

**PRODUCTIVITY COMMISSION
AUSTRALIA'S MARITIME LOGISTICS SYSTEM**

Ports Australia is pleased to provide a submission to the Productivity Commission to contribute to its inquiry into Australia's maritime logistics system. Australia's maritime logistics system is a part of the intricately interconnected Australian supply chain, which is a part of the intricately interconnected global supply chain. Hence the supply chain must be examined in its entirety to properly identify issues, drivers, and the most cost-effective measures that will positively impact Australia's maritime logistics system. Regular supply chain analysis is necessary to enable targeted improvements for efficiency and value gains, and this submission intends to assist the Productivity Commission in its assessment of the most valuable measures that can be taken by government and industry to improve Australia's maritime logistics system.

Ports Australia is the peak industry body representing both publicly and privately owned port authorities and corporations across Australia. Ports Australia is governed by a Board of Directors comprising the Chief Executive Officers of 13 port corporations from across Australia.

Australia relies heavily on international trade from a health and welfare perspective, as well as for Australian industries and the economy; and over 98% of international trade by weight is conducted via the nation's maritime logistics industry.¹ As ports are key infrastructure nodes in the supply chain that allow for the movement of international freight, Ports Australia is grateful to have been approached by the Productivity Commission for information to assist with its examination of structural issues affecting the productivity of Australia's maritime logistics system.

Several Ports Australia members are making submissions to this inquiry which should provide further detail and examples of the matters raised in this submission, and hence Ports Australia encourages the Productivity Commission review these closely and in conjunction with one another. Additionally, the Australian Logistics Council which has membership from across the logistics network has similar recommendations to Ports Australia on the measures the industry and government can take to improve supply chain productivity, and Ports Australia thus expresses its strong support of the Australian Logistics Council submission.

An overview of the international and national context is first provided to enable: a wholistic understanding of supply chain matters, including opportunities and barriers; appropriate identification of the factors that have led to any issues; and suitable determination of how these issues might be addressed and by which entities.

¹ Bureau of Infrastructure, Transport and Regional Economics 2014, Containerised and non-containerised trade through Australian ports to 2032–33.

Following this, recommendations have been made based on the study's terms of reference with suggested parties to lead the work identified. A summary of these is listed below.

Ports Australia: Key recommendations

1. Increased data transparency across the supply chain (scope item 5);
2. Adoption of digital supply chain systems including data and system standards (scope item 5);
3. Enhanced landside logistics (scope item 2 and 4);
4. Adoption of opportunities to optimise infrastructure usage (scope item 2 and 5);
5. Improved industrial land policies (scope item 2);
6. Revision of the *National Freight and Supply Chain Strategy* to advance the above points (scope item 4 and 7); and
7. Other observations and recommendations: specialised labour (scope item 3), regulation (scope item 7), pricing (scope item 2), benchmarking and performance (scope item 1), vessel size planning (scope item 4), vessel traffic arrival systems (scope item 5), coastal shipping (scope item 6).

I Context

I.1 International context

Australia is a participant within the global maritime industry and hence, changes within international markets and supply chains effect the Australian maritime logistics system. Australia is vulnerable to global impacts and has substantially less leverage than other countries to influence the international landscape as it represents a smaller shipping market and is in a location distant from other markets than the more densely populated and connected areas of Europe, China and the United States of America.

Despite this, the Australian supply chain continues to demonstrate its strength and flexibility in meeting import and export needs. This was exemplified during international shocks from the COVID-19 pandemic including increased global demand of resources and manufactured goods, increased global demand of shipping containers and vessels, increased port congestion, and temporary shutdowns of key manufacturing sites and hubs, and freight transporters including ports. Whilst there was a degree of impact felt in Australia, largely in the form of delays, Australia's supply chains remained resilient, as acknowledged by the Productivity Commission in its *Vulnerable Supply Chains Study Report*, "Australia's supply chains proved generally resilient in response to the COVID-19 pandemic, unexpected trade restrictions, the devastating 2019-20 bushfires and 2021 floods in Eastern Australia."²

Freight delays and pricing have been two areas of particular concern on the international stage, and similar to the rest of the world, these have been felt in Australia. Freight congestion existed prior to the pandemic, however this issue has been significantly exacerbated during COVID-19 due to increased global demand for shipping, port closures from outbreaks, and more local port matters such as industrial relations disruptions. The latter will be explored within the section below on the Australian context.

² Productivity Commission 2021, *Vulnerable Supply Chains Productivity Commission Study Report Executive Summary & Findings*.

Global changes in container demand have meant Australia has received more older vessels and containers than other countries experiencing even greater demand. Australian terminal operators setup with automated container unlocking systems, are therefore disadvantaged when older containers arrive and a stevedore must board the vessel and unlock each container manually. This is one example that demonstrates the complexity of the ports, of delays and of Australia within a global maritime market. Since this issue is a result of Australia's smaller market and leverage, the impact on productivity is extremely difficult to remedy. It is therefore suggested that some impedances to productivity are acknowledged as being virtually unavoidable, and that government and industry efforts be placed elsewhere where change can be affected.

Increased freight prices have been another focus internationally. These have substantially come from the shipping industry with prices rapidly growing over the last couple of years. With increased demand and little ability for alternate transportation to be utilised such as air (previously over 80% air freight was carried with passenger aircraft³, however with the reduction in air travel, air freight has had to rely more on dedicated air services or alternate transportation), the shipping industry has had more power to increase its prices. Customers have had few options except to not purchase or to source more locally, however with increased government budgets and individual savings, government, industry and individual consumers have continued to purchase resources and goods.

Although shipping prices have seen rapid growth, it is understood that shipping prices have been particularly low since the global financial crisis, and that the shipping industry is now aligning itself with actual expenditure and profit margins that mirror other similar industries. As ship design and builds can take 3-5 years, large orders made before the global financial crisis impacted shipping line budgets for a number of years, as shipping demand after the global financial crisis declined. Similarly, orders now being made to meet current high demands will take a number of years to be filled. In the meantime, it is expected the rise in shipping costs in response to a rise in demand will continue.

Given maritime logistics is a global industry, international drivers and constraints are necessary to acknowledge in the identification of issues. Similarly, the international landscape needs to be accounted for in solutions development to ensure solutions are best placed to have their intended impact. The interconnectedness of the supply chain both within Australia and Australia within the international sphere, means that international and national approaches to supply chain improvements need to be considered, as opposed to state base approaches. The above factors have served as starting point from which Ports Australia developed its below recommendations.

1.2 Australian context

The Australian supply chain is part of the global supply chain, and Australian ports are part of the overall Australian supply chain. Hence, in examining the Australian maritime sector, it is necessary to analyse the whole Australian supply chain and its position globally. The worldwide maritime logistics system has been more heavily relied upon during the pandemic, and this increased focus has led to additional international and Australian initiatives that assess the efficiency and resilience of the system.

In 2021, the World Bank and IHS Markit released the *Container Port Performance Index 2020*.⁴ The report has a commendable aim of assisting with understanding and improving port performance to optimise operations.

³ Infrastructure Partnerships Australia 2019, 2019 International Airfreight Indicator Data and Measurement Series.

⁴ World Bank and IHS Markit 2021, Container Port Performance Index 2020,

Although this aim is important and shared by Australian container ports, the report lacks contextual information to enable a clear assessment of a port's performance.

Generally, in Australia, container ports lease out their terminal operations to stevedore companies, with the container ports often being termed landlords. Stevedore companies provide the vast majority of equipment that allows them undertake day to day container handling operations, including loading and discharging services to shipping lines and landside services to transport operators. Ports have multiple terminals and each terminal may be serviced by a different stevedore company. By examining port productivity as a whole and not the productivity of each terminals / stevedore provider, it is difficult to determine where real discrepancies and concerns in container productivity lie.

Another aspect of the report that skews Australian port rankings is the fact that all container ports are ranked together. Internationally ports differ in the amount and type of trade that they handle including some servicing very specific containerised goods and/or servicing very specific vessel sizes. For example, the *Container Port Performance Index 2020* compares ports that solely service vessels under 1,500 TEU (twenty-foot equivalent units) with a global transshipment port with an all commodity frequently serviced urban container port. Comparing such ports, is equivalent to a comparison of apples and oranges.

Ports Australia has raised the above concerns with the World Bank recommending that further context is given in the report and that an improved performance index could be developed. Suggestions included indexing terminals according to productivity, and grouping performance according to similar comparators such as the extent and type of trade a port undertakes. It is expected that in the next iteration of the report, anticipated to be released by mid-2022, the World Bank may follow the latter approach in categorising container ports according to their likeness.

Australian ports differ in their setup, some are public whilst others private; and some are landlord ports renting out their land to operators whilst others are more vertically integrated and execute terminal operations. All ports in Australia though, are heavily regulated entities by state, territorial and federal governments. Port regulation includes but is not limited to, price, access, operations, security, criticality of infrastructure, work, health and safety, planning, environment, and biosecurity.

As described in the international context, globally, supply chains including ports have been impacted by COVID-19. In Australia there have been a couple of local matters that have exacerbated these impacts further, and these have included industrial relations negotiations between stevedore companies and their employees along with the Maritime Union of Australia. Ports Australia understands the importance of employer and employee negotiations to ensure all parties are able to advocate for and obtain necessary and effective working rights, however, Ports Australia considers that extended negotiations hamper supply chain productivity, and that more streamlined negotiation processes between these parties should be considered.

An often overlooked fact is that the productivity of stevedores is examined annually by the Australian Competition and Consumer Commission in its *Container Stevedoring Monitoring Report*, and observations made within the most recent report align with those raised by Ports Australia above.⁵ The National Transport Commission is currently developing voluntary national guidelines for applying stevedore infrastructure and access charges at Australia's container ports; and the effect of these shall be seen in the coming years.

⁵ Australian Competition and Consumer Commission 2021, Container stevedoring monitoring report 2020-21.

Australian ports understand the need for productivity improvements and as such, continually assess their productivity and opportunities for optimisation, with these measures allowing them to realise cost savings and better value for business. Ports have limited ability to act on or influence maritime and landside operations and hence it is necessary to look at what the Australian supply chain with state and federal governments can do as a collective to improve overall productivity. Recommendations in this report reflect this wholistic approach, with the aim of continuing to enhance the productivity of Australia's logistics system, addressing real issues and areas of most cost benefit.

2 Recommendations

These times are challenging for government with investment required in a multitude of places. Consequently, the recommendations made below, reflect where targeted investment will likely have the greatest supply chain productivity benefits. Many of these recommendations reflect those made by the supply chain sector in the *Inquiry into National Freight and Supply Chain Priorities*.⁶

2.1 Freight data transparency (scope item 5)

Freight data is a prerequisite for an accurate understanding of freight flows. At present, freight data is not available across all transport modes. This puts Australia's logistics system at an overall disadvantage, as the supply chain sector, including ports, as well as federal and state and territory governments cannot appropriately plan based on the best available data. More assumptions are required to be made and there is more room for error. Less ability exists to understand productivity, changes in freight flows and opportunities for alternate routes. This leaves Australia less able to determine real productivity opportunities, and have the system respond rapidly and flexibly to changing needs or issues. In turn, Australian businesses and individuals are impacted through higher costs and delays.

Increased transparency of freight volumes and flows across all transport modes is imperative. Ports Australia has advocated on this to the Bureau of Infrastructure and Transport Research Economics (BITRE) and to the Australian Border Force (ABF), amongst others.

The most recent corridor data for freight across transport modes is from 2007.⁷ Coastal shipping data is routinely reported and is readily available. Volumes transported by other modes are captured infrequently and are less visible. It is understood that rail data is not made publically available by BITRE, as members of the rail industry perceive that commercial in confidence information would be revealed as a result. This and other impediments to the data being made available need to be resolved, as the availability of this information will have an overall benefit for Australia.

Another improvement in data access would be to have ABF customs data be made readily available to the ports. The dataset shows the origin and destination of containers and would inform regular port planning and port master plans.

Given the above, it is recommended that federal and state governments mandate and provide increased data transparency across the supply chain including rail and container origin - destination data, noting that privacy measures such as aggregation of data must be undertaken as necessary.

⁶ Department of Infrastructure, Transport, Regional Development and Communications 2022, *Inquiry into National Freight and Supply Chain Priorities*.

⁷ Bureau of Infrastructure, Transport and Regional Economics 2010, *Interstate Freight in Australia*.

2.2 Supply chain digitalisation (scope item 5)

Digitalisation of supply chain interactions to improve the efficiency of the supply chain has been an increasing focus in recent years. Particularly as concern has risen around supply chain productivity and delivery timeframes. Entities from across the supply chain advocated for digitalisation in the *Inquiry into National Freight and Supply Chain Priorities*, noting it to be a significant opportunity for the logistics system in Australia.⁸

It is imperative that a national perspective is taken to simplification and digitalisation of Australia's trade system to ensure consistency and maximise efficiencies for government, importers, exporters, transporters and other supply chain entities. The Australian freight task is interconnected and many freight transporters are national organisations undertaking services between jurisdictions. Due to this, a nationally agreed approach to digitalisation is required.

Government has the opportunity to enable this coordinated and standardised approach for numerous government, supply chain and community benefits. These include but are not limited to, reduced duplication in the provision of information, increased transparency of imports and exports, increased ability to reduce risks related to imports and exports (for example greater transparency of freight approvals by authorities, would provide greater clarity to all parties in such situations as the Ruby Princess), improved short-term responsiveness and improved long-term planning.

It is proposed that a set of data and system standards are developed for integration capability across systems implemented by companies, and national and state and territory authorities. Having this will allow for all parties to be confident in digitalisation investments, knowing that it will have enduring relevancy. Along with the nationally agreed approach, federal and state and territory governments should support digitalisation by progressively mandating the adoption of digital supply chain interactions. It is recommended that this is addressed at a ministerial and departmental level, as a standing agenda item at 1) the national Infrastructure and Transport Minister Meetings, and 2) at coordinated meetings between relevant federal and state and territory departments.

As part of digitalisation, technologies such as blockchain should also be examined. Blockchain would allow for the secure transfer of data amongst supply chain participants, and reduce the number of entities involved in transactions which would lead to time and cost savings.

A list of notable work that is or has recently been conducted in this space which would be valuable to understand the progress and/or outcomes of to inform any data and system standards developed, includes:

- the Simplified Trade System development led by Austrade;
- the Single Window development led by the Australian Border Force;
- the Freight and Logistics Council of Western Australia state-based pilot project to improve freight data tracking and transparency;
- the port community system work championed by the Port of Brisbane with involvement from several ports across the country; and
- the Transport for NSW freight community system business case development.

⁸ Department of Infrastructure, Transport, Regional Development and Communications 2022, *Inquiry into National Freight and Supply Chain Priorities*.

2.3 Landside logistics (scope item 2 and 4)

Landside logistics access is a matter interconnected with industrial land allocation and urban encroachment, and the rest of the supply chain. It is a critical issue, that parties from across the supply chain addressed in their submission to the *Inquiry into National Freight and Supply Chain Priorities*.⁹

Ports can plan and invest in improved landside logistics, however for efficiency gains to be realised, the rest of the supply chain needs to be setup to be able to manage such increased capacity. It therefore a matter that needs to be examined in conjunction with the entire supply chain network.

Whilst the last mile is critical, the entire network needs to be viewed to understand where key issues lie. For example, at least one Ports Australia member faces the issue that whilst B-doubles can be handled by roads near the port, a minor section of road closer to the exporter has B-double constraints. This results in commodities travelling on less efficient trucks; travelling more kilometres to get to and from the said port; or bypassing the said port and accessing a port further afield along a road that has complete B-double access.

A similar issue is faced by several ports in regard to rail. Whilst many ports have rail access and the new Inland Rail will connect the eastern regions of Australia, the Inland Rail network has not been planned to connect with all key container ports across the east coast. This is a significant issue and needs to be re-examined by the Australian Rail Track Corporation in conjunction with the private sector. By addressing this now and ensuring these networks connect, it will remove the need for freight to be transferred from rail to road and vice versa, reducing costs and time for regional exporters and importers, and making Australian exports more competitive.

It should be noted that in certain instances road is a more efficient and prudent choice of transportation. For example, container imports are largely for metropolitan areas in close proximity to city container ports which means that these brief trips, between the port and the recipient, are sometimes best executed by road. Container exports, however, differ more in their origin. Where they are more regional, they can work more efficiently on rail.

Automation has been another industry and public focus, both at the port and on the supply chain network. There is a trend towards automation, and this is supported by Ports Australia, where appropriate. Key factors being where a clear cost benefit case can be established with efficiencies to be made, and safety not compromised.

Federal and state governments need to work with entities across the supply chain industry, in their planning for enhanced landside logistics, with rail being of note. Dedicated freight rail connectivity to ports is necessary but these rail lines must also connect with Inland Rail for optimal usage of both rail networks and to exponentially increase the value of each.

2.4 Optimised infrastructure usage (scope item 2 and 5)

Supply chain infrastructure optimisation means having flexibility to allow for infrastructure to be optimised to changing levels of demand. During COVID-19, demand of containerised imports increased significantly. Governments' flexibility in allowing for temporary measures for workplaces and for expedited freight distribution was necessary to meet the commodity needs of Australian businesses and the public. Examples of

⁹ Department of Infrastructure, Transport, Regional Development and Communications 2022, *Inquiry into National Freight and Supply Chain Priorities*.

these temporary measures included the removal of curfew restrictions to enable faster freight delivery, an increased limit for container stacking heights and employment of under-utilised passenger rail networks for freight deliveries. Ports Australia commends the flexibility by governments during COVID-19 and recommends that this flexibility be part of the ongoing functioning of Australia's supply chain network.

Optimised infrastructure usage is important to enabling greater efficiencies; and Ports Australia recommends that federal and state governments with industry examine opportunities to optimise infrastructure use, with the aim of retaining and enhancing supply chain flexibility.

2.5 Urbanisation and industrial land policies (scope item 2)

Each state has a container port located near its main urban area to enable the import and export of critical resources and commodities in an efficient manner. These ports are part of an interconnected supply chain that relies on other transport modes and distribution centres to make freight transportation as timely and cost-effective as possible.

Ports are facing increasing pressure nationwide to slowly reconsider the use of valuable industrial land for alternatives such as residential properties and the long-term negative consequences. As the supply chain is interconnected across Australia, the impact of not allocating or properly planning for industrial space in one jurisdiction could have consequential effects on the supply chain across the country. During the *Inquiry into National Freight and Supply Chain Priorities* numerous supply chain entities raised industrial land allocation as a critical issue.¹⁰

A result of proper planning means that land use can be maximised for the long-term benefits of the state. Given the diversity and number of supply chain partners, the role of state governments in developing planning policy that positions the state well for its future freight needs, is significant. By doing so, positive social and economic outcomes may be realised for industry and individuals, and in turn the state economy.

The *National Urban Freight Planning Principles* developed by all levels of government along with industry detail the principles that should be adopted in urban freight planning. Importantly these consider that state and local governments have the primary role in transport and land use planning, that freight networks continue to evolve, and that industry engagement is necessary to properly plan.¹¹

As outlined in the principles, urban land management approaches must identify current and plan for future industrial land needs, including freight corridors. The retain-and-manage approach adopted by New South Wales achieves this by locating the zones which are required to meet the freight needs of either today or into the future; and conserving this land to ensure that the state is well placed for an effective supply chain going forward. Residential and commercial land management is also critical; however, it is fundamental that industrial land needed is prevented from encroachment. Without a retain-and-manage approach, residential and commercial areas, and state and local governments, could be negatively impacted in the long term. Such long-term impacts could be in the form of delays to and higher costs of freight transport; increased road congestion; increased disturbance in residential areas; increased interference to commercial areas; and additional costly mitigation and management measures which will likely be borne by customers, whether they be individuals or businesses.

¹⁰ Department of Infrastructure, Transport, Regional Development and Communications 2022, *Inquiry into National Freight and Supply Chain Priorities*.

¹¹ National Freight and Supply Chain Strategy 2021, *National Urban Freight Planning Principles*.

It is imperative that all states and territory industrial land policies align with the *National Urban Freight Planning Principles*. The New South Wales government has shown initiative and forward thinking for the most populous and urbanised city in Australia with the retain-and-manage approach. Ports Australia thus recommends that other state and territory governments adopt similar policies to the New South Wales industrial land retain-and-manage policy.

2.6 National Freight and Supply Chain Strategy (scope item 4 and 7)

The *National Freight and Supply Chain Strategy* (the Strategy) details key national and jurisdictional approaches to enhancing Australia's supply chain. It was endorsed and adopted by the Council of Australian Governments' Transport and Infrastructure Council in 2019; and has been a prudent initiative that has led to improved stewardship of the sector.¹²

The Strategy was informed by the *Inquiry into National Freight and Supply Chain Priorities* which identified systemic issues affecting the efficiency of the supply chain and opportunities to address these. It is imperative that these structural issues be addressed to improve the long-term productivity of the supply chain and Australia's maritime logistics sector. Whilst COVID-19 has highlighted some weaknesses within the sector, underlying systemic issues need to be attended to, rather than attending to symptoms that have been brought about by the pandemic.

Many of the issues identified in this Ports Australia submission were also raised during the *Inquiry the National Freight and Supply Chain Priorities*, including digitalisation of supply chain interactions, coastal shipping reform, industrial land protection and guidelines for stevedore charges. Ports Australia thus recommends that the Productivity Commission examine the submissions made by various supply chain entities as part of the *Inquiry the National Freight and Supply Chain Priorities*; and that these are reaffirmed. It is an opportune time for federal and state governments to again come together with industry to revise the Strategy and associated action plan to place more emphasis on progressing the points made in this submission.

2.7 Other observations and recommendations

Observations and recommendations related to a number of other topics are addressed below. These topics have either been raised by the inquiry scope itself, or in government and industry work or commentary to date.

2.7.1 Specialised labour (scope item 3)

Australia is reliant on ports for critical trade, and as ports require very specialised labour, the workforce needs ongoing security that it can function without interference. Such security would provide reassurance to government, shipping lines and the public.

International travel restrictions from COVID-19 impacted the movement of maritime pilots, tug operators and vessel crew. These roles are highly specialised and rely on international and interstate fly-in fly-out (FIFO) workers. For example, a maritime pilot is qualified for a certain port, holding extensive shipping experience coupled with training over several years at a stationed locality. Due to this, there exists only a small number of pilots with expertise to navigate and steer a ship in and out of a specific port.

On 9 April 2020, National Cabinet provided a class exemption for non-cruise maritime crew to allow their transit to and from Australia and between jurisdictions without undertaking quarantine. In principle, this was a

¹² Department of Infrastructure, Transport, Regional Development and Communications 2022, *National Freight and Supply Chain Strategy*.

significant measure to assure the integrity of the supply chain. However, as states and territories could adopt additional protocols in conjunction with this exemption, in reality, this exemption was not implemented by all states and territories. Hence, continued difficulty ensued for some critical supply chain workers to attend their place of work without undertaking quarantine.

As the COVID-19 pandemic is enduring and similar supply chain disruptions may eventuate in future, Ports Australia recommends: the port workforce continue to be classified as critical; and specific exemptions made to ensure the critical port staff can travel to and from should an emergency situation occur.

Additionally, the sector will also continue to benefit from maritime skills support via:

- specific visas and apprenticeships;
- online continuing education e.g. pilots being able to undertake ongoing competency requirements remotely; and
- training initiatives such as those at the Australian Maritime College and the Pilbara Ports Authority maritime college which is in development.

2.72 Regulation (scope item 7)

As outlined in the introductory context, ports in Australia are heavily regulated entities, by federal, and state and territory government departments and agencies, including the Australian Maritime Safety Authority, the Department of Home Affairs, the Department of Agriculture, Water and the Environment amongst others. Ports Australia considers that overall, these regulations are necessary for the benefit of the nation, its economy, and people. However, attempts at greater federal oversight would likely have detrimental effects on logistics and productivity for both bulk and container ports, and therefore the economy.

2.73 Pricing (scope item 2)

It is recognised that freight costs, including sector fees and charges, has been specified in the scope of the Productivity Commission's inquiry. As mentioned earlier, the ownership and operating structures of ports differ significantly. Ports range from government owned corporations to private companies, and from landlords renting operations, to more vertically integrated entities that execute terminal operations. Pricing structures therefore differ considerably; however, they are informed by a port's requirement to make ongoing investments to maintain and improve on their assets. Ports Australia suggests, that should the Productivity Commission be interested in discussing port pricing that this be taken up with directly with individual ports and individual stevedores.

2.74 Benchmarking and performance (scope item 1)

International benchmarking of Australian ports has been raised within the inquiry scope. Described in the international context section, benchmarking of ports is being conducted internationally by the World Bank and IHS Markit, however sufficient revisions need to be made for this work to be valuable to industry and government. Ports Australia supports appropriate benchmarking that is suited to the complexity of ports and that is developed in close partnership with the sector. Such benchmarking would likely include a significant amount of context, case studies to exemplify best practice and be broken down by terminals. It is Ports Australia's belief that this may be best housed on the National Freight Data Hub as part of the *National Freight and Supply Chain Strategy*.

2.75 Vessel size planning (scope item 4)

Debate about vessel size often fails to acknowledge that over the years as vessels coming to Australia to meet demand have grown, so too has port investment in infrastructure. Australian ports have and continue to plan and invest in response to ship size predictions, to ensure vessels can be berthed efficiently and effectively. These decisions have been made in the port's own, the supply chain and customer interests. Upgrades include dredging and new or upgraded infrastructure such as moorings and cranes.

When port infrastructure enhancements are made to allow for larger vessel visits, enhancements are also necessary for the rest of the supply chain, and the collective costs of these enhancements are inevitably passed onto the customer. Accordingly, regular assessments of import and export demand are conducted, and prudent investment decisions made.

It is not only a matter of understanding what size ship build will be in future, but also a matter of understanding what the demand for exports and imports will be in Australia and along any shipping routes that Australia is a part. By understanding this, ports, supply chains and governments can determine the most cost-effective investment decisions for Australian businesses and the most flexible shipping services internationally. Rather than simply serving shipping lines commercial preferences.

An example of this, is where an upgrade costs a port or government hundreds of millions of dollars but the vessel size which requires these upgrades would only be an infrequent visitor. Such an example raises the important question of what an appropriate investment is.

In light of the above, Ports Australia encourages the ports to continue with their individual vessel size prediction work on a regular basis, and that careful consideration remain on the value of the investment for Australia.

2.76 Vessel traffic arrival systems (scope item 5)

Vessel traffic arrival systems have been an initiative developed for bulk ports to reduce vessel greenhouse gas emissions and improve safety. It has been raised by the Productivity Commission whether this initiative might also assist with optimised infrastructure usage. From a study conducted by the Australian Maritime Safety Authority the system has shown to have some time at berth reductions.

The *North-East Shipping Management Plan*, an environmental plan aimed at the Queensland ports, includes the following action, "Government agencies and industry to evaluate the safety and environmental risks, benefits and viability of a Vessel Arrival System at ports where ships spend extended periods at anchor".¹³ Ports Australia endorses the approach outlined in the plan of evaluating the system on a bulk port by bulk port basis, including analysing the cost benefits of implementing the system against other measures, and specifically homing in on whether its implementation would have considerable positive environmental, safety and efficiency impacts.

2.77 Coastal shipping (scope item 6)

Coastal shipping has been another subject of interest amongst the logistics sector for some time. It has been on the legislative agenda for a number of years and provokes competing views amongst the sector. Ports Australia is freight transportation mode agnostic, supporting what is in the best interest of the nation pertaining to individual commodities and or transport routes.

¹³ Australian Maritime Safety Authority 2019, Review of the North-East Shipping Management Plan.

Shipping does present as a low-cost transport option for *certain* commodities and routes, and an emission efficient freight transportation mode.¹⁴ It also potentially presents as an opportunity to make Australia's supply chain more resilient. Therefore, it is Ports Australia's view that artificial regulatory and other impediments to coastal shipping be removed and that policy and investment decisions that do not distort modal choice are progressed.

Coastal trading reform is a matter that has been progressed by the Queensland Government and also the federal Department of Infrastructure, Transport, Regional Development and Communications. The Department of Infrastructure, Transport, Regional Development and Communications in its *Coastal Trading Reform for Cargo Vessels Discussion Paper* (the Discussion Paper) set out a number of measures that maintain regulatory oversight of the industry, protect the freight routes of Australian flagged vessels, and simultaneously allow shipping to be utilised where it presents as the most efficient and economical transportation mode. These would reduce administrative burden on industry and government and allow shipping to better augment the domestic freight transport network; and are hence, supported by Port Australia. In October 2020, Ports Australia made a submission in response to this Discussion Paper and Ports Australia now advises that the proposed measures be implemented promptly by the Department of Infrastructure, Transport, Regional Development and Communications.

Ports Australia is appreciative of the consultation being conducted and this submission seeks to support the Productivity Commission, by outlining opportunities for enhancing Australia's maritime logistics system. As the Productivity Commission continues to canvass the many entities along the supply chain, it is expected that more detailed issues within the study's terms of reference may become apparent and that the Productivity Commission will progressively home in on certain areas. Throughout this process, Ports Australia would be pleased to respond with more information from a port industry perspective. If required, Ports Australia can draw upon the knowledge from its twelve communities of practice which focus on key aspects of port business and operations, ranging from *port operations* to *logistics* to *environment, sustainability, and planning*. For each of these community of practice, the most senior personnel related to that function participates from each port around the country, holding significant sector and supply chain knowledge.

¹⁴ International Maritime Organization (IMO) 2009, Prevention of Air Pollution from Ships - Second IMO GHG Study.

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