS/PORT-OF-BRISBANE-S-ECONOMIC-CONTRIBUTION>

WHAT WE HEARD

“In 2060, safety and movement of freight is highly important. It’s about getting the balance right between road and rail, and moving freight on the right mode.”
 – Government representative

BEYOND 2060: WHAT IF?



Underground logistics

Conveyor for convenience

Trends including personalised consumption and 'on-demand everything' are set to increase shipping volumes and frequency by 2060. This may necessitate upgrades to the freight and logistics network beyond road and rail. Underground conveyor tunnels are being explored in places such as Japan, where labour shortages have intensified the need for innovative solutions like the Tokaido Corridor. The movement of goods through an underground freight linkage would create greater connectivity and increase productivity whilst reducing emissions on the road. Applied to a local context, an underground tunnel linking Fisherman Islands to Toowoomba, via Ebenezer, or other inland port destinations, would create another channel in the freight network, thereby increasing throughput capacity and the movement of goods across the region. However, advancements in automation and clean energy will see the Port of Brisbane focus primarily on road and rail in the near future.

FEATURE

Brisbane International Cruise Terminal (BICT)



CONCEPT/ARTIST IMPRESSION ONLY

Enhancing the Brisbane International Cruise Terminal (BICT) as a world-class tourism gateway

In 2060, passengers far and wide will leverage the BICT as the gateway for regional, international and sustainable tourism. Every step of the journey will be optimised to enhance convenience and comfort, ensuring an exceptional visitor experience while actively supporting environmental stewardship and sustainable tourism.

The tourism sector is continuously being shaped by factors relating to climate change and digital innovation, among others. Travellers of the future will require increased connectivity, enabling them to get to where they need to go with greater ease, speed and a minimal environmental footprint. In addressing this need, the BICT will provide increased accessibility and passenger experiences that transform travel logistics into sustainable, streamlined services, playing a pivotal role

in growing Queensland's visitor economy. Realising this vision and unlocking the benefits of increased volume and passenger movements will require parallel investments and collaboration across Queensland's destination network.

Cruising from Brisbane contributes approximately \$1.05 million in GSP and supports around 1,490 jobs annually.*

*DELOITTE ACCESS ECONOMICS (DAE) REPORT 'ECONOMIC CONTRIBUTION OF PORT OF BRISBANE', 2025 <HTTPS://WWW.PORTBRIS.COM.AU/MAJOR-PROJECTS/PORT-OF-BRISBANE-S-ECONOMIC-CONTRIBUTION>

Upgraded road and transport connectivity

As a central node in a broader network of travel destinations – including the Gold Coast, Sunshine Coast and Bay Islands – the BICT provides an essential point of connectivity that strengthens Brisbane's role as a premier destination for international and domestic travellers. Through close collaboration with Queensland, regional and Pacific destinations, cruise lines will be able to develop compelling travel itineraries for passengers, delivering economic benefits to regional ports.

Transport connectivity between the cruise terminal and other destinations will also be essential in supporting a broad range of customer journeys. Clean and sustainable direct connections to airport, CBD and the bay area could include:

- An upgraded transport corridor through Pinkenba that improves safety, climate resilience and public amenity.
- A dedicated public transport corridor (mass rapid transit connection), connecting passengers directly to the airport and/or CBD, supported by potential rail connections and Brisbane Metro expansion.
- Autonomous electric vehicles operating efficiently to transfer passengers to the airport and other key interchanges.
- Air taxis providing personalised transportation options to alleviate road congestion and eVTOL for private excursions.
- High-speed watercraft ferrying passengers to Brisbane CBD (Meanjin) and the Bay Islands (Minjerribah/Mulgumpin).

Sustainability at the core

The future of the cruise industry is largely driven by decarbonisation and resource management as key priorities for enabling sustainable tourism. In 2024, a study found that some mega cruise ships contributed as much CO2 annually as a small town.* Aligned with the Port of Brisbane's commitment to a net-zero future, the future vision for the BICT exemplifies this shift towards developing energy-efficient designs and environmentally conscious operations through the following initiatives and opportunities:

- Supporting decarbonisation of the cruise industry through clean energy supply (ship to shore power) and net-zero port operations.

- Provision of clean fuel at berth to support cruise operator decarbonisation, leading to air quality improvements.
- Opportunity to establish 'green cruise corridors' between ports and support cruise industry decarbonisation, whilst also attracting environmentally considerate customers who are seeking green travel options.
- Leveraging recycled water supply for terminal operations and/or supply to cruise operators.
- Supporting better resource and waste management from vessels, leveraging on-port waste-to-energy solutions to eliminate waste to landfill.

* WHICH? TRAVEL, 'EUROPE'S MOST POLLUTING CRUISE LINES REVEALED', 2024 <HTTPS://WWW.WHICH.CO.UK/NEWS/ARTICLE/EUROPES-MOST-POLLUTING-CRUISE-LINES-REVEALED-AERCC4S3Z1W0>

Elevating the passenger experience

The BICT will evolve to provide traveller amenities and services, extending beyond transport and logistics, to deliver a seamless experience that leverages next-generation mobility solutions and digital tools. This includes:

- Strong and secure digital infrastructure (IT and network capabilities) to support vessel activities, passenger boarding interface and amenities.
- Partnerships and education programs that support understanding of marine research, First Nations history, cultural heritage and conservation.
- Opportunities to educate cruise passengers on local marine ecology, environment and close connection to the Brisbane River and Moreton Bay Marine Park.
- Streamlined baggage clearance and security checks, facilitated by advanced surveillance and monitoring equipment.

Air taxis and eVTOL aircraft (electric vertical take off and landing)

Ahead of the Brisbane 2032 Olympic and Paralympic Games, investments are being made in the development of air taxi infrastructure at strategic locations across Brisbane and beyond. These electric helicopters provide a snapshot of future transportation, where people can travel to their destination with greater comfort, reliability and efficiency.



Building an adaptive logistics ecosystem

To accommodate increased trade flows, the Port of Brisbane will develop a robust, intermodal transportation and logistics ecosystem that facilitates the autonomous and efficient movement of containers, from waterside to landside and beyond.

WHAT WE HEARD

“The last mile is always the most inefficient, but the challenge is finding the right places to have hubs near final consumers.”
- Terminal operator

Autonomous zones for enhanced productivity and safety

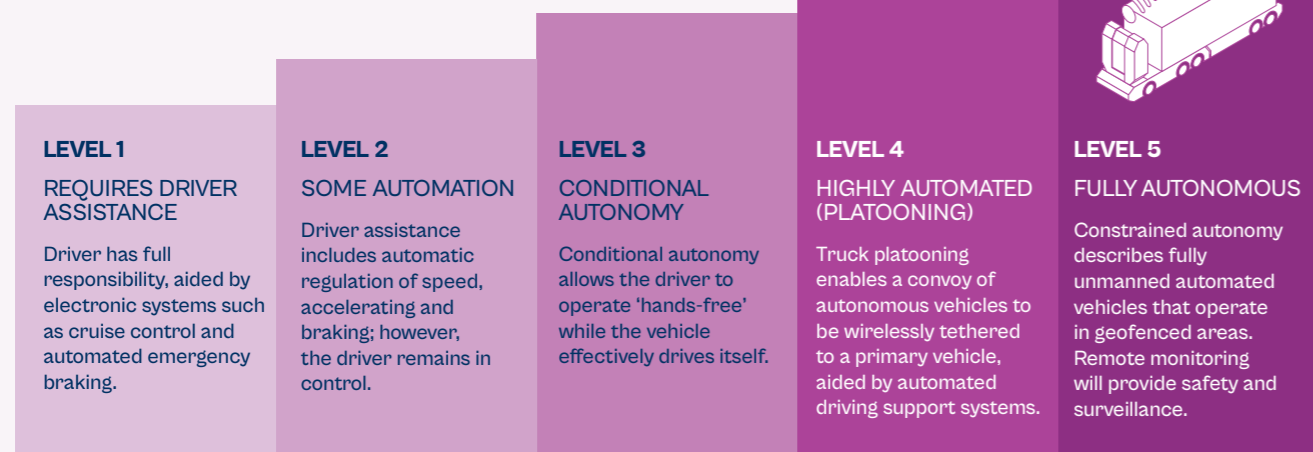
Automation will transform how goods move across the port, supporting a seamless transition from vessel to terminal, yard to transport and ultimately to the consumer. By 2060, the Port of Brisbane Motorway will include a controlled corridor for 24/7 automated road transport to operate between the Port and the Gateway Motorway.

The Fisherman Islands terminals and adjacent warehouse precincts will be fully integrated with automated landside transport, supporting Level

5 automation and a range of high-frequency tasks, including container transfers, yard movements and inter-terminal connectivity with precision and reliability. The BMT will be a critical node in this supply chain. As a highly automated area, it will operate as a secure precinct with geofenced zones and restricted access. Sensor-based safety systems will manage automated activities across terminal and staging areas. This ensures a clear distinction between fully autonomous zones and mixed-use zones for all personnel.

In this future, automated systems manage dynamic scheduling, platooning and resource allocation, minimising idle time and human error. Remote workers oversee operations using advanced computer vision and augmented reality, supported by robust safety protocols that include incident response measures for electric vehicles and battery systems, particularly in road environments and enclosed spaces such as tunnels.

Levels of autonomy



BEYOND 2060: WHAT IF?



Airships

A new era of aerial transportation

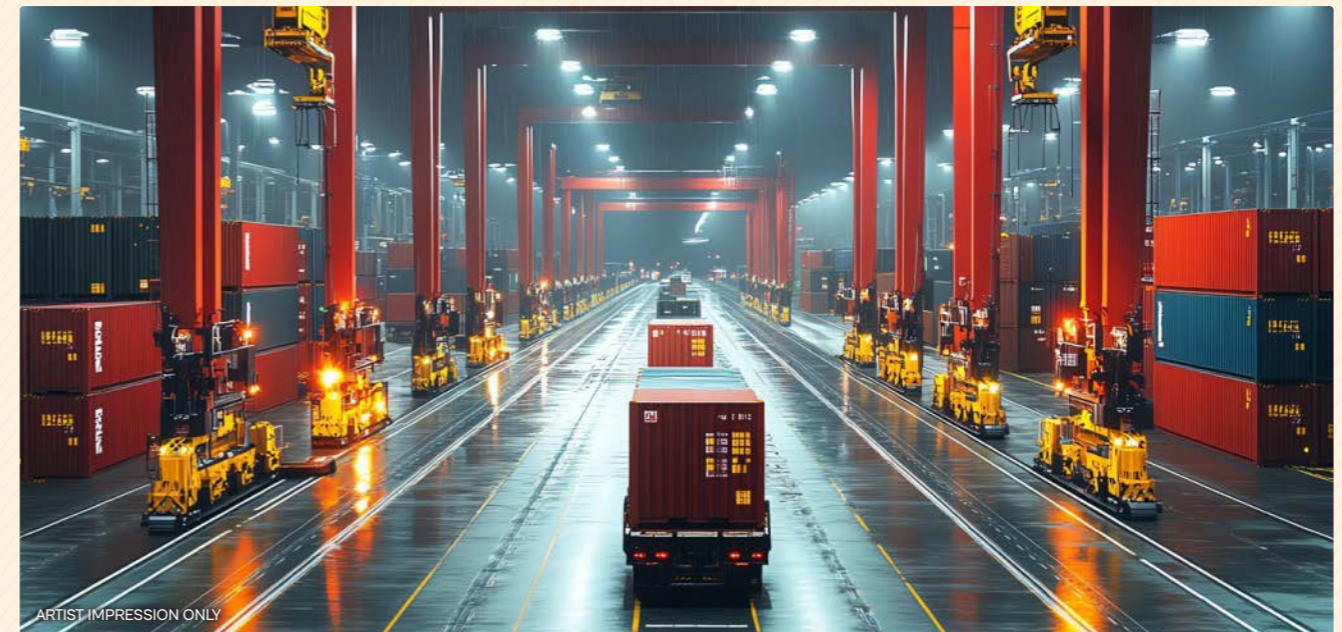
Innovations in science and engineering will see airships become a potentially feasible and cost-effective form of transport. With the ability to hover and cruise at low levels, airship transportation would provide an alternative to road and rail, helping to alleviate future congestion and capacity constraints, particularly for over-size, over-mass cargoes that are difficult to transport. Balancing payload with zero-emission efficiency, these air vehicles are better suited for logistics purposes than for passenger transport and could be used to transport wind turbines or other materials directly to site.

FEATURE

Ebenezer Intermodal Terminal

By 2060, the Ebenezer Intermodal Terminal will function as the primary inland port for trade processing and distribution.

An Ebenezer Intermodal facility is expected to be the northern end point of Inland Rail. Its feasibility is currently under investigation by the Queensland State Government.



ARTIST IMPRESSION ONLY

Located near Queensland's industrial heartland, the terminal will integrate seamlessly with the Port of Brisbane's physical and digital networks through a dedicated freight rail corridor, autonomous road corridors and advanced technology systems connectivity for container and vehicle real-time coordination.

Features of this facility could include:

- **Autonomous cargo handling systems:** Fully automated cranes, vehicles and conveyors for efficient intermodal transfers.
- **Export consolidation:** Facilities for staging and aggregating export containers, streamlining their rapid movement to the Port for vessel loading.
- **Import distribution:** Efficient storage and processing for imports, enabling timely delivery to regional markets.

1 | DRIVEN BY SEAMLESS CONNECTIVITY



Flexible infrastructure for dynamic resilience

To further increase productivity and utilisation across the port footprint, multistorey warehousing solutions will provide adaptability to accommodate a variety of uses. For example, each floor will be able to function independently of other uses, allowing functions such as cold storage to be vertically integrated. These vertical facilities will be positioned in proximity to quayline infrastructure, autonomous freight pathways, EV charging stations and other common-user and shared-use facilities.

PBPL will consider land use requirements and future property demand when assessing how the built form of the port could evolve. This could include new energy infrastructure (see Horizon 2) as well as assets relevant to new activities such as automated fleet management. New built form will be based upon principles of standardisation of modular design and adaptive systems to allow for reconfiguration and reuse. Higher-density built form will allow for greater land utilisation and accommodate a seamless and

automated logistics environment across the terminal, warehousing and logistics areas.

With the possibility of increased disruption across global supply chains, the need for flexibility in the future is paramount. The rising demand for commodities associated with the energy transition will generate the need for common-user, multi-use general and bulk terminals that are designed to handle a diverse range of cargo, including breakbulk products, bulk commodities and low-carbon fuels.

Adjustable berths, versatile storage areas and multi-functional equipment will also help to future-proof port investments. Flexible zoning and adaptive layouts will enable the port to adapt quickly to emerging trade requirements, such as off-site holding points that facilitate 'just in time' trade flows. Additionally, adaptive reuse of hydrocarbon-oriented port facilities will provide capacity for new operators and operational models that are involved in the import and export of low-carbon commodities.

Roll On/Lift Off (ROLO): A vision for future-ready infrastructure

As port land becomes scarcer, ROLO vertical solutions are unlocking smarter ways to use space. Flexible designs for ramps, floor-to-ceiling heights and building footprints enable greater adaptability, ensuring infrastructure can evolve, adapt or be repurposed to meet tomorrow's needs efficiently and sustainably.



Transformed by data collaboration

Integrated, real-time tracking and tracing across all container, vehicle and vessel movements will revolutionise logistics activities across the port community, enabling new levels of productivity and transparency.

WHAT WE HEARD

"Future ports will be transparent, immersive and interconnected in how they do their operations."
 - Strategic supplier/partner

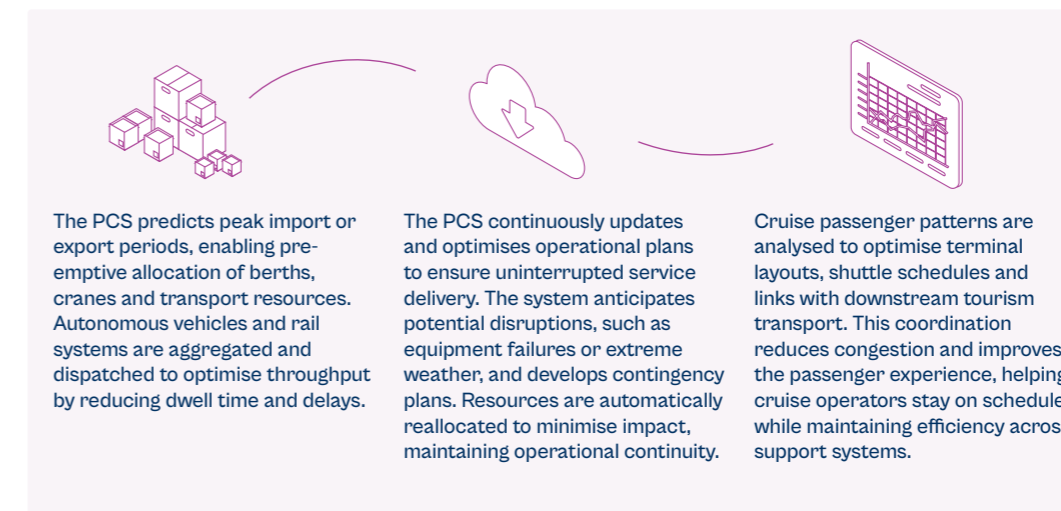
Port Community System: Optimising port logistics

The industry need for end-to-end visibility will mean that by 2060, all communications will occur within a digital ecosystem that seamlessly connects cargo owners, carriers, freight forwarders, technology logistics providers, terminal operators and the Port. In this digital future, vehicle-to-vehicle communication and situational awareness will be enabled by advanced and autonomous systems, including agentic AI - AI 'agents' capable of responding to dynamic conditions and managing tasks with a degree of autonomy. Future iterations of blockchain-like technology will also support decentralised freight tracking across the supply chain, with every movement logged and visible, from

dockside to inland transport. This provides stakeholders with enhanced visibility through the Port Community System (PCS) - a centralised coordination tool that facilitates the seamless movement of freight across the entire port network, including autonomous zones, connected corridors and distributed logistics hubs.

Beyond improved transparency, there is also an emphasis on reducing emissions and logistics costs and increasing reliability through digital integration. As we look out to 2060, it is essential that the port is equipped to adapt dynamically to changing conditions, such as weather disruptions, vessel delays, or

unplanned demand surges. The PCS will play a critical role in this, using real-time and historical data from across the ecosystem to forecast cargo volumes, predict vessel arrivals and optimise transport flows, including matching empty trucks with return cargo (a practice known as 'backloading'). These technology-enabled capabilities will minimise inefficiencies and deliver high-impact reductions in emissions across the freight network. Strengthening supply chain partnerships will be critical to realising this vision and enabling the secure, collaborative data environment needed for AI systems to operate autonomously.



The Port Community System will ensure that the Port of Brisbane operates with precision, efficiency and adaptability in an increasingly dynamic global trade environment.

1 | DRIVEN BY SEAMLESS CONNECTIVITY

Harmonising data to enable interoperability

This shift will rely on data collaboration and partnerships across multiple levels. In addition to the Port Community System, the port will be an integral part of comprehensive national and international networks of data sharing arrangements. This multilayered framework will enable global insights, coordinated actions and regulatory compliance, establishing the Port of Brisbane as a benchmark for intelligent port management.

MSW serves as a gateway for PCS to interact with government-controlled systems without direct control. PCS communicates with the MSW for customs clearance, cargo documentation and compliance with international standards.

PCS relies on the digital twin for real-time visibility of physical and digital assets (e.g. container locations, vessel movements), whilst the digital twin feeds data into PCS for operational decision-making and automation.

Maritime Single Window (MSW)

Government-controlled interface for regulatory compliance, customs processing and international data sharing.

GOVERNANCE

Owned and controlled by the Department of Home Affairs.

DATA COLLABORATION

Integration with the MSW will provide a unified platform for sharing cargo data, customs information and regulatory updates with global partners. This reduces administrative burdens and accelerates cargo processing times.

Port Community System (PCS)

Operational platform managing logistics and stakeholder coordination within the port ecosystem. Key functions include real-time scheduling, resource allocation and sustainability tracking.

GOVERNANCE

PBPL, as the port manager, is well placed to facilitate the PCS as a proprietary system. It manages commercial operations and stakeholder collaboration.

DATA COLLABORATION

The PCS connects stakeholders across the port ecosystem through standardised shared data protocols. The PCS will harness and harmonise data streams, enabling adaptive decision-making across inland hubs, logistics partners and neighbouring ports.

Digital Twin

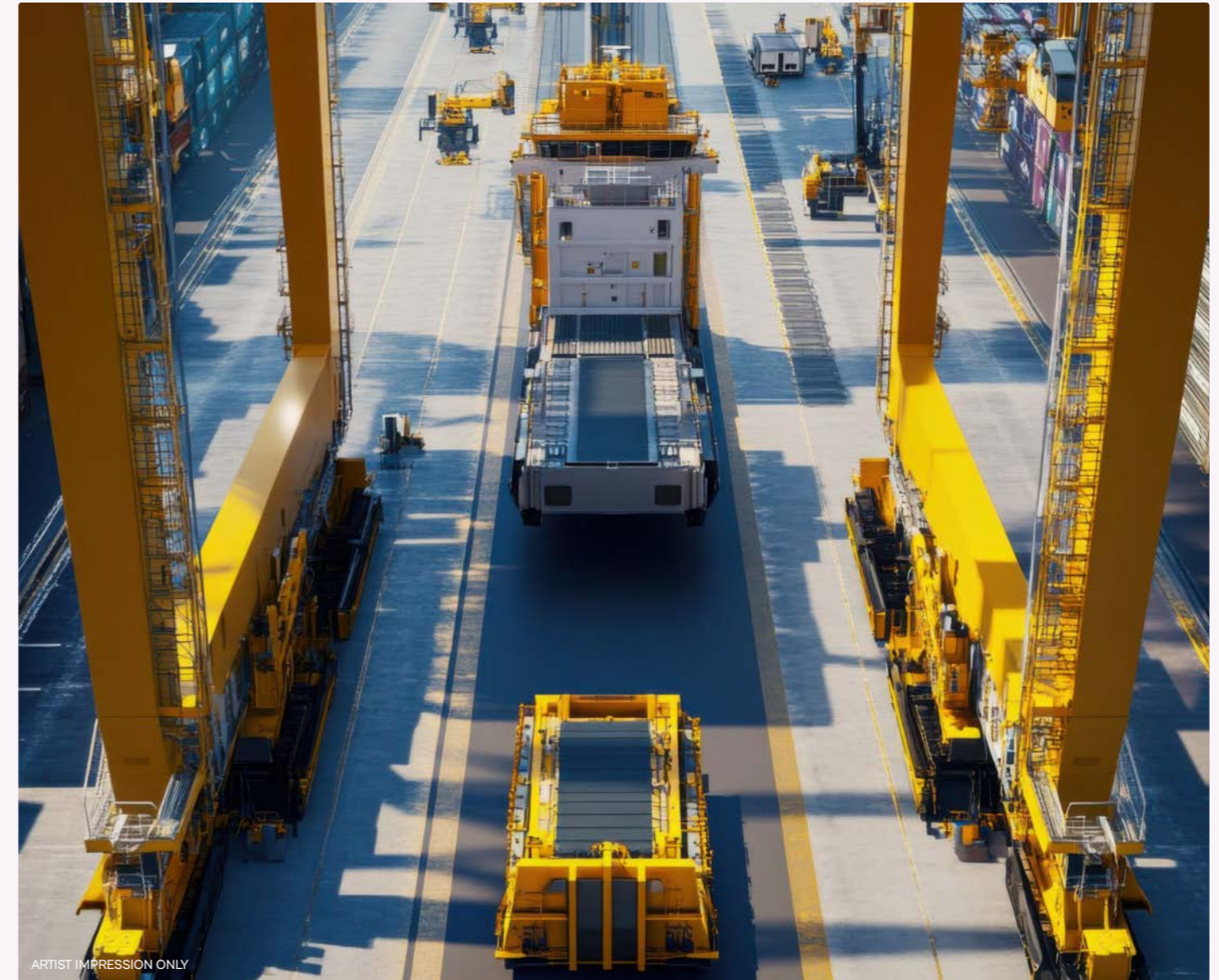
A dynamic virtual model providing live data visualisation, predictive analytics and asset management across the port precinct.

GOVERNANCE

PBPL operates and updates the digital twin in collaboration with tenants and infrastructure partners. The digital twin will synthesise insights from multiple models across the port community to provide an accurate and dynamic virtual representation of port operations.

DATA COLLABORATION

Facilitate secure data sharing across port stakeholders, including tenants and logistics partners, while integrating seamlessly with a global Maritime Single Window (MSW) to ensure global regulatory compliance.



Today 0-5 years

Initial stages of establishing digital infrastructure for improved real-time logistics tracking.

The Australian and Queensland Governments are investigating improved freight connectivity to the Port of Brisbane. The Australian Government has committed up to \$20 million toward the project, with the Queensland Government providing in-kind contribution.*

Initial planning for an Ebenezer inland port and enhancements to road corridors such as Port Drive.

Development of autonomous vehicle pilots and electrification plans for port transport systems.

*[HTTPS://WWW.TMR.QLD.GOV.AU/PROJECTS/PORT-OF-BRISBANE-FURTHER-PLANNING](https://www.tmr.qld.gov.au/projects/port-of-brisbane-further-planning)

Tomorrow 5-20 years

Autonomous zones operate within the port precinct, seamlessly connected to inland hubs via electrified freight rail and autonomous heavy vehicle corridors.

A dedicated freight rail connection from the Port of Brisbane to Ebenezer and Inland Rail to the Darling Downs, enabling efficient, sustainable and reliable transport of goods to support the growing demands of the region.

The Port Community System (PCS) fully operational, enabling seamless cargo flow and predictive logistics management.

Distributed logistics hubs alleviate on-site congestion, facilitating efficient cargo handling and export/import staging.

Future 2045 and beyond

Fully integrated, autonomous freight ecosystem supported by zero-emission transport and blockchain-enabled tracking systems.

Decentralised logistics network reduces congestion and emissions, achieving net-zero freight transport.

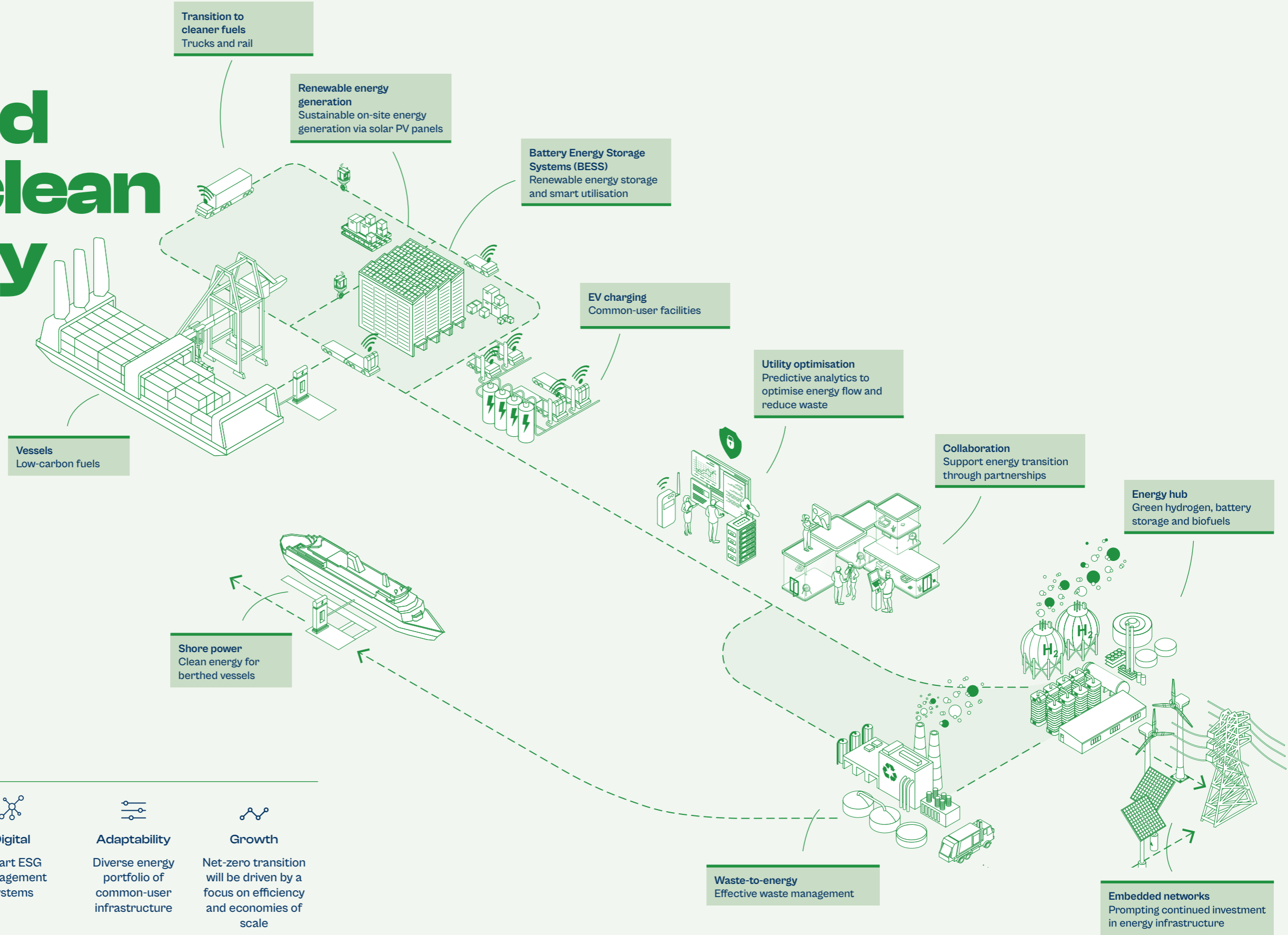
Global leader in autonomous and electrified logistics systems, supporting trade and tourism with near-zero delays.

Multimodal systems handle trade surges without disruptions, balancing growth and sustainability with precision.



Horizon 2

Powered by clean energy



DRIVERS OF CHANGE

<p>Sustainability</p> <p>Supporting the decarbonisation of the supply chain</p>	<p>Capacity</p> <p>Production and storage of clean energy, including low-carbon fuels</p>	<p>Digital</p> <p>Smart ESG management systems</p>	<p>Adaptability</p> <p>Diverse energy portfolio of common-user infrastructure</p>	<p>Growth</p> <p>Net-zero transition will be driven by a focus on efficiency and economies of scale</p>
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2 | POWERED BY CLEAN ENERGY

Securing the energy supply chain of a sustainable future

Investment in clean energy technology and localised networks is central to facilitating the decarbonisation of the port. The shift towards electric and decarbonised logistics operations will see the demand for power significantly increase. As such, power supplies will need to be supplemented by clean energy generation locally and imported renewables via the transmission network.

PBPL proudly acknowledges its leadership role as a supplier, integrator and facilitator in a future where access to potential clean energy and renewable fuels underpins a net-zero, secure and reliable global supply chain. Providing and managing renewable energy for port operations, including renewable fuels for vessels, is at the forefront of working with the port community to become net-zero as soon as possible.

Establishing a diverse energy portfolio will accelerate the path to net-zero emissions across the Port.

A GLIMPSE INTO THE FUTURE VISION

In 2060, the Port of Brisbane is a buzzing environment of streamlined activities and optimal efficiency, with higher volumes of cargo moving faster, and with fewer emissions, than ever before.

Terminal cranes regenerate power with each autonomous movement in addition to solar panels that utilise all available rooftop space. This could be bolstered by

alternative sources of renewable energy and storage systems.

Electric vehicles of all kinds journey across the precinct with precision and accuracy, returning to charging stations located at common-user and shared use precincts. Vessels and heavy vehicles run on future bio and alternative fuels. Despite being a place of complex logistical activities, the Port has a light touch on the surrounding environment and is a beacon of sustainability on the coastline, representing the continuous movement of trade that supports the region.

Accelerating the transition to clean energy

PBPL's commitment to energy security is not just about meeting current demands, but also about anticipating future needs and leading the transition to a green, sustainable future. The Port plays a crucial role in shaping a resilient and environmentally responsible supply chain by developing strong partnerships and working with the port community to understand future energy demand and requirements on the road to decarbonisation.

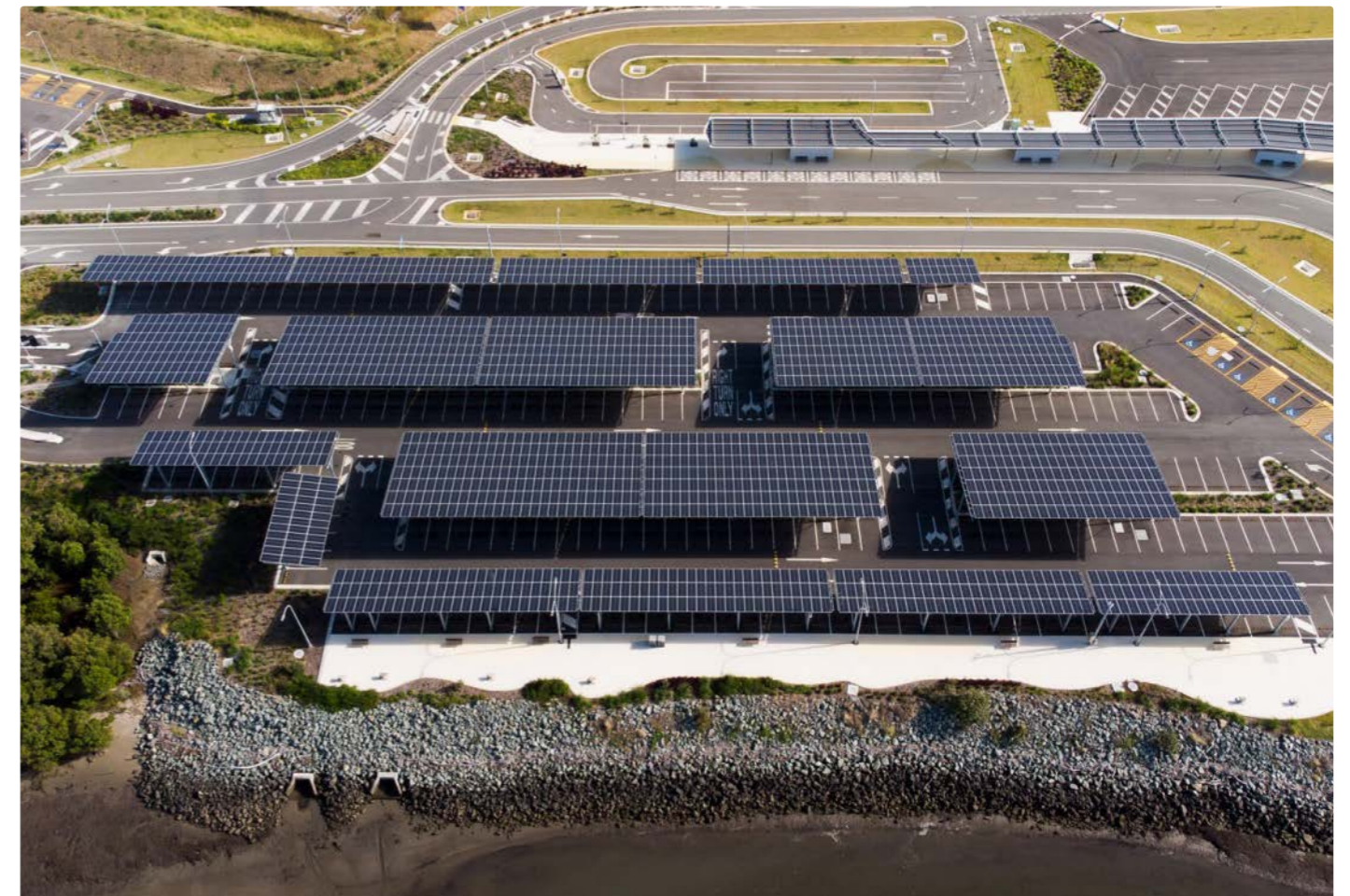
With critical developments already shifting global maritime and logistics practices, the Port of Brisbane is charting a path towards the future clean energy transformation. Shipping lines are currently exploring the use of alternative fuels in their fleets, experimenting with green ammonia, hydrogen and methanol. Road operators are continuing to

increase the use of electric vehicles in their fleets, and rail providers are exploring a mix of electrification and green biofuels.

While the exact future energy mix for transport operations is currently unclear, two clear energy trends are emerging that will be pivotal to the port's future:

- The increasing need for electrification.
- The role of biofuels as a sustainable fuel source.

PBPL will continue to collaborate with its partners, customers and communities to ensure that these trends are continuously monitored, understood and responded to in a way that enables access to the right renewable energy source, at the right time and place.

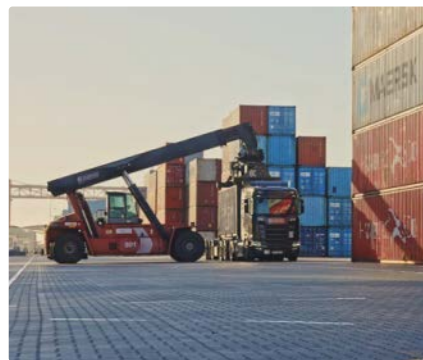


2 | POWERED BY CLEAN ENERGY

Green electricity demand

Assuming a fully electrified port with 100% shore power capabilities, forecasts* suggest that peak 2060 electricity requirements on Fisherman Islands could increase by upwards of 10 times 2024 levels.

*SOURCE: HATCH ENERGY ANALYSIS AND FORECAST



Vehicle electrification

From straddle carrier operations to yard cranes, to road and rail transport to pilot vessels and tugs, all organisations within the Port footprint will require ever-increasing volumes of renewable energy to power the green fleet revolution. With the current uptake of electric vehicles (EV), the need for renewable energy to recharge these vehicles with ease will become increasingly critical for day-to-day operations across the port footprint. EV charging stations will be stationed across heavily used logistics corridors and within key usage precincts to provide customers with easy access to recharging capabilities.



Shore power for vessels

While many cargo and cruise vessels are advancing toward low-emission fuel systems, including the use of biofuels, shore power remains a critical transitional measure that enables immediate emissions reduction while vessels are docked. By supplying electricity from on-shore infrastructure, vessels can shut down auxiliary engines while at berth, significantly lowering fuel consumption and carbon emissions – particularly for cruise vessels, which require continuous energy for cooling, heating and refrigeration. As vessel technologies evolve toward greater self-sufficiency and onboard energy optimisation, shore power provides an essential bridge that supports the maritime sector's shift to cleaner operations.



Logistics operations

It is anticipated that port tenants and operators will also increase their demand for green energy. From cargo handling equipment and forklifts, to conveyor belts and other horizontal transport, the demand for electricity from renewable sources will increase as organisations strive to meet Queensland and Australian carbon neutrality targets.

Queensland is undergoing a significant transformation of its energy network, with a strong emphasis on renewable and affordable energy to ensure sustainable power for future generations. Investments in renewable energy projects are expected to drive long-term job opportunities across the state. Additionally, renewable energy targets have been set, aiming for 80% of Queensland's electricity to be generated from renewable sources by 2035.

Demand for low carbon fuels

The general push towards carbon neutrality is leading to the rapid decarbonisation of global supply chains.

The maritime industry is already responding to this challenge through the responsible development of low carbon liquid fuels and the emergence of green corridors (partnerships between ports and vessels that encourage no or low carbon emissions).

In 2025, it is unclear whether a specific fuel will become globally preferred, but it is possible to identify a number of emerging trends:

- Green ammonia and green methanol will likely make up a large portion of the future fuels mix (despite the current complexities associated with ammonia storage and safety), with green hydrogen and renewable diesel contributing smaller portions of the mix.
- The vast scale at which these fuels will need to be produced suggests that while some fuels may be produced on-port, it is likely that the majority will be manufactured in other regions of Australia and distributed to the Port. This requires PBPL to remain dynamic and adaptive, to actively support and be able to offer these services to its customers and stakeholders.

WHAT WE HEARD

“An average vessel has a lifespan of 29 years. Effective planning, retrofitting solutions and infrastructure will be required to support the transition of entire fleets.” – PoB shipping line customer

BEYOND 2060: WHAT IF?



Hyperloop

Addressing the need for speed

A futuristic hybrid between a train and an airplane, the hyperloop is a haulage system concept designed to revolutionise modern logistics by drastically speeding up the movement of goods. The hyperloop technology currently in development is centred on magnetically floating capsules or vehicles that are deployed in a low-pressure tube at high speeds (1,200km/h), allowing for the efficient movement of people and cargo. This might be “the key to long-distance sustainable transport and a major contributor to achieve the GHG [greenhouse gas] reduction target set by the EC [European Commission] for 2030 and 2050,” according to the Hyperloop Institute of Technology*. It is likely that, when developed, this technology will be more immediately viable for the transportation of goods over people, but future improvements could see regional accessibility for workers drastically improve.

*IHT EMDEN, INSTITUT FÜR INFORMATIK, HOCHSCHULE EMDEN/LEER. https://iht-Emden.de

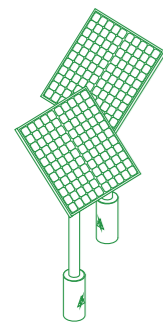
2 | POWERED BY CLEAN ENERGY

Supplying the energy needs of tomorrow

As the green supply chain transformation continues to grow in pace and urgency, the Port will become a generator of renewable energy and invest in new infrastructure that supports the decarbonisation of the supply chain in a coordinated effort to achieve net-zero targets.

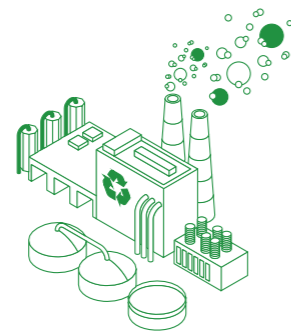
WHAT WE HEARD

“When thinking about alternative energy, batteries and electrification, safety is the big thing.” – Transport infrastructure operator



Renewable energy

The on-site power generation capability of the port will be largely facilitated through the installation of photovoltaic (PV) solar panels across the port ecosystem. These panels will range in size and be located on all buildings across the port, as well as placed in other distributed locations such as floating solar PV stations, where possible. Solar is expected to provide a large share of the renewable energy on-port, with the potential to eventually produce approximately 100MW. Further contributions could be made through onshore wind and wave energy.



Waste to energy

The development of waste-to-energy capability at the Port North precinct will provide the dual purpose of processing waste from cruise ships, port customers and regional landfill, while simultaneously providing an additional source of green energy between port precincts. This could have the potential to generate up to 50MW when fully operational.



Grid access

While the investment in renewable energy generation assets will be significant, it is anticipated that the growth in energy demand will more than outstrip the amount of energy that can be produced on-port. Therefore, it is anticipated that Fisherman Islands will still require continued connection to the state transmission network. To encourage continued investment in green energy production across the rest of the grid, PBPL will continue to advocate for, and promote the increased use of, renewable energy as part of the Australian future energy mix and facilitate the transition of the grid to renewables by enabling cargo related to wind and solar projects.

Battery energy storage systems

Large-scale energy storage devices will be distributed across the Port’s footprint to allow for renewable energy to be stored and released as required for increased system resiliency and reliability. As the battery industry continues to strengthen in Queensland, circular economy practices and opportunities will be embedded through partnerships and technical advances in reuse and recycling. ‘Battery passports’ will also provide digital lifecycle management for battery assets to enable the recovery of component materials such as lithium, cobalt and nickel (‘Queensland Battery Industry Strategy 2024-29’).

Facilitator of low carbon fuels

The decarbonisation of global supply chains and maritime vessels is already underway through the responsible development of alternative fuels such as methanol, ammonia, renewable diesel and hydrogen. The Port’s dual role in this future will be critical – to facilitate the transportation and trade of these alternative energy sources and to provide secure, common-user infrastructure for the production and distribution of these future fuels. By 2060, port storage and bunkering infrastructure may be required with the provision of shore power for berthed vessels to reduce overall emissions.



ARTIST IMPRESSION ONLY

FEATURE

The Port as an energy producer

In 2060, the Port of Brisbane will be home to a world-class renewable energy precinct that includes flexible liquid fuel facilities. This infrastructure reflects the Port’s commitment to enhance future accessibility to biofuels.

The port precincts will evolve to include highly secure facilities that are equipped to support the safe handling of green fuels and green hydrogen production. Strategic planning of a dedicated clean energy precinct may encourage circular industries to co-locate and support a green and circular port economy.

In addition, it is anticipated that liquid fuels will also be imported from other regions within Australia, where these fuels are produced at giga-scale production facilities. Supporting green fuel technology through property and infrastructure investment may also initiate opportunities for PBPL to establish trade along a renewably clean powered green energy corridor.

2 | POWERED BY CLEAN ENERGY



Optimising the flow of energy for greater efficiency

To manage the complexity of energy and green fuel consumption in 2060, advanced technology systems will be required to help optimise supply and demand. This will allow for continuous operations and adaptability when renewable energy sources may otherwise lead to disruption of supply.

Embedded energy network

By 2060, the Port will foster an integrated, smart energy ecosystem that offers greater resilience and energy security amid uncertain future conditions.

In addition to accessing the state transmission network, the Port will operate energy generation and storage systems that allow for the optimisation and virtual transmission of energy generated on-port. This leverages a Virtual Energy Network, which operates through a digital platform, as well as Embedded Energy Networks that connect to physical points of supply.

This advancement has the potential to:

- Provide renewable energy smoothing and shaping opportunities.
- Provide voltage and frequency regulation to help stabilise the wider power system in Queensland by leveraging unused capacity to address intermittent power shortages.
- Provide demand relief to the broader SEQ grid during peak hours, by operating the Port as an islanded system and/or exporting power back to the grid.

Intelligent energy systems will transform port operations, enhancing resilience and efficiency

Smart energy usage and distribution

The Port will look to implement a smart energy system that tracks energy supply and usage in real time, managing its own embedded energy networks and the provision of electric charging stations, shore power and largely electrified logistics operations.

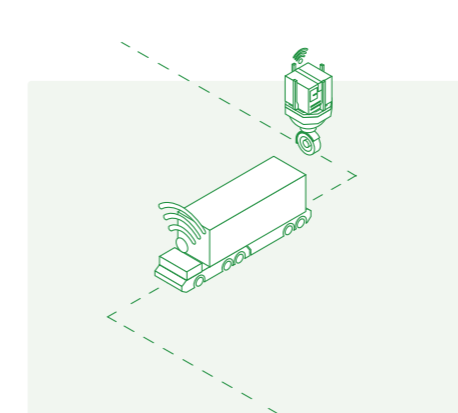
The smart energy system will be underpinned by IoT-enabled smart grids that will constantly feed data to the digital twin network from sensors distributed strategically across the entire port footprint. Combined with AI, the live data feed will enable the smart energy system to provide

constant insights and forecasts, allowing the Port to anticipate energy demand peaks, potential solar energy disruptions and optimise the use of on-port versus off-port generated energy. The smart energy system will assist in the optimisation of power usage and increase the overall efficiency of the Port's embedded energy networks as well as the use of power from the grid.

As digital innovation continues to transform energy solutions, strong leadership and partnership will be required to ensure this creates widespread benefits.

WHAT WE HEARD

“New energy and new technology will dominate the industry in the next 50 years.”
– PoB shipping line customer



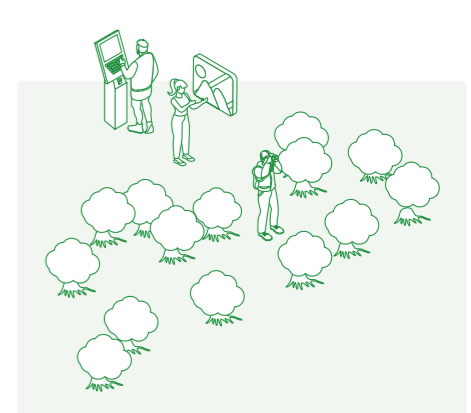
Enabling efficiencies across logistics

The flow of cargo, people and multi-modal transport across the port will be digitally monitored with the help of the port's digital twin and Port Community System (PCS), enabling port users to improve productivity through greater supply chain visibility. Ultimately, this will aid in reducing the number of unnecessary movements of vessels, road and rail transport and contribute to efficient, low-carbon trade and tourism routes.



Intelligent asset management

The ability of the digital twin and supporting AI systems to conduct comprehensive analysis will deliver insights that enhance predictive maintenance and asset performance optimisation, avoiding costly downtime and extending the lifespan of critical assets. The system will flag potential issues across port infrastructure prior to them occurring, enabling greater foresight and risk management.



Emission and environmental monitoring

The PCS will also measure and report greenhouse gas emissions from all port activities, including cruise operations and inland logistics. These insights will guide strategic decisions to reduce the port's environmental impact. It will also monitor environmental areas within the port ecosystem, ensuring minimal disturbances to both land and sea-based natural habitats despite the busy day-to-day operations of the port.

2 | POWERED BY CLEAN ENERGY

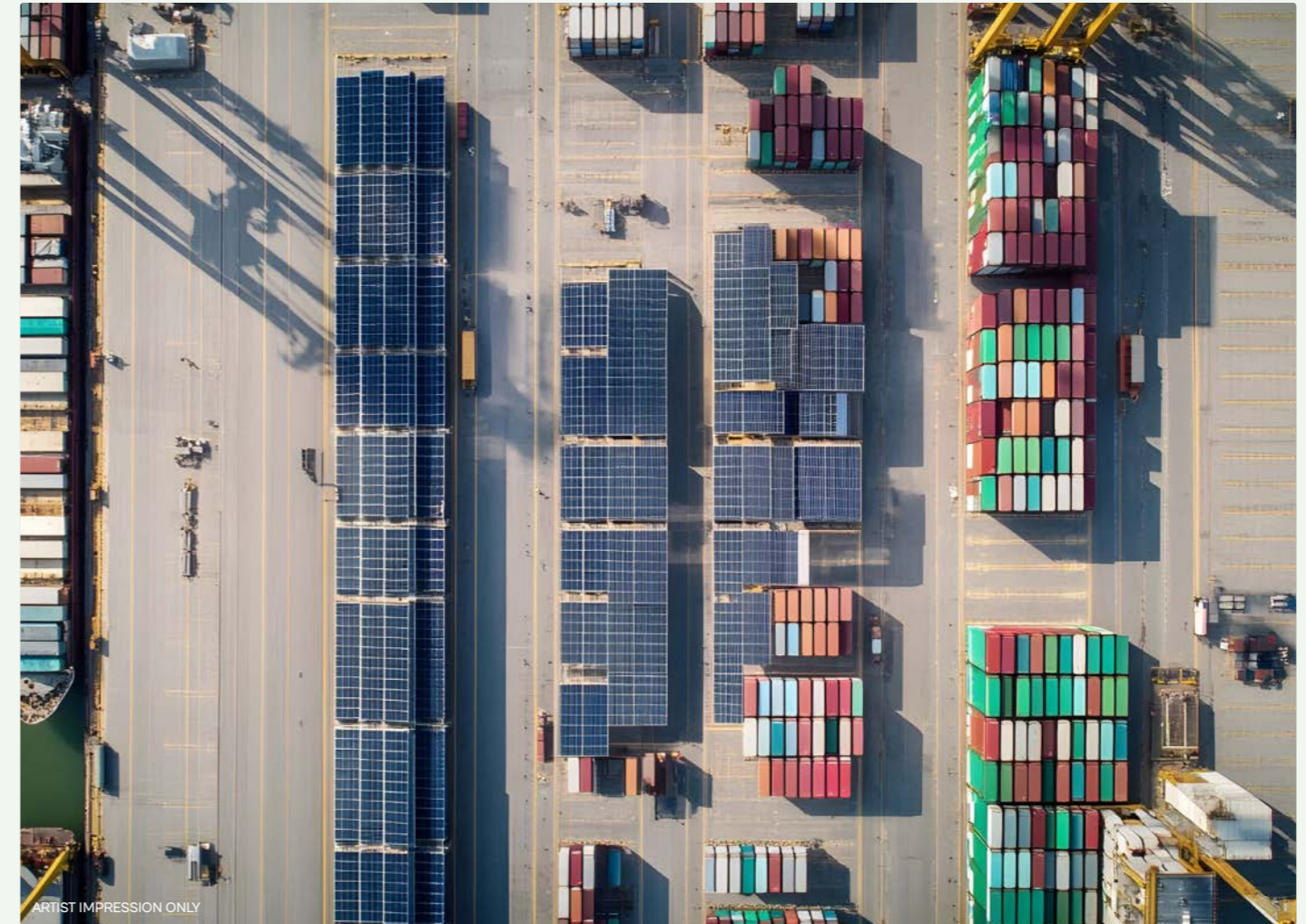
FEATURE

Smart Grid Transmission Network

As the Port transitions from carbon-intensive energy use to an investment in on-site renewable assets, the use of smart energy management systems will aim to maximise and optimise renewable generation with the integration of Battery Energy Storage Systems (BESS).

This will see the Port continue to advance existing initiatives:

- PBPL currently operates a Virtual Energy Network (VEN) that enables the virtual 'sharing' of excess solar power generated between sites, to add additional renewable energy into the grid and deliver cost savings and support a pathway to zero emissions.
- BESS trials are currently underway at the Port, and although in its early stages, will become an integral component of the port energy ecosystem by 2060.
- The implementation of a Smart Grid Transmission Network is designed to support PBPL's decarbonisation plan by optimising its energy use through real-time data and predictive technology. Digital integration of smart technologies supported by electrical and digital infrastructure and data sharing agreements will enable efficiencies across the entire port and support the Queensland target of transitioning to net-zero emissions by 2050 ('Clean Economy Jobs Act 2024').



Today 0-5 years

Initial investments in renewable energy infrastructure, including solar installations and waste-to-energy pilots.

Initial upgrades to the energy network.

Early green bunkering projects to facilitate the transition to alternative fuels like hydrogen and methanol.

Alternative and hybrid energy sources such as renewable generation and clean energy storage.

Maintenance of ~635ha of existing Brisbane Core Port Land (BCPL) as greenspace, including buffers and conservation areas.

Embedded networks to support an integrated, smart energy ecosystem.

Tomorrow 5-20 years

Renewable Energy Precinct operational, supporting large-scale on-site energy generation, storage and distribution.

Continued upgrades to the energy network.

Port-wide electrification for transport and operations.

Expansion of hydrogen production and green fuel export capabilities.

Integration of energy-harvesting technologies, such as thermoelectric power generation from rail movement, to supplement on-site renewable energy sources and enhance energy efficiency.

Build robust and resilient energy infrastructure to respond to growing demands and achieve net-zero emissions across the Port as early as possible.

Future 2045 and beyond

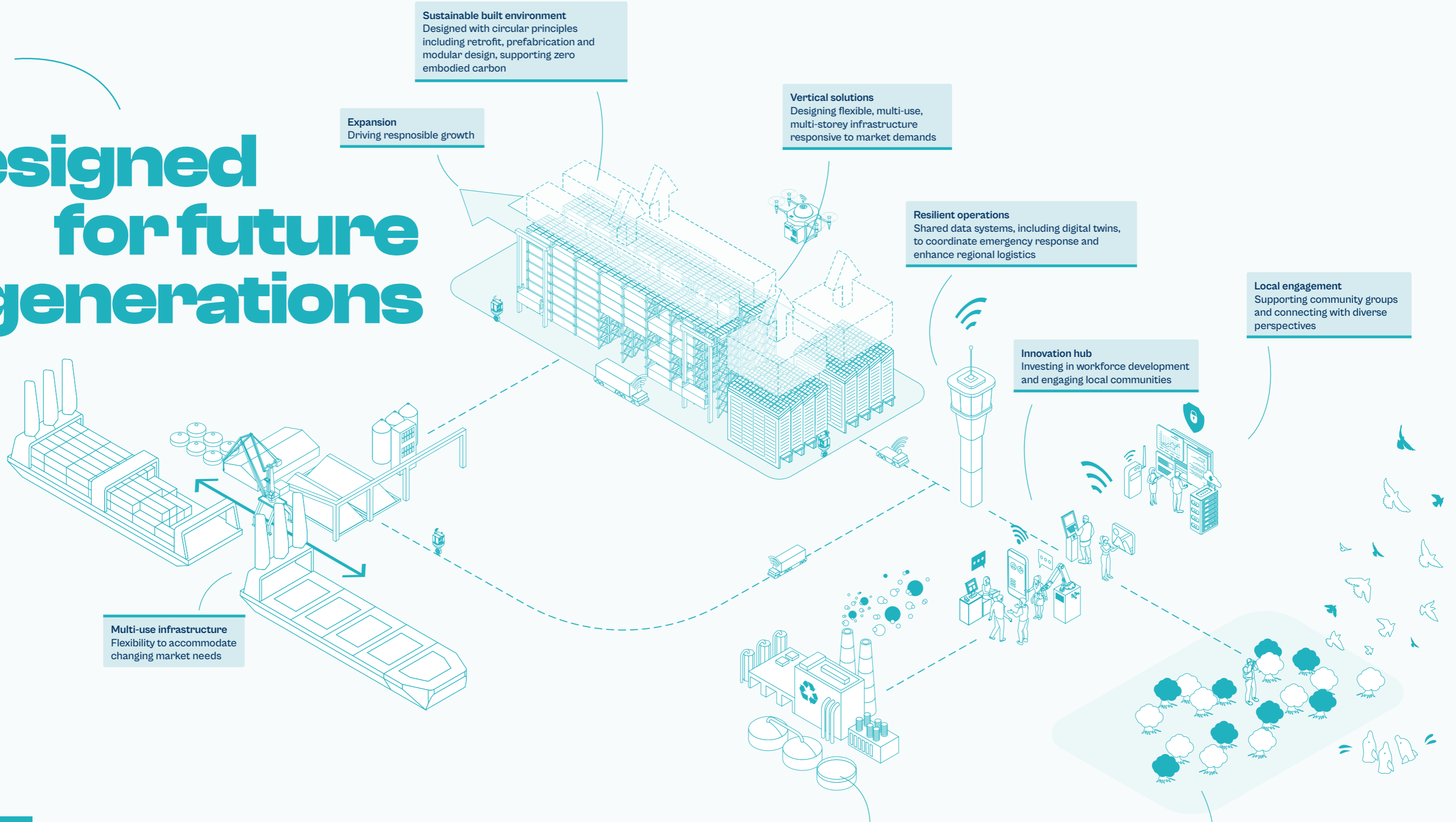
Port functions as a localised energy hub, powered by renewable sources, integrated with energy storage and smart energy management systems, ensuring resilience.

Port facilitates the production and distribution of green fuels like methanol and ammonia, with advanced facilities for global energy trade integration.

Net-zero shipping corridors fully operational, supported by renewable energy infrastructure and a range of biofuel bunkering options. All berths equipped for shore power to eliminate dockside emissions.

Horizon 3

Designed for future generations



DRIVERS OF CHANGE

- 
Sustainability
 Circular economy practices and waste management
- 
Capacity
 Channel enhancement and port expansion
- 
Digital
 Skilled workforce and predictive maintenance
- 
Adaptability
 Climate resilience and emergency preparedness
- 
Growth
 Population growth and increased trade volumes

3 | DESIGNED FOR FUTURE GENERATIONS

Leading the way to a resilient, inclusive and sustainable future

By prioritising innovation, resilience and sustainability, the Port is taking decisive steps today to secure a dynamic and inclusive future across the port community for generations to come. Through advanced environmental monitoring, digital transformation, intelligent design and a commitment to circular economy principles, the Port is addressing the local challenges of climate change and regional growth while aligning with global objectives such as the United Nations Sustainable Development Goals.

In the future, the Port will be a hub of innovation by continuing to foster deep connections with local communities and investing in a skilled, future-ready workforce, balancing economic prosperity with environmental stewardship and social inclusion. This integrated approach ensures the Port of Brisbane remains not just a vital logistics gateway but also a source of shared value, resilience and leadership in the face of an evolving global landscape.

The Port of Brisbane is charting a bold course for a future where people, communities, and ecosystems are at the core of its vision.

A GLIMPSE INTO THE FUTURE VISION

In 2060, continued environmental stewardship and strong leadership has established the Port as a critical driver of regional resilience.

Climate shocks and uncertainties remain on the radar of concern, emphasising the need for data collaboration and predictive digital systems that monitor subtle changes in local conditions, from the waterways to the weather. The port is well utilised and optimised for efficiency, with land development and building design reflective of resilience and sustainability objectives.

The Port of Brisbane has deepened its engagement with local groups, taking an active role in the interests of the broader community as well as managing and protecting the surrounding marine ecosystems.

The Port is a maritime innovation hub, where people gather to learn about, protect and enhance local natural habitats. Training and development programs will also focus on embedding new and emerging workforce skills that empower teams to work alongside digital technologies, ensuring safety and security in a highly automated environment.

Extending capacity through responsible growth



INDICATIVE FOOTPRINT FOR FUTURE PORT EXPANSION

Port expansion and densification

The Port of Brisbane's approach to infrastructure development will manage future increasing trade volumes through targeted, responsible expansion and densification across the port precinct. Strategic land use planning and development will focus on maximising the existing footprint whilst prioritising future port expansion through responsible practices and land reclamation. An initiative like the Channel Enhancement Project is key to ensuring the future-readiness of the Port, as a strategic enabler of economic growth.

Optimising the use of land and property within the Port is crucial for operational efficiency and future expansion.

3 | DESIGNED FOR FUTURE GENERATIONS

Vertical solutions to maximise the existing footprint

Demand forecasts suggest that the Port will not only have to expand its existing land footprint, but it may need to respond to future spatial constraints by implementing vertical solutions. High-density vertical warehousing could be introduced near key logistics corridors, providing storage services and increasing capacity for specialised cargo such as perishables. Future zoning will allocate land to critical operational functions, balancing logistical needs with environmental management and community access. Despite this densification, the Port will continue to prioritise the protection of green space across its precincts and look to increase use of carbon capturing materials that reduce its carbon footprint.

Adaptable infrastructure to meet evolving trade needs

As the shift towards clean energy and autonomous systems necessitates greater collaboration, port infrastructure will also need to support this transformation. The future port precinct will operate as a clean energy corridor, with common-user infrastructure for charging and refuelling, and shared-use logistics infrastructure for terminal operators. The Port will adopt modular infrastructure principles that enable scalable, cost-effective development, with facilities designed for rapid expansion or reconfiguration in response to seasonal demand or changing trade patterns. This adaptable infrastructure will help alleviate bottlenecks and support more efficient cargo flows through features such as one-way vehicle corridors and automated zones to manage trade surges. Incorporating circular economy principles, modular design will also reduce resource waste and ensure long-term flexibility to meet evolving environmental demands.



Spaceports

Sea launch stations

As we look towards the future, space exploration will continue as the next frontier for human progress. This will see investments into aerospace research and engineering move the needle on how and where objects such as rockets and satellites are launched into space. In the future, sea spaceports are a likely option to facilitate launch activity and mitigate the risks associated for civilian populations, as well as the substantial costs associated with the safety and cleanup operations required at inland sites. We are already seeing developments in sea-based spaceports in places such as China, to support the launch of light-lift solid rockets, and we expect to see further developments in this space as we look out to 2060 and beyond.

FEATURE

Channel Enhancement Project

The Channel Enhancement Project (CEP) will add capacity to the Port's existing navigational channels, enabling the safe and efficient transit of increasingly larger container vessels and bulk cargo ships.

With population growth driving increases in trade volumes and global shipping trends leaning towards larger vessels, the CEP is not just a response to current demands but a proactive measure to future-proof the port's operations.



*The project requires Australian and Queensland Government approvals. PBPL has committed to beginning the approvals process. No financial commitment has been made to the delivery of the project.

Vision for growth

The CEP represents a long-term commitment to enhancing the Port of Brisbane's capacity and efficiency and facilitating the trade requirements of our region's growing population. By accommodating vessels with capacities between 10,000TEU and 14,000TEU - expected to become commonplace in Australia over the next two decades - the project will significantly increase channel capacity.

Safety and efficiency

Upgrades such as channel re-alignments and increased bend radius will enhance vessel manoeuvrability and safety for larger ships in Moreton Bay, while also improving operational efficiency and reducing emissions.

Environmental stewardship

The project involves capital dredging, displacing material that will be beneficially reused for future port expansion where possible. An Environmental Impact Statement (EIS) for the project is currently under development.

By focusing on safety, environmental stewardship, strategic alignment and Traditional Owner collaboration, the CEP will prepare the Port of Brisbane's infrastructure for future demands and reinforce its role as a vital economic driver.

Strategic alignment

The CEP aligns with key government strategies, including the Queensland Ports Strategy and the National Freight and Supply Chain Strategy and Brisbane's Economic Development Plan 2031 - growing trade and investment. Declared a 'coordinated project' under the State Development and Public Works Organisation Act 1971, it reflects a collaborative effort among various stakeholders.

Community engagement

Active collaboration with shipping lines, local Traditional Owners and the Moreton Bay community ensures diverse perspectives are considered in the project's development.

Smart asset management and predictive maintenance

By 2060, data will evolve to become one of the logistics industry’s most valuable assets, enabling dynamic machine-to-machine communication and AI systems that will transform port master-planning processes. PBPL is committed to investing in advanced digital infrastructure to enable smart master-planning and comprehensive asset management across its entire footprint. By continuing to develop key partnerships for data collaboration in the coming decades, PBPL will ensure continued innovation and adaptability in its operations.

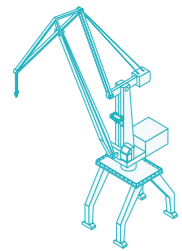
In the future, it is anticipated that there will be multiple digital twins in operation, allowing port tenants and operators to virtualise their operations and leverage data-driven decision-making. These virtual models synchronise with real-time data from across the port community to enable predictive and dynamic decision-making capabilities. The ongoing evolution of digital twin capabilities will determine how they will be leveraged at the port, from geospatial tracking to integrated enterprise models that work seamlessly with emerging digital technologies. By combining the likes of advanced AI and IoT-enabled systems, the port will remain agile in responding to future challenges, ensuring operational continuity and alignment with sustainability goals. These advanced systems will form the backbone of the port’s strategy to deliver innovative, reliable and climate-resilient services.

Freight tracking and climate resilience: In the path to 2060, all container and vessel movements, climate conditions and other key inputs will be monitored to enable dynamic intervention as changes arise.

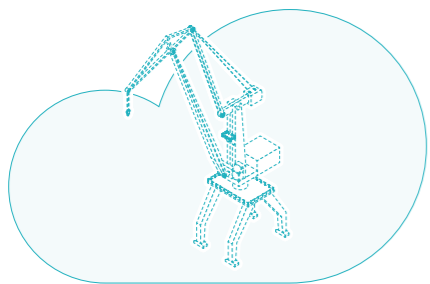
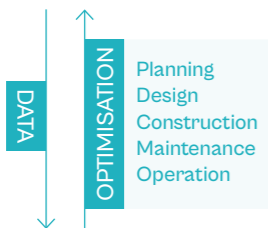
Predictive maintenance to reduce downtime: AI-powered predictive analytics will identify potential equipment issues and automatically intervene, addressing challenges before they escalate, to ensure operational continuity.

Extending the lifespan of critical assets: Powered by data-driven insights, smart asset management will prioritise operational efficiency and performance to ensure that all critical assets are well utilised and maintained.

Climate resilience and asset management: Live climate data enhances predictive maintenance by revealing how changing environmental conditions affect asset lifespan, supporting informed decisions and continuous improvement through shared stakeholder learning.



Physical project

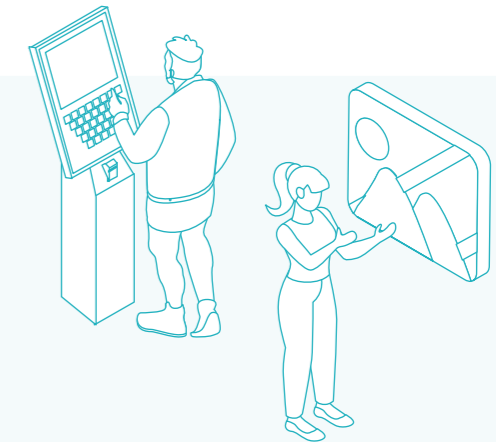


Digital twin



Safe and secure: Ensuring cybersecurity in a digital future

With the shift towards data-driven operations, cybersecurity will continue to be a key priority for the Port of Brisbane. Robust digital defences will be enabled through collaboration with national and international threat intelligence networks and all of its customers and stakeholders. These partnerships will allow the deployment of expert systems and automated security agents capable of detecting and responding to rapidly evolving threats, both human and AI. From ransomware attacks to Distributed Denial of Service (DDoS) incidents, the Port’s digital defences will incorporate quantum-safe encryption to protect critical systems and data networks against even the most sophisticated adversaries.



Quantum leap: Augmenting digital capabilities and processing power

Recent advances and breakthroughs in quantum physics are helping to materialise the future of quantum computing. This may see the technology become commercially available in the mid-2030s, requiring organisations to prioritise cybersecurity measures in preparation for this significant technological shift.

Put simply, quantum computing has the potential to revolutionise our ability to process data and solve complex problems at an accelerated rate. This presents widespread applications, from climate modelling to communication networks and superior energy forecasting, creating energy efficiencies and other advantages over classical systems.

As the technology continues to develop and become commercially applicable, the Port will be proactive in understanding opportunities to integrate quantum computing capabilities across the Port ecosystem, including cybersecurity standards and predictive analytics.

Environmental stewardship and regional resilience

The Port of Brisbane aims for its approach to environmental stewardship to be a global benchmark for balancing economic activity with ecological integrity. This vision is underpinned by forward-thinking strategies, advanced technologies and adaptive infrastructure that address the dual challenges of biodiversity preservation and climate change impacts.

Protecting and enhancing the resilience of local ecosystems

Moreton Bay's Ramsar Wetlands and Habitat Protection Zones are critical biodiversity hotspots that underpin the port's ecological and operational viability.

By 2060, the Port will leverage advanced AI-powered monitoring systems, integrating solar-powered sensors and autonomous underwater drones to collect and analyse real-time environmental data. These technologies will not only detect changes in water quality and habitat conditions but will also enable pre-emptive responses to ecological threats, reducing the risk of irreversible damage.

In parallel, the Port will implement nature-based adaptation solutions to bolster ecosystem resilience. Initiatives such as mangrove reforestation and wetland restoration will serve as natural buffers against climate-related impacts, including storm surges and coastal erosion. These projects, designed in collaboration with local environmental experts and Traditional Owners, will strengthen the capacity of the bay to sequester carbon while supporting biodiversity regeneration. By embedding nature-based solutions into

port operations, PBPL will redefine the role of the port as a steward of the environment, moving beyond compliance to create net-positive outcomes for local ecosystems.

The implementation of circular economy initiatives such as dredge material reuse and waste-to-energy facilities will also support the achievement of net-zero landfill by 2030 and further drive down operational waste by 2060. In conjunction, initiatives to support the use of recycled water across port precincts are already underway to ensure sustainable water usage for decades to come.

The future Port will operate as a climate-resilient blue economy hub. By working with nature through green and blue infrastructure, habitat restoration and the use of environmental DNA (eDNA) for monitoring, the Port will actively support marine ecosystem health. Nature-positive metrics will guide its development and operations, ensuring measurable biodiversity gains. Through strategic assessment and stakeholder engagement, the Port will become a leading example of sustainable, nature-integrated maritime infrastructure.

Circular economy to drive sustainability

The continued adoption of circular economy solutions will underpin responsible resource use and waste management at the Port.

By 2030, achieving zero waste to landfill will no longer be aspirational but operational, driven by waste-to-energy technologies that convert refuse into power for port activities. This system will not only address operational waste but also enable partnerships with surrounding industries, positioning the port as a regional leader in waste circularity.

Sustainable dredging practices and strategic material reuse will exemplify the Port's commitment to resource optimisation. This approach not only addresses environmental concerns but also creates long-term operational efficiencies, turning one of the most resource-intensive processes into an engine for sustainable growth.

Circular economy initiatives at the Port will reduce operational waste and help to eliminate waste to landfill.

WHAT WE HEARD

"We need to look through the lens of how the port can operate during more significant impacts than we would ever anticipate."
- Investor



Climate resilience through adaptive infrastructure

Climate resilience is not merely a reactive capacity but a foundational design principle for the port of the future – embedded through proactive, far-sighted master-planning across all assets.

As climate uncertainties intensify, this proactive investment will continue to evolve, ensuring port operations can withstand the challenges of rising sea levels, extreme weather events and shifting environmental conditions. By 2060, climate resilience will be a necessity and a collective objective amongst port stakeholders.

Elevating critical systems, such as power supplies, control centres and IT hubs, above flood levels will mitigate interrupted port operations during extreme weather, while incorporating permeable surfaces like porous paving reduces runoff and flood risks by improving water absorption. Additionally, using adaptive materials, such as corrosion-resistant metals and heat-tolerant composites, extends the durability of wharves and other infrastructure, safeguarding them against rising temperatures, heavy rainfall and saltwater exposure, crucial for maintaining the port's resilience and operational efficiency in a changing climate.

The use of predictive analytics, powered by AI-driven climate models, will enhance the port's ability to anticipate and mitigate risks. These systems will provide actionable insights on weather disruptions, sea-level trends and ecological vulnerabilities, enabling the port to adapt dynamically to emerging threats.

Master planning will embed sustainability into every aspect of operations, driven by robust emissions monitoring and reporting systems. For PBPL, Scope 1 and 2 emissions will be a thing of the past, while efforts will continue to drive down Scope 3 emissions. These efforts, paired with investments in green infrastructure and advanced digital tools, will balance growth with conservation priorities, safeguarding Moreton Bay's unique landscape for future generations.

Community and workforce engagement

Ports are more than landlords – they are community conveners, fostering partnerships and creating spaces where people, business and technology come together to solve challenges for future generations.

Investing in workforce development for future maritime and digital skills

The future workforce will undergo profound changes driven by automation, digital transformation and sustainability imperatives.

These shifts will redefine the nature of work, transitioning from physically intensive roles to knowledge-based tasks that require strategy, oversight and technological expertise. This transformation is both complex and an opportunity to cultivate new skills and capabilities across the maritime sector.

Future roles will emphasise remote operations, allowing workers to command tasks like navigating surveillance drones, monitoring autonomous systems and controlling terminal cranes without being physically present. This will ensure people remain ‘in the loop’, providing critical oversight and decision-making, while providing significant safety benefits. A surge in demand for technicians and data engineers will accompany this shift, particularly for the management of artificial intelligence and digital ecosystems. These roles will be complemented by specialised cybersecurity teams responsible for safeguarding the port’s virtual infrastructure from increasingly sophisticated threats.

People are at the heart of the port community. The vision for a digital transformation can only be realised through strategic investment in workforce development.

WHAT WE HEARD

“People should be a centrepiece to any automation, and human experts can be well trained, as the workforce is very mobile.”
– Strategic supplier/partner



Automation will also help address labour shortages in logistics, transportation and warehousing, creating efficiencies across the supply chain. As automation increases throughput and reduces operational bottlenecks, workers will be required to upskill in areas such as creative problem-solving, communication and technical literacy. The logistics industry is uniquely positioned to meet these needs by providing targeted training programs and fostering innovation through partnerships with academic and vocational institutions.

The port workforce will continue to adopt flexible employment models, blending permanent staff, part-time roles and contractors to meet dynamic operational demands. A future-focused investment in upskilling will create a workforce capable of adapting to technological advancements while thriving in a digitalised and sustainable industry. This workforce will not only maximise operational capabilities but also reflect the Port’s commitment to inclusivity and growth.

Engaging with local communities to align port activities with their needs and priorities

The Port of Brisbane’s approach to community engagement reflects its central role in the economic and social fabric of Queensland.

In the future, the port will continue to lead and create shared value by aligning its activities with the aspirations of local communities, fostering transparency, inclusivity and mutual benefit. Its approach will leverage innovative digital engagement platforms, public access initiatives and meaningful cultural collaboration to strengthen community ties.

The Port of Brisbane has a long-standing relationship working with Aboriginal and Torres Strait Islander communities and supporting important initiatives including the Quandamooka Jarjums Camp and National Reconciliation Week events.

As a company, we acknowledge and greatly respect Aboriginal peoples’ custodianship of the land and waters and are committed to continuing the reconciliation journey by building trusted partnerships that lead to tangible outcomes for Aboriginal and Torres Strait Islander people, organisations and communities.



Transparency through digital platforms

Near-real-time digital engagement platforms will provide communities with instant access to environmental data, operational updates and progress on sustainability goals. The port community and public will be empowered to monitor metrics such as air and water quality and provide feedback on major infrastructure projects. This level of transparency will enhance public trust and accountability, ensuring that the port’s operations align with community priorities.



Public engagement

The Port’s role as partner to community groups will continue to grow over time, as the need for greater collaboration between NGOs and the private sector intensifies, in order to tackle the challenges of a growing community. As a respected centre of maritime innovation, the Port will deepen community connections by engaging schools, universities and local stakeholders in educational and community programs.



Cultural inclusivity and collaboration

Active collaboration with Traditional Owner communities will embed cultural knowledge and values into the Port’s decision-making processes. Conservation projects in Moreton Bay, alongside heritage site preservation efforts, will honour traditional custodians while integrating cultural heritage into port planning and operations. These efforts will serve as a model for integrating cultural inclusivity into industrial growth.



Equity and economic inclusion

Recognising the importance of economic inclusion, the Port will prioritise tailored workforce programs for underrepresented groups, including Aboriginal and Torres Strait Islander people, women and other communities. These initiatives will address barriers to employment and provide opportunities for skill-building and regional hiring, ensuring that the benefits of the port’s growth are distributed equitably.

3 | DESIGNED FOR FUTURE GENERATIONS

FEATURE

A global leader in maritime innovation

The Port of Brisbane will evolve to provide a collaborative ecosystem that drives innovation and equips the maritime workforce of the future. By 2060, this may see the Port enable a dedicated environment for research, education and community engagement, positioning the Port of Brisbane as a fast mover in logistics and supply chain advancements.



Future skills and co-innovation

The Port of the future will prepare the next generation of maritime leaders through advanced skills training programs tailored to emerging industry needs.

Immersive learning environments – such as augmented reality (AR) simulations and hands-on experience with digital twins – will equip students and workers with the expertise required to excel in a rapidly automated and digitalised industry. In doing so, this will attract both domestic and international students, as well as support ongoing professional development for industry practitioners.

As a hub of maritime innovation, this dedicated learning environment will act as a living laboratory for the port community. Adjacent to Moreton Bay’s protected ecosystems, observation spaces will provide accessibility for people to monitor wildlife and interactive exhibits highlighting technological solutions for environmental stewardship. This focus emphasises a balance between industrial growth and ecological integrity, building on PBPL’s leadership in co-developing the under-keel clearance technology, NCOS Online.

This initiative will enable PBPL to contribute on critical challenges facing the maritime industry, such as sustainable logistics, energy and digital transformation.



Today 0-5 years

Proactive stakeholder engagement for environmental monitoring and biodiversity preservation, supported by initial AI-sensor pilots for ecological tracking.

Initial implementation of data-sharing agreements and pilot projects for IoT-enabled environmental and operational monitoring systems.

Climate resilience planning focused on ecological buffers, infrastructure upgrades and disaster management strategies.

Investigation of a digital model that could optimise asset management and decision-making processes.

Partnerships with local Aboriginal and Torres Strait Islander communities to safeguard cultural and natural heritage, alongside workforce training initiatives aligned with sustainability goals.

Tomorrow 5-20 years

Fully operational ‘hub’ for maritime innovation, offering advanced education and skill-building in maritime technologies and climate resilience.

Expansion of AI-powered monitoring systems to detect and mitigate local climate-related risks in real time.

Dynamic infrastructure solutions implemented, including modular designs, vertical storage and climate-adaptive systems to address trade volume fluctuations and extreme weather events.

Circularity embedded across port operations, including habitat restoration through dredge material reuse and expanded nature-based adaptations for surrounding ecosystems.

Advanced cybersecurity measures protect critical digital infrastructure, ensuring resilience against evolving threats.

Future 2045 and beyond

The port functions as an exemplar of environmental stewardship with integrated solar-powered sensors and autonomous monitoring systems.

The digital twin evolves into a multi-layered platform connected to global networks, optimising trade flows, logistics efficiency and environmental outcomes.

Achieved full circularity in waste management and contributed significantly to restoring surrounding ecosystems.

Community and workforce models globally recognised for innovation in equitable job access and socio-environmental integration.

Charting the course

Vision 2060 is designed to be a living document – a commitment to the future that will be continuously reviewed and evolved as new developments become clearer. Whilst it is not intended to be a precise statement about what will happen in the future, it is essential in providing a shared foundation to aid forward-focused planning.

This vision is a platform for growth, innovation and investment for PBPL, its customers, community and government stakeholders. To deliver on the aspirations set out in this document, the vision will become an embedded feature of the port to facilitate the necessary discussion and collaboration to ensure the vision can become reality.

This timeline plots the key changes between now and 2060 that will reshape the Port of Brisbane. It provides a snapshot of the evolution of the port across the coming decades and serves as a preliminary roadmap for navigating the future.

Driven by seamless connectivity

Developing low-carbon, autonomous and seamlessly connected freight systems.

- ADVANCED FREIGHT INFRASTRUCTURE
- REAL-TIME TRACKING
- GLOBAL TRADE COMPETITIVENESS

Creating a fully integrated and predictive digital ecosystem.

- AI
- IoT
- BLOCKCHAIN
- QUANTUM COMPUTING

Enhancing supply chain efficiency and transparency through advanced technology.

- BLOCKCHAIN
- IoT
- REAL-TIME SUPPLY CHAIN TRANSPARENCY

Adapting to evolving global regulations on emissions, sustainability and automation.

- POLICY ADAPTATION
- EMISSIONS COMPLIANCE
- REGULATORY LEADERSHIP

Powered by clean energy

Scaling and integrating renewable energy systems and achieving operational decarbonisation.

- TRANSITION TO CLEAN ENERGY
- REGIONAL ENERGY SECURITY
- GLOBAL LEADERSHIP IN GREEN FUEL

Maintaining a competitive edge through advanced technology and practices.

- R&D
- GLOBAL BENCHMARKING
- LEADERSHIP IN CLEAN ENERGY AND DIGITAL LOGISTICS

Balancing financial viability with investments in infrastructure and technology.

- SUSTAINABLE FINANCIAL PLANNING
- ROI
- BALANCING SHORT-TERM AND LONG-TERM PRIORITIES

Designed for future generations

Protecting ecosystems while achieving net-zero waste and climate resilience.

- BIODIVERSITY CONSERVATION
- CIRCULAR ECONOMY INITIATIVES
- ECOSYSTEM RESTORATION

Aligning port growth with community and stakeholder expectations.

- JOB CREATION
- LOCAL ECONOMIC GROWTH
- ADDRESSING SOCIAL AND ENVIRONMENTAL CONCERNS

Ensuring infrastructure and operations withstand climate change impacts.

- RESILIENT INFRASTRUCTURE
- DISASTER PREPAREDNESS
- CLIMATE ADAPTION

Initial planning for Port Community System (PCS) and digital twin.

Electrified freight corridors, IoT-enabled real-time cargo tracking.

Planning for blockchain and IoT integration.

Initial regulatory framework development for pilot projects.

Small-scale pilot projects for renewable energy and IoT systems.

Initial investments in small-scale projects.

2025-2030

Pilot studies for battery storage, small-scale solar and shore power.

AI-driven monitoring pilots; net-zero waste through circular dredge and waste-to-energy.

Circular economy and waste reduction initiatives.

Early-stage adaptive infrastructure designs.



PortBris 2060

PCS integration across operations; blockchain for supply chain transparency.

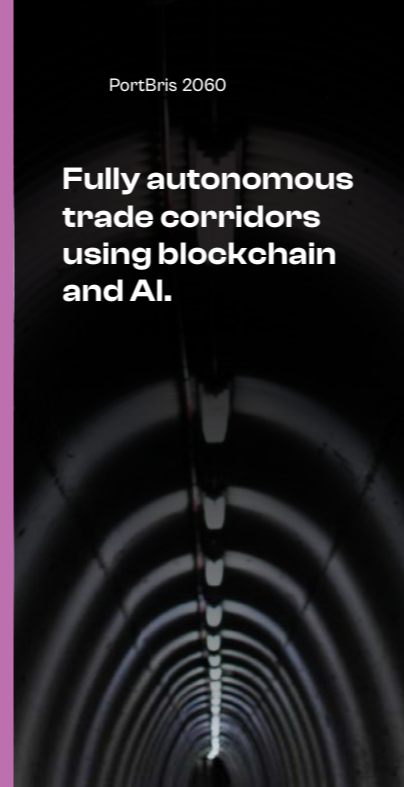


Full adoption of blockchain for supply chain transparency.



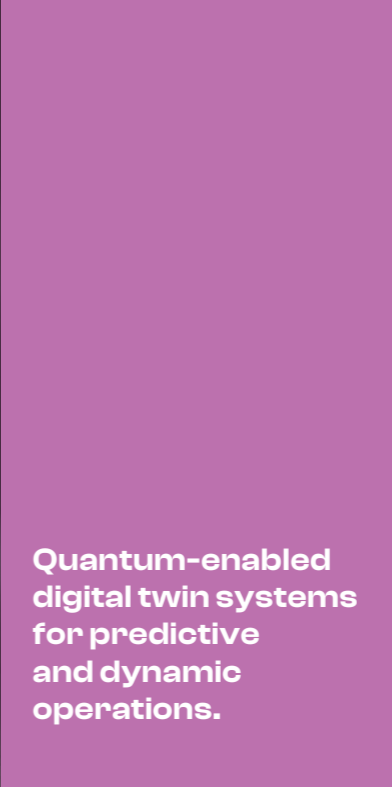
Vision 2060

Compliance with international standards for sustainability and emissions.



PortBris 2060

Fully autonomous trade corridors using blockchain and AI.



Quantum-enabled digital twin systems for predictive and dynamic operations.

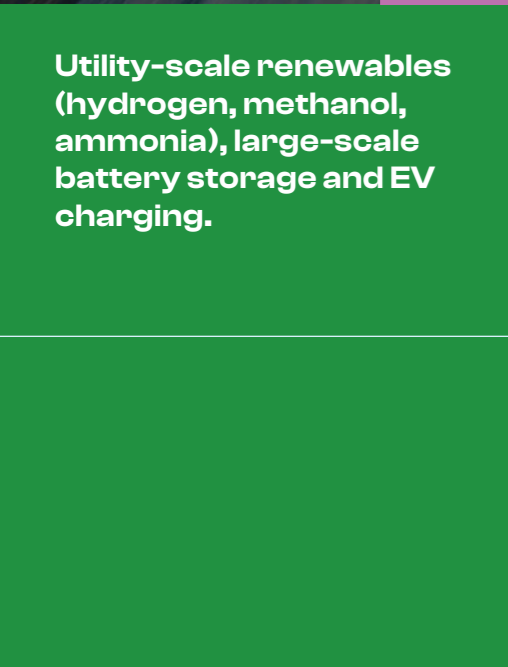


Seamless global supply chain coordination powered by advanced digital systems.



Vision 2060

Multi-modal systems balance growth with precision.



Utility-scale renewables (hydrogen, methanol, ammonia), large-scale battery storage and EV charging.

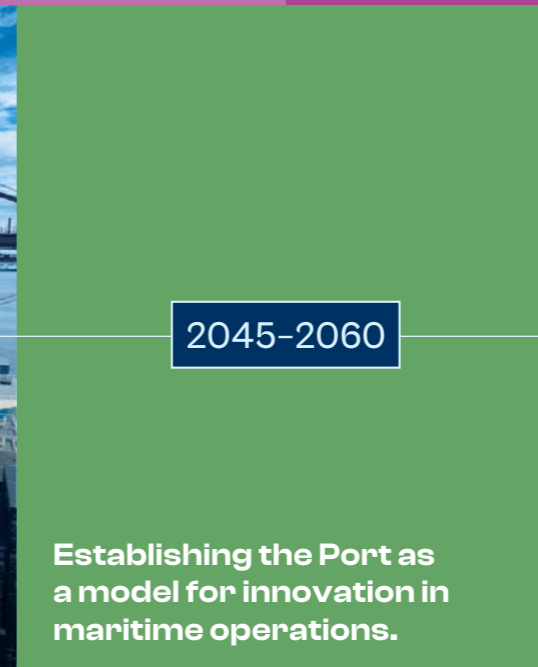
2030-2045

Scaling innovative practices with AI, blockchain and robotics.



Expanding infrastructure and renewable energy initiatives.

Full integration of renewable energy, operational shore power; becoming a green energy hub.



2045-2060

Establishing the Port as a model for innovation in maritime operations.



Achieving ROI through global competitiveness and operational efficiency.



IoT sensors, underwater drones and habitat restoration initiatives.



Operational hub to drive maritime innovation and growth.



Infrastructure upgrades aligned with climate resilience goals.



Full integration of monitoring systems; net-zero operations.



Continued local economic support and stakeholder engagement.



Full climate-adaptive operational model.

Acknowledgements

Stakeholder contribution

This work was developed in collaboration with our valuable port community and consortium of project partners, in addition to those members of our broader community who took the time to contribute online. Without your participation and involvement, this work would not be as rigorous or far-reaching.

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- Ampol Refineries (QLD)
- ANL
- Arrow Transport
- Australian Amalgamated Terminals
- Australian Container Freight Services
- AWS – Amazon Web Services
- Blue Water Shipping
- BMT
- Brisbane Airport Corporation
- Caisse de dépôt et placement du Québec
- Carnival Australia
- Cruise Lines International Association Australasia
- DHI Seaport
- DP World Australia Limited + DP World Brisbane
- DSV Air & Sea
- Energy Queensland
- GrainCorp Operations Limited
- IFM Investors
- IOR Terminals
- Maersk
- Mondiale VGL
- MSQ – Regional Harbour Master
- New Hope Group (incorporates QBH)
- NYK Line
- Patrick Terminals
- Ports Australia
- PrixCar
- QIC
- Quandamooka Yoolooburrabee Aboriginal Corporation
- Queensland Commodity Exports
- Queensland Government
- Queensland Transport and Logistics Council
- Royal Caribbean International
- Steelforce
- Sunstate Cement Ltd
- Svitzer Australia
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Project lead

- Business Models Inc

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- Hatch
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- Fujitsu
- KBR
- RPS
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Glossary of terms

Abbreviation	Term
API	Application Programming Interface
BCPL	Brisbane Core Port Land
BESS	Battery Energy Storage Systems
BICT	Brisbane International Cruise Terminal
BMT	Brisbane Multimodal Terminal
CPI	Consumer Price Index
DDoS	Distributed Denial of Service
EV	Electric Vehicle
eVTOL	Electric Vertical Take-Off and Landing
GDP	Gross Domestic Product
IoT	Internet of Things
MSW	Maritime Single Window
PV	Photovoltaic
PCS	Port Community System
PBPL	Port of Brisbane Pty Ltd
TEU	Twenty-foot equivalent unit
VEN	Virtual Energy Network
VTL	Vertical Transmission Line
WTE	Waste-To-Energy

All views expressed in this document represent scenario development only and are not to be construed as specific proposals from Port of Brisbane Pty Ltd. This document does not represent any financial or non-financial commitments from PBPL or its partners.

**Want to be a part
of this vision?**

The future is now.

The vision presented in this document presents both a glimpse into the future and a record of this moment in history, documenting the observations, needs and priorities of the community as we enter an era of unprecedented change and technological advancement.

The world will be a different place in 2060. With the support of all its stakeholders, the Port of Brisbane will become a place where horizons meet – a responsibility and ambition stretching beyond the domains of trade and logistics. The Port of Brisbane invites you to become a part of this future.

How can you contribute?

Share your voice by providing feedback and engaging in discussions about the future. Collaborate with us through partnerships and innovative projects, or by supporting sustainable practices. Stay connected by following updates, exploring opportunities and joining initiatives as we work together to shape this transformative journey.



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For more information, please visit portbris.com.au/portbris-2060 or contact Brendan Connell, Executive General Manager Sustainability and Corporate Relations, at 07 3258 4888 or email info@portbris.com.au.