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PORTS & HARBORS

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ML1812R Meclift ML1812R Year of manufacture: 2017
D3397 Svetruck 13,6-120-32 Year of manufacture: 2008
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D3472 Linde H70D-01 Year of manufacture: 2010
E4773 Still RX60-50 Year of manufacture: 2011
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China continues to expand its presence overseas through One Belt, One Road. Meanwhile, the new US president considers different approaches to international trade

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Survival skills

Ports should embrace digitisation to remain competitive in a changing world

Susumu Naruse
Secretary General – The International Association of Ports and Harbors

I had the pleasure of attending the International Port Conference in Kobe this February, which commemorated the 150th anniversary of the port. While I was there I was reminded that Kobe is the birthplace of IAPH. Exactly 65 years ago, a preparatory meeting for creating IAPH took place in that city, followed by the first World Ports Conference in Los Angeles in 1955.

At that time, the Port of Kobe was the hub of maritime transport for the whole east Asia region. Decades on, the port gradually lost its position, being overtaken by emerging ports in the region such as Busan and Shanghai as economic and geopolitical environments shifted.

Major ports have, since the beginning of the year, been disclosing their 2016 throughput figures. Shanghai, which has shown extraordinary growth over the years, reported that it handled 37.13 million teu in 2016, representing year on year growth of just 1.6%. Its growth rate has showed signs of slowing down, with figures of 4.5% in 2014 and 3.5% in 2015. Shenzhen saw a decline of only 0.9%, while Singapore's throughput was flat at 30.9 million teu, having peaked in 2014 at 33.9 million.

> "Using big data could help ports minimise operational costs and environmental impacts"

NASA and NOAA reported that 2016 was the hottest year on record by average temperature across the world's land and ocean surfaces. Some industry observers have suggested that 2017 will be another pivotal year for ports because of a sluggish economy, geopolitical uncertainties, and prevailing anti-globalism. Under these changing climate and business circumstances, I think one strategy ports need to adopt is digitisation.

Using big data generated by shippers, carriers, and cargo handlers could help ports minimise the operational costs and environmental impacts on their surroundings. Fortunately, some IAPH technical committees have already noticed this: one is considering carrying out a survey on how to use big data and the internet of things for container terminal operations; another is going to invite businessmen from top IT companies such as Alibaba and Amazon to its meeting in Bali. I hope these conversations will offer some clues to as to how to revolutionise the port industry.

Face to face meetings and discussions have become increasingly important during this difficult period. I'd like once again to urge all the readers to join the IAPH Bali Conference this May. PH

Port updates

PORT LOUIS CONTRACT
Mauritius Ports Authority is making capital project investments to realise its dream of making Port Louis the preferred maritime gateway to the Indian Ocean. In September 2016, the authority awarded a USD43 million dredging contract to Belgian dredging, environmental, and marine engineering company DEME. That work is set to be completed in the middle of this year. It follows a USD115 million contract awarded in July 2014 to Strabag International and Archirodon Overseas for strengthening and extending the Mauritius Container Terminal by 240 m.

UP AND DOWN
Port of Rotterdam reported a year on year throughput increase of just 1.2%, from 4%. It's cargo throughput overall slipped 1.1% to 461.2 million tonnes. Antwerp saw a 2.7% increase to 214.06 million tonnes. Antwerp's container traffic topped 10 million teu for the first time last year as it ended 2016 on a total of 10.04 million teu.

HAMBANTOTA TALKS
Sri Lanka's prime minister, Ranil Wickremesinghe, has met officials of his government to finalise details of the sale of a majority stake in Hambantota Port to China. The government is determined to press ahead with the deal despite strong public opposition over increasing levels of Chinese investment and asset and land ownership in the south Asian country. The prime minister is due to visit Beijing in May to attend a One Belt, One Road summit. The two countries are working on a free trade agreement that Sri Lanka hopes will be finalised this year.

APMT

Crane operator soars above containers at APMT Bahrain

APMT profit falls by one-third

Despite its extensive cost-cutting and global throughput rise, APM Terminals (APMT) reported a 33% drop in profit in 2016, to USD438 million.

Maersk Group said its global terminal operating arm, with its headquarters at The Hague, handled 37.3 million teu last year, 3.7% more than in 2015.

Most of that increase was tied to its acquisition of Spain's Grup Maritim TCB, which added 2 million teu in equity-weighted volume and expanded APMT's network to 73 terminals in 69 countries. Like-for-like throughput expanded by 1% in 2016.

APMT reported a 5.7% return on its USD7.97 billion of invested capital, down from 10.9% in 2015. It invested an additional USD1.5 billion last year, mainly in the TCB acquisition and close to double the amount invested in 2015.

It said the relatively poor financial performance resulted from consolidation in the liner shipping sector and challenges in key markets in Latin America, northwest Europe, and Africa.

The low oil price harmed APMT's terminal operations in west Africa, as countries such as Nigeria and Angola lacked the hard currency to pay for imports. Also, gateway and transhipment volumes at ports in northwest Europe were flat, as new capacity came online.

"In general, but particularly in north Africa and Latin America, the shipping line consolidation and alliance re-alignment impacted several APM Terminals facilities, as alliances increasingly selected competing terminals according to their equity stakes," its results announcement said.

Industry consolidation in general harmed terminal operations, it said, because fewer alliances and lines meant a loss in bargaining power for many terminals. This factor contributed to a 9% fall in average revenue/move, from USD218 in 2015 to USD198 in 2016.

The company said cost initiatives saved it about USD150 million in 2016 and helped to cut unit costs to USD172/move, from USD181 a year previously.

"Operational efficiency initiatives included deployment of advanced optimisation tools, increased use of global shared services, consolidation and sharing of administrative roles and functions between terminals, and other operational excellence projects," it explained.

The port sector faced structural challenges in 2016 as a result of the cascading of larger vessels and sluggish demand, it added.

"The increased load on the terminals triggers requirements for upgrades of the terminal infrastructure, equipment, manning, and planning capabilities, leading to more capital expenditure and operational cost, but lower utilisation." A further challenge was a rise in terminal box capacity related to greenfield and expansion projects, which create oversupply in many markets.

"This is especially the case in northwest Europe, Scandinavia, and the Baltic countries, where the slow economic recovery is not matching additional capacity being introduced," it noted.

South and southeast Asia were identified as regions with potential for the terminal operating business. APMT also expects more terminal utilisation in China because of increases in consumer imports.

APMT said it was pursuing synergies with Maersk Line, the parent group's container transport unit, including joint initiatives to improve productivity and reduce costs, and that it was working on closer co-operation and strategic partnerships with other shipping lines in key locations.

On 1 November, following a strategic review of the business and operations of Maersk Group, Morten Engelstoft replaced Kim Fejfer as CEO of APMT.

Contship sees increase in volumes

Contship Italia Group, which operates container terminals in Italy and Morocco and a growing intermodal logistics network in Italy and Europe, has reported a 1.7% increase in volumes handled at its marine terminals in 2016.

Combined throughput at the company's five Italian terminals and the Eurogate Tangier facility in Morocco reached 6.39 million teu in 2016, from 6.28 million a year earlier. The company, based in Melzo near Milan, also said transhipment volumes were lower than expected at its main terminals in Tangier, Cagliari in Sardinia, and Gioia Tauro in Italy's southern province of Calabria.

Contship's intermodal business performed well in 2016, as both transported volumes and the number of trains operated climbed. Improved load factors on domestic trains in the second half of the year and increased routeing of cargo to south and central Europe through the company's southern gateway service resulted in expansion of its market share in Italian maritime intermodal business to 25%.

"Delivering fully integrated port-to-door solutions for the global supply chain is Contship's main objective," group president, Cecilia Eckelmann-Battistello said.

A sizeable chunk of Contship's intermodal business is focused on the Ligurian gateway of La Spezia, where it operates its Hannibal intermodal service. The service transported more than 270,000 teu in 2016, a rise of more than 9.3% on 2015.

Contship expects the Hannibal service to continue to grow as it enters new commercial partnerships, improves domestic train schedules, and invests more money at its intermodal hub in Milan during 2017. The company sees port-to-door services as an effective means to compete with northern European ports, with transit time savings of up to 20% on cargoes shipped through La Spezia to central Europe.

Jolke Helbing of Ocean Shipping Consultants told the Journal of Commerce Container Trade Europe conference in Hamburg that the practice of 'moving the port closer to the hinterland' was central to the increasing competitiveness of Italian and Mediterranean container port gateways.

"Providing shippers with distribution facilities at the port means the cargo is already in the supply chain. The port optimises the 'decoupling' point in the chain and so ensures no time delays, failure to deliver product, or extra costs."

Ship-to-rail operations at Contship's Ravenna facility on the northeast coast, a historical trading hub linking the eastern Mediterranean with the Black Sea, also grew strongly in 2016, with annual volume up by 12%. The Ravenna facility has a strong focus on perishable and refrigerated goods.

The development of Contship's intermodal services has been supported by considerable administrative and operational reform in the Italian ports sector in recent years. This includes the streamlining of port governance in the country, including a 40% reduction in the number of port authorities and an 80% reduction in the number of executives overseeing port operations.

Of Contship's five Italian terminals, the busiest is the Medcenter in Gioia Tauro, which handled about 2.8 million teu last year. The company said cost reduction measures at the facility contributed to higher volumes in 2016.

"Further rationalisation and cost-saving initiatives are required in 2017 to consolidate the trend towards recovery and ensure the medium- to long-term financial strength of the company," Contship said.

The Salerno container terminal south of Naples performed well with annual throughput growth of 10%. A dredging programme is under way to enable the facility to accommodate vessels up to 10,000 teu.

Cai Mep receives 18,000 teu vessel

Margrethe Maersk is an 18,000 teu ship and one of Maersk Line's Triple E class vessels deployed on the Asia-North Europe AE5 service. The megaship called at the APM Terminals-operated facility, discharging cargo at Cai Mep International Terminal from Europe that was destined for Vietnam and other Asian countries. It is the largest vessel in Maersk Line's fleet, and the largest ever to call at a Vietnam port.

While a Maersk spokesman said it was still "early days", the reasoning is that *Margarethe Maersk* will operate within the 2M Alliance and continue to serve the Asia-North Europe trade.

The port of Vung Tau is in Vietnam's Ba Ria-Vung Tau province, southeast of Ho Chi Minh City. It wants to position itself as a transhipment hub, and the ability to handle the megaships will be a key part of this strategy.

Giang Nguyen, managing director for Maersk Line Vietnam and Cambodia, said Vietnam's economy has grown by 8–10% over the past five years and it was projected that the country's GDP would increase by an average of 6.5% a year until 2020.

Port **updates**

KHALIFA ZONE LURES

An industrial and free zone in the hinterland of Khalifa Port Container Terminal at Taweelah, Abu Dhabi, is boosting hopes of attracting significant Asian investment as part of China's One Belt, One Road strategy. The 417 km^2 Khalifa Industrial Zone Abu Dhabi announced that 20 new leases had been signed last year for projects at the site, bringing the total to 130. A 100 km^2 free zone in Kizad will cater for trade, logistics, manufacturing, and consumer goods.

JAKARTA PORT CHANGES

Indonesia is trying to improve the economics and efficiency of its maritime logistics sector. It is implementing a plan to enable ports to capture a larger share of transhipment business related to domestic cargo. It is also introducing a series of regulatory changes to support more investment and private-sector participation in maritime logistics and reduce cargo dwell times at ports throughout the archipelago. An agreement to jointly develop a new USD3 billion deepsea port with Japan has also been signed.

SINGAPORE MIXED BAG

Last year was a mixed bag for Singapore's ports as Shanghai in China widened its lead over the city-state's container throughput, but oil-related cargoes soared to record volumes. After a record year in 2014, Singapore's container throughput fell by 8.7% in 2015 and a further 0.06% to 30.9 million teu in 2016. But Singapore remained the world's busiest transhipment hub, with the box ship arrivals in 2016 up by 1.2%.

Port **updates**

SINGAPORE FINES
The Maritime and Port Authority of Singapore has fined an unlicensed bunker craft operator SGD81,000 (USD57,100) for the unauthorised provision of services. New Ocean Maritime was convicted of operating in the port without a bunker craft operator licence between 3 January and 28 March 2015. The company was found to have used the bunker craft operator licence issued to another operator, Seaquest Tanker.

CHINA BOX PORT GROWTH
China's top ports booked full-year box throughput growth of 3% in 2016, with the top eight ports combined handling more than 153.3 million teu, from 148.8 million teu in 2015. With the exception of Shenzhen, where full-year volumes fell by just under 1%, all of the top eight container ports posted gains, with Guangzhou, Qingdao, and Xiamen clocking the greatest growth. Throughput at Guangzhou expanded by 8% to just under 18.9 million teu.

COSCO UPS PORT STAKE
COSCO Shipping Ports, the port operating arm of COSCO China Shipping group, is raising its stake in Qingdao Port International, operator of Qingdao port. In a filing to Hong Kong Exchanges and Clearing, COSCO Shipping Ports said its subsidiary, Shanghai China Shipping Terminal Development, will pay CNY5.8 billion (USD844 million) for the shares in Qingdao Port International. This will be paid for through a combination of cash and COSCO Shipping Ports shares in Qingdao Qianwan Container Terminal. The transaction will raise COSCO Shipping Ports' stake in the port from 1.59% to 18.41%.


OT Africa Line

Luanda, where PT Terminals operates Songster Container Terminal, is Angola's primary sea gateway

China backs Angola port

Angola is building a deepsea port in its northern Cabinda province as part of a push to boost industry and trade to compensate for the pinch of low oil prices.

The scheme is being funded by a USD600 million loan from China and built by a Chinese construction company.

Angola's sovereign wealth fund, Fundo Soberano de Angola (FSDEA), which was set up to generate sources of revenue other than oil, is investing USD180 million in the project.

Construction began last year. The first phase is expected to be complete by the end of 2017. This will include a terminal with a 630 m quay and an alongside depth of 14 m. It will be connected to the shore by a 2 km bridge. A ship repair facility and free-trade zone are also being built during the first phase. FSDEA said operating concessions for private terminal operators were likely to be offered before 2020.

Angola is Africa's second-largest oil producer and the commodity accounts for about 45% of gross domestic product (GDP) and 95% of exports. The low oil price has had a major negative impact on the country's foreign exchange earnings and cargo throughput volumes.

Luanda, where Maersk-owned APM Terminals operates the Sogester Container Terminal, is the country's primary sea gateway. It handled 1.821 million tonnes of cargo in the third quarter of last year, a fall of about 9% against the same period in 2015. Containerised cargo volumes fell by 11% and non-containerised cargo was down 4%.

Containerised cargo volumes fell 35%, or 1.7 million tonnes, to 3.1 million tonnes in the first half of 2016. While the price of oil recovered from a low of below USD40/barrel in the first quarter of 2016, IHS Markit's energy division forecasts it will not rise above USD60/barrel until the end of 2018.

"Investments in the industrial sector and infrastructure to support trade in the sub-Saharan region have shown high rates of profitability and resistance to the risks associated with the countries on our continent," FSDEA board chairman José Filomeno dos Santos said.

It is hoped that the project will help to improve the competitiveness of Angola's trade system. Angola currently ranks 183 out of 190 countries in the World Bank's 2017 Ease of Doing Business survey. Time and cost required for border compliance export processes are 240 hours and USD735, respectively, compared with an Organisation for Economic Co-operation and Development (OECD) average of just 12.4 hours and USD150. Time and cost for border compliance import processes are 276 hours and USD935, which compare with an OECD average of 9 hours and USD115.

The project is expected to generate about 20,000 jobs, FSDEA said. Allocating capital to maritime infrastructure and logistical and industrial support in Angola would allow the diversification of other investments in the international financial markets that are within FSDEA's portfolio, said dos Santos.

FSDEA has assets of about USD4.8 billion under management and the port investment is part of its USD1.1 billion infrastructure fund.

The province of Cabinda is separated from the rest of Angola by a narrow strip of land that belongs to the Democratic Republic of the Congo. The province is also bordered by the Republic of the Congo.

Hamburg hopeful as Elbe dredging agreed

Strong growth in the second half of 2016 supported a recovery in full-year container volumes and revenue for Hamburger Hafen und Logistik AG (HHLA), the largest terminal operator in Hamburg.

Its preliminary figures show there was an increase in throughput of 1.5% in 2016.

HHLA handled 6.7 million teu in 2016: 6.4 million teu of that at the Hamburg terminals and the remainder at Container Terminal Odessa in Ukraine.

Hamburg's other major container terminal, which is operated by Eurogate, handled 2.3 million teu last year.

Hamburg has been losing ground to competing north European ports in recent times because of the insufficient depth of the Elbe waterway, which limits calls from ultra-large container vessels to narrow time windows.

The port has warned for years that failure to deepen access to the open sea would result in a continuing decline in volumes because it can only handle the largest fully loaded vessels at high tide.

Hopes are high that a decision by Germany's top administrative court to approve the dredging of the Elbe could lead to improved fortunes for the north German city's port operation.

Environmental groups are objecting to the dredging of the river but the court said work could proceed provided a number of environmental measures were addressed.

HHLA booked revenues of EUR1.2 billion (USD1.27 billion) last year, slightly up from EUR1.1 billion of the previous year. It reported an operating profit of EUR163 million.

The terminal operator said it lost tens of millions of dollars per year because of draught-related shipping delays.

The dredging work would cover 130 km of the Elbe and would allow ships with 14.5 m draught to reach the terminals, increasing the upper limit from the current 13.5 m.

HHLA's intermodal business grew strongly last year, by 6.8% to 1.4 million teu. Much of the growth was in cargo carried by rail, which expanded 8%, while truck volumes expanded 2.9%.

Port **updates**

HMM TO PURSUE SALE

Although US courts could block the sale of Hanjin Shipping's terminal assets, Hyundai Merchant Marine said it would go ahead with plans to buy a 20% stake in Total Terminals International (TTI) and Hanjin Shipping TEC. It expects to spend USD15.6 million on the deal.

TTI runs a container terminal in Long Beach and was jointly owned by Hanjin Shipping and Mediterranean Shipping Company (MSC). Hanjin Shipping TEC provides terminal equipment to Hanjin Shipping's terminals in Long Beach and Seattle. MSC also plans to acquire Hanjin Shipping's terminal assets in Seattle.

Port updates

ANTI-CORRUPTION PLAN
Hadiza Bala Usman, managing director of the Nigerian Ports Authority, has announced plans for measures to bring down port costs and address corruption, including the opening of an anti-corruption office at its headquarters. The office will be administered by an advisory panel on fighting corruption, set up by Nigeria's president last year. It also will look at reforming the criminal justice system. Corruption is considered the main factor in making Nigeria's ports among the world's most expensive.

SEOUL CONSOLIDATION
South Korea is pushing for consolidation among the country's terminal operating companies, which were created in 1997 to spur efficiency. Forty such companies now operate 45 terminals in 10 ports – and are intensely competitive, even though they may have the same parent company. The government wants terminal operators to merge legally and integrate port operations. The government has proposed to reduce their leasing fees if their businesses amalgamate.

OMAN DEVELOPS DUQM
Dutch dredging and marine civil engineering company Royal Boskalis Westminster has received a letter of intent on a EUR480 million (USD510.6 million) contract to develop Duqm's port in Oman. The port has a strategic drydock and industrial free trade zone in the Al Wusta region between Muscat and Salalah. The contract includes the engineering, design, procurement, and construction of a bulk liquid terminal berth.

Jurong trains for skills

Jurong Port has announced the launch of Jurong Port Academy, which aims to enhance port workers' abilities through the use of new technology and innovation.

The academy aims to be the key training partner for Singapore's port industry, through a combination of classroom education and hands-on training to increase individual port workers' productivity. This will then improve overall productivity and lead to safer operations while increasing the industry's competitiveness.

The academy cost SGD2.8 million (USD1.92 million) to establish, with funding support from Singapore's Maritime and Port Authority. It provides existing port workers with simulator training facilities, classroom activities, and hands-on cargo handling training in a 450 m^2 open area located within Jurong Port.

The academy will continue to seek advice from representatives of the stevedore community and the local union for its training activities.

Ooi Boon Hoe, chief executive officer of Jurong Port, said, "One of the port's key objectives is to upskill the workforce, develop rewarding career pathways, and attract new talent to the industry."

Companies in the industry have expressed their support for the academy, calling it a timely move that was long awaited. Michael Goh, the port's chief human resources officer, told a media briefing that the industry's ageing workforce was a concern and attracting new talent had been challenging for at least the past five years.

"What we hope is that … by upskilling, by creating better career structure, [and by] better opportunities for the workers, people who are considering a job in the port can see that this can actually be a good and lucrative career and they will be more prepared to [join]."

Given global economic conditions, Ooi said Jurong Port expected its throughput to remain flat, as "we don't expect things to get much worse, but there is not much upside we can talk of right now either".

It is, however, an opportune moment to introduce changes to the industry, and Jurong Port Academy is one such example. "This is effectively the time we can get everybody in line … and when the upswing comes, the multiplier effect can really kick in," said Ooi.

Established in 1965, Jurong Port is a multipurpose port that can handle general, bulk, and containerised cargo. Total general cargo throughput at the port was more than 7.82 million tonnes for financial year 2015.

Jurong Port

Forklift wharf training at Jurong Port Academy

CHEC awarded contract at Puerto Cortés

Operadura Portuaria Centroamericana (OPC) has awarded China Harbour Engineering Company (CHEC) a contract for the first-phase expansion of the Specialised Container and Cargo Terminal (SCCT) in Puerto Cortés, Honduras.

The country's transport and commerce centre, Puerto Cortés is on the Atlantic north coast of Honduras. It is one of the very few deepwater ports in Central America and one of the region's largest and best-equipped ports, handling about 85% of shipments to Honduras, plus 10% to neighbouring El Salvador and 5% to Nicaragua.

The first-phase expansion builds on that and includes building a 350 m berth with an alongside depth of 15.5 m, two trestles to be connected with the existing yard, and capital dredging of up to 14 m in the naturally well-protected bay.

The new berth will be equipped with two super post-Panamax quay cranes, bringing OPC's total number of such cranes to six. The expansion is scheduled for completion by mid-2018.

OPC is a subsidiary of Philippines-based International Container Terminal Services Inc.

DPW proposes Senegal version of Jebel Ali

Global terminal and economic zone operator Dubai Ports World (DPW) has proposed a plan to Senegal to develop a multipurpose port and integrated economic zone in the capital, Dakar.

The scheme followed the signing of an agreement between the Dubai-based company and Senegal in November 2015.

The port would be situated next to the new Blaise Diagne International Airport, and fits in with DPW's strategy of replicating its successful Jebel Ali business model in other locations around the world.

That model consists of high-quality port infrastructure integrated with industrial zones and supported by good hinterland connectivity. Full details of scope, estimated costs, and timelines for the new scheme were not revealed, but DPW said it would include the most advanced technologies and facilities in Africa and globally.

"Our flagship Jebel Ali Port and Free Zone is a classic case study on how to get the right connectivity, multimodal transport, and smart digital technology combining," company chairman and CEO Sultan Ahmed Bin Sulayem said after meeting Senegal's president, Macky Sall.

Long-term partnerships between governments in Africa and private sector players such as DPW would support much-needed growth in African economies, Bin Sulayem said, adding that such accords "can help Senegal and African nations become economic powerhouses over the long term". He pointed to an impact study commissioned by DPW and carried out by Ernst & Young that found DPW's existing terminal at Dakar supported the livelihoods of 31,000 Senegalese nationals and facilitated a 63% increase in imports and exports in 2010–15.

Container handling improvements derived from that scheme included a doubling of average vessel moves/hour and fivefold reduction in truck turnaround times, the study added.

"These results enable trade by allowing the efficient movement of resources and support the diversification of economies away from agriculture and hydrocarbons, to more manufacturing, industry, and services," Bin Sulayem declared.

Dakar handled 540,000 teu in 2016, double its 2008 throughput.

A report issued last year by IHS Economics noted that Senegal had made good progress in establishing itself as a regional trade hub and said improved trade infrastructure would be an important part of building on this position.

"The country's national development plan, the Emerging Senegal Plan, aims to strengthen the position it already holds as an important trade hub in west Africa," said Ama Baidu-Forson, senior economist for sub-Saharan Africa at IHS Economics.

"As the economy and regional trade expand, adequate infrastructure has become increasingly important, as cargo transiting to and from Mali represents a large share of global transit through Dakar's port."

Implementation of the Emerging Senegal Plan is expected to enable the country to achieve higher growth over the medium to long term and to expand regional trade significantly, the report said.

In November, Bin Sulayem said Africa was one of the most promising growth markets in ports and logistics for the medium to longer term.

DPW planned to reorganise its global business this year to increase its focus on regions and pursue its strategy of replicating the Jebel Ali business model in more locations, he added.

"A major challenge in Africa is effectively linking ports with hinterlands," Bin Sulayem explained. "To ship a container from China to Mombasa costs USD500, but to send that container onwards to Kigali costs USD5,000. The connection between ports and hinterlands is not efficient, and we are working with the stakeholders involved to improve that."

DPW handled 63.7 million teu at its global terminals in 2016, representing like-for-like throughput growth of 2.2%. Strong growth in Asia-Pacific and Europe resulted in 6% year-on-year growth in volumes in the fourth quarter of 2016.

A double-digit throughput increase in Asia-Pacific, together with strong growth in Europe, boosted the quarter's volumes to 16.1 million teu, up from 15.2 million teu a year earlier.

> "Our flagship Jebel Ali Port and Free Zone is a classic case study on how to get the right connectivity, multimodal transport, and smart digital technology combining"

Sultan Ahmed Bin Sulayem, *Chairman and CEO, DPW*

Port **updates**

FIRST FOR ENVISAN

Envisan has been awarded its first contract, to reduce pollution at Norway's port of Trondheim and reuse the subsequently treated dredged sediments to reclaim a new harbor area of about 7,000 m^2. Envisan, the environmental subsidiary of Jan De Nul Group, only recently became active in Scandinavia.

HMM ACQUISITIONS

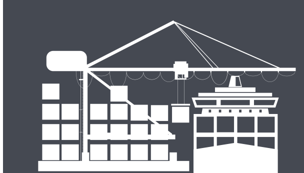
Reborn South Korean liner operator Hyundai Merchant Marine (HMM) plans to acquire container terminals in southeast Asia as it gears up to replace Hanjin Shipping as South Korea's flagship carrier. Having escaped receivership by raising USD1 billion in asset sales and renegotiating payments to bond holders, HMM plans to acquire box terminals in Vietnam and Indonesia to shore up its business.

BOX TRANSPORT ACCORD

Singapore's transport ministry and PSA Corporation have signed agreements with Scania and Toyota to develop an autonomous truck platooning system to transport containers between the country's container terminals. The accord covers design, development, and testing of a system involving a human-driven lead truck at the head of a convoy of driverless trucks.

SUEZ SHIPS DROP AGAIN

The number of ships transiting the Suez Canal continued to drop last November, with 35 fewer vessels using the waterway than a year earlier. This was the ninth month in a row when the number of ships using the canal was down.



Two assumptions about the future of ports

Ports cannot invest confidently unless they have an idea of what will be expected of them in future, writes *Fairplay's* chief maritime correspondent, ***Richard Clayton***

Shipping confidence is low and shipping market cycles are likely to continue to be weak in 2017. So what are the prospects for ports and terminals that serve this depressed business sector?

The current scenario for operators is well known: margins are thin and investment to meet evolving vessel sizes is under pressure. Ideally, ports should be speculating beyond 2017 to 2020 or thereafter, and should try to identify the drivers of change. In the words of a Canadian ice hockey adage, "You should skate where the puck is going to be, not where the puck has been."

But how can we forecast, finance, build, and operate a huge infrastructure project for the next generation when the assumptions we make are being changed month after month? Some of us would be happy to whisper, *sotte voce*, that we will happily take the plaudits for forward thinking because we know we won't be in position to take the flak. But most of us find that attitude unsettling. The success of the shipping industry over the coming generation depends, to some extent, on our attitudes and assumptions, and we couldn't live comfortably in retirement if it were seen that our lack of foresight led to ports' inability to handle the evolving ship types and sizes of the 2020s and 2030s.

I'm going to identify two assumptions that I believe will inform port investment over the next decade – ports in relation to the digital revolution and its role as a key player in the supply chain.

First, ports will need to align themselves with the digital revolution. It's very expensive and time-consuming to rebuild infrastructure, and the time taken to do so is lost business for port authorities. So if you can't redesign the quayside, you'll have to rethink the way cargo handling works. Shipping is creeping, albeit with reluctance, towards remote operations – however, the initial euphoria surrounding automation seems to be waning. Technology is willing but acceptance is weak.

Nevertheless, it is pretty much accepted that in the medium term ships will have a greater degree of satellite connectivity, which will allow closer connections between ship and shore; connections that mean decisions will be taken in an office somewhere rather than on the bridge, and connections that mean many roles on board ship will have to change.

This development will also become manifest within ports. In April last year, US labour secretary Thomas Perez and secretary of commerce Penny Pritzker inspected Port of Hamburg, including its automated operations at Container Terminal Altenwerder. Perez made some telling comments, stressing the importance of US ports leveraging technology to keep pace with intensifying competition. Port of Los Angeles and Port of Long Beach have already begun to invest serious money in projects that bring in automation to increase capacity and efficiency. But only here, and in Bayonne, New Jersey, and Port of Virginia's Virginia International Gateway are there any signs of automation and semi-automation.

In Virginia, the port authority said automated stacking cranes "have revolutionised the efficiency of real estate for container storage and handling while creating a more environmentally friendly and safe environment". Advanced equipment includes automated gate entry systems and automated guided vehicles and straddle carriers. Elsewhere, automated mooring technology, onshore power, and crane systems are in place. Kieran Ring, chief executive of the Global Institute of Logistics, believes good port management in the 21st century will do everything it can to incorporate the latest technology. Decision-makers and stakeholders will view technology as the obvious, if immediately expensive, solution to many problems, including high labour cost and unrest and limited storage areas.

Automation cannot be restricted to the quayside, but should instead be rooted in the entire port environment, right to the gate. It will encourage greater co-operation with ships at sea and hauliers inland

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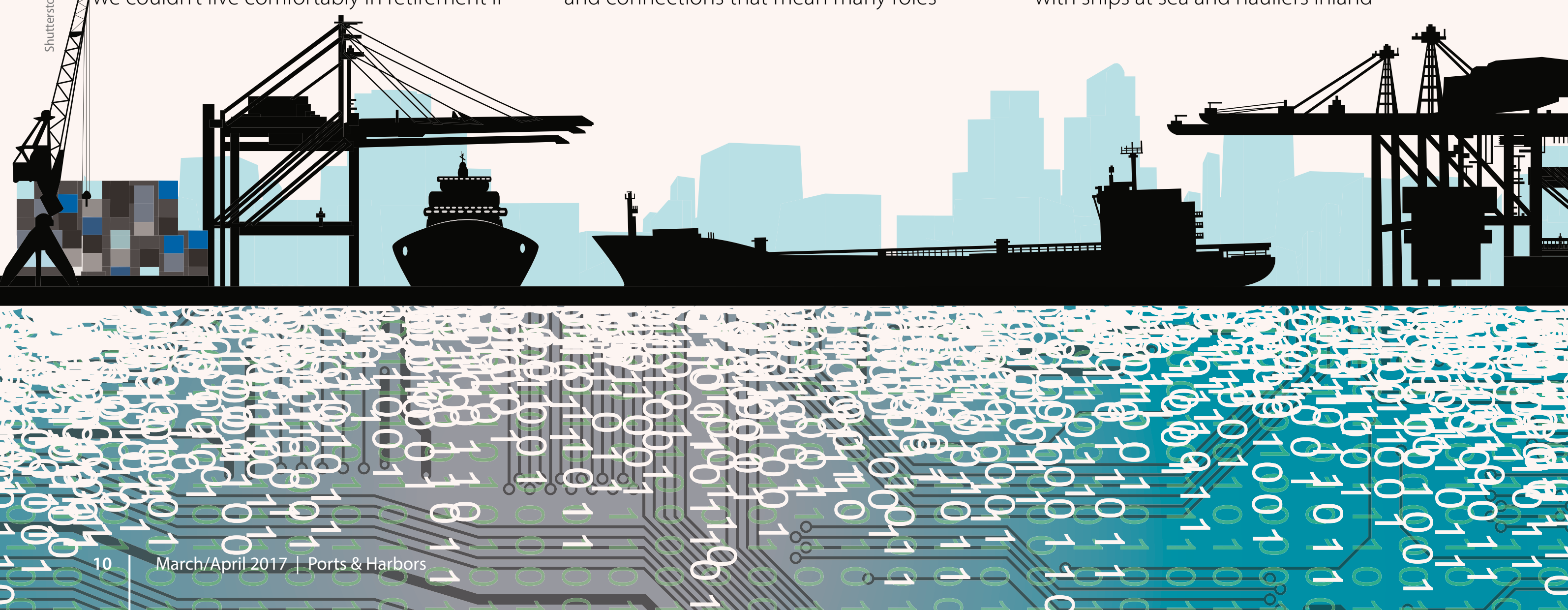


in building digitalised container flows. Port logistics, terminal assets, and vessel services will become more integrated as data are shared. The new Victoria International Container terminal at Melbourne will feature six new-Panamax robotic ship-to-shore gantry cranes linking with automated yard cranes in a paperless terminal; Liverpool 2, Peel Ports' new development, combines AutoGate technology with the Navis N4 operating system. The aim of both is to conduct many transactions digitally before trucks get anywhere near the terminal, which increases security, improves safety, reduces risk, and saves time spent completing manual checks.

> "Automation should be rooted in the entire port environment, right to the gate"
>
> **Richard Clayton**
> *Chief maritime correspondent,* Fairplay

The container sector works best when throughput is high and actions are repetitive, so it makes sense for it to receive much of the initial digital budget. But there's no reason why elements of tanker, dry bulk, ro-ro, and coastal shipping can't benefit from digital capability. I imagine cruise shipping will move along the digital lines of the aviation world, although certain requirements are better done by people than machines.

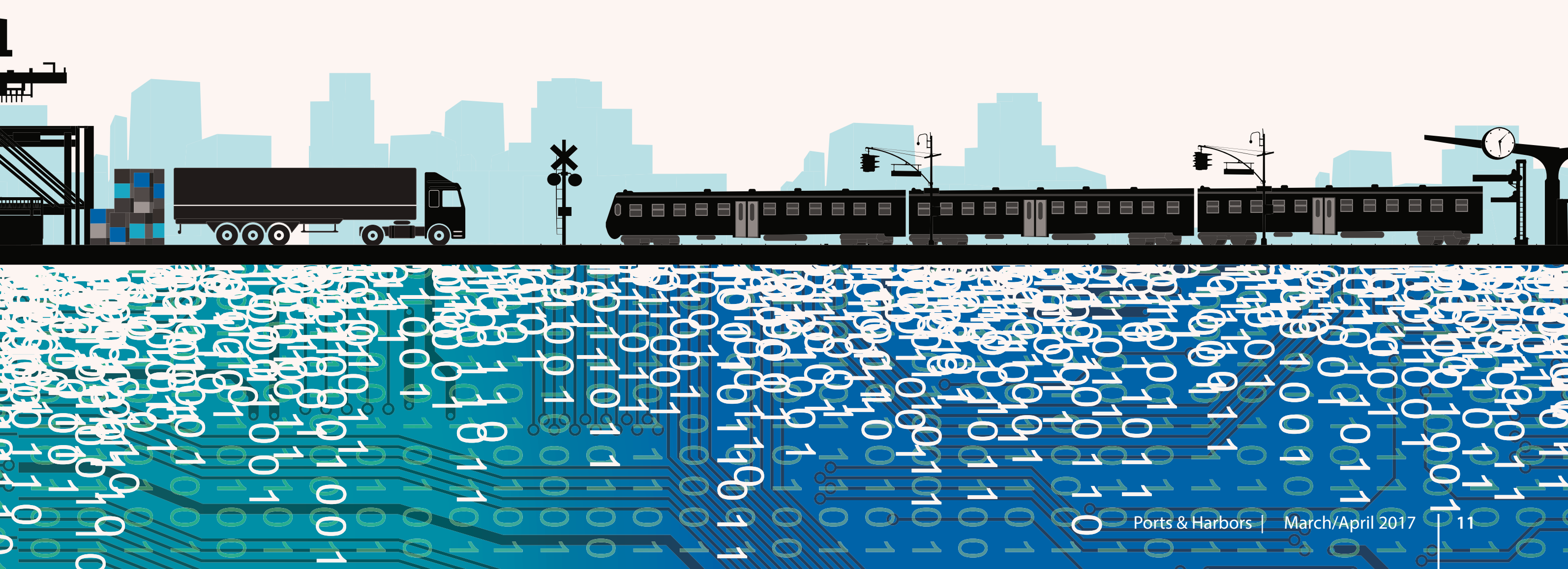
In order to smooth the flow of the supply chain, port authorities are improving transparency, visibility, and collaboration within the port hinterland and with other ports. Instead of thinking of the port system in isolation, port managers are thinking about their facility as part of a wider, digitally connected network, combining the water-side and land-side parts of the supply chain. Ring comments that while automation of certain functions within the port business is vital, that's not the goal. The goal is connectivity from supplier and manufacturer to dealer and consumer. Ports are one part of that chain and, however much we invest to tackle the issues around cargo handling, the time and cost saved could be lost upstream or downstream if we fail to co-ordinate.

There's a long way to go before either shipping or ports see themselves as one of the many elements of a chain. So the question is: what's the most effective way to understand the chain, the several links in that chain, and the role played by each link? One way is for a port to undertake an audit of just how 'smart' it really is. A review by the Port of Virginia this year found a lot of room to improve the impact automated terminals could have on the entire logistics chain.

Linking truck appointments to an automated container facility where containers are staged in anticipation of the arrival of trucks could eliminate congestion and reduce truck turn times to the 30-minute range. Inventories for beneficial cargo owner stakeholders can be reduced by a matter of days by their ability to rely on better intermodal logistics. These reduced inventories can translate into reduced carrying costs. And this same principle could be applied to rail intermodal operations, which would feed through to better use of rail wagons, tracks, and marshalling yards and, ultimately, a more predictable flow of goods.

The data to underpin such thinking are now becoming available to analysts with the increasing use of sensors and satellites. No one is saying sensors will be 100% reliable, certainly not in the early stages, and there are bound to be teething problems with satellite connectivity. However, 'smart' increasingly means business, and business means improved margins. So for the future of the port sector, these assumptions are connected.

Better data will generate improved connectivity, which is the precursor to thinking of the port as an integral element in a chain. The digital revolution will be positive for this understanding of the supply chain because it will enable the efficiencies of the connected port to feed both upstream and downstream, and allow improved efficiencies from connected sectors to breathe new life into ports. And a more efficient supply chain, with ports working in co-operation with regional rivals, as well as working in competition with them, will, without any doubt, act more responsibly as regards the environment. PH



China is trying to diversify its exports away from the US

Protectionism v globalisation: a tale of two superpowers

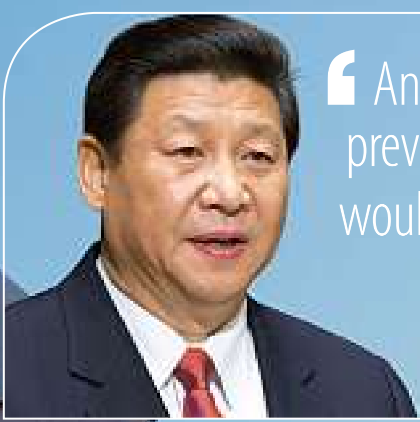
As President Donald Trump proposes tariffs on Chinese products, China continues to seek new opportunities through One Belt, One Road, reports ***Ken Gangwani***

China and the United States, two of the world's most influential and powerful nations, are taking very different tacks in their policy-making. China has, since 2013, been presenting an outward-looking perspective, seeking international trade and investment opportunities through its One Belt, One Road (OBOR) strategy.

In contrast, in his first week in office, the new US president, Donald Trump, abandoned the US-led Trans-Pacific Partnership between 12 Pacific Rim nations. Last May he Tweeted his intention to do so if he took up office, to "protect the American worker".

As Trump maintains his protectionist rehtoric, China is looking to further interconnect its trade through globalisation. Chinese president Xi Jinping told a forum in Davos, Switzerland, in January, "Any efforts to try to prevent globalisation would not succeed. It is true that economic globalisation has created new problems, but this is no justification to write economic globalisation off completely. Rather, we should adapt to and guide economic globalisation, cushion its negative impact, and deliver its benefits to all countries."

If Trump follows through on previous talk about a 45% tariff, US companies in China will face some level of retaliation from the Chinese government, Daniel Yip, deputy chairman of the Federation of Hong Kong Industries (FHKI) told *P&H* in January.



Images: Shutterstock

"Any efforts to try to prevent globalisation would not succeed"

Xi Jinping
Chinese president

"They will do it the direct way or indirectly. They may not slap on tariffs but they may make it difficult for US tourists to visit China and reduce Chinese tourism to the US, prevent US movie stars and singers from promoting their shows in China, encourage their students to study in places like Australia instead of the US, and make it difficult for US companies operating in China by increasing the level of inspection related to hygiene and taxes and by making police raids."

Willy Lin, chairman of the Hong Kong Shippers' Council, believes China will not retaliate unless there is a shift in its economic policy. He told *P&H,* "It will tolerate as much as possible."

"The US tariffs would hurt low-value products from China but the country is already moving towards manufacturing of high-value products," Lin said. China's low-value-product manufacturers have already been moving out of the country to places such as Vietnam, Myanmar, and Cambodia.

"The US is not going to impose tariffs on these small countries, so low-value Chinese products will continue to be available in the US. Trump cannot stop Myanmar, Cambodia, or Vietnam." According to World Bank figures, 18% of China's imports and exports are with the US.

Nor is there a guarantee that tariffs on Chinese goods would result in more US manufacturing activity – not when developing nations such as Vietnam, Cambodia, and Mexico have spent years building a case as viable alternatives to China for production.

"Tariffs on imports from China will not serve as a magic wand that brings back lost jobs," said Eswar Prasad, an economist at Cornell University who formerly headed the International Monetary Fund's China division. "Rather, such tariffs could end up inflicting collateral damage on US businesses and hurting job growth in companies that have built international supply chains."

China is currently trying to diversify its exports away from the US and, to facilitate this shift, it is investing in overseas ports, through OBOR. "Currently the US is its major market and it wants to export more to the US, the Middle East, and Africa," said Lin, adding that China was building gateways to Europe, where it can send its own ships.

A US policy shift toward isolationism under Trump could leave a trade vacuum that China will quickly fill and use to capitalise on the OBOR strategy, also known as the Maritime Silk Road. It is already happening in Europe with China building a OBOR bridgehead, or stronghold, in Piraeus, Greece. One indication of Piraeus' potential to grow is the decision by Hewlett-Packard (HP) to relocate a major part of its distribution activities from Rotterdam to Piraeus. Following HP's example, Huawei, ZTE, and Sony have also begun using Piraeus as a distribution hub.

According to the Chinese ambassador to Athens, Zou Xiaoli, the Piraeus project is the perfect embodiment of the "five pillars of the Belt and Road Initiative, namely policy co-ordination, facilities connectivity, unimpeded trade, financial integration, and people-to-people bonds."

China is approaching other ports in Europe, such as the Turkish port of Ambarli, where COSCO set up a joint venture with China Merchants Holdings International (CMHI) and CIC Capital Corp, two state-owned companies, to buy a 65% stake in the Kumport terminal, which has capacity to receive ships of 18,000 teu. This terminal, together with Port of Piraeus, could be integrated into a larger regional business strategy. Combined with the stakes that COSCO owns in the Suez Canal Container Terminal and Port of Antwerp, Belgium, this will create a network of shipment routes that will wrap around Europe's shores.

In Africa, an international consortium including China Harbour Engineering Co (CHEC) and, according to local media, South Africa public port company Transnet and Mozambique company, Bela Vista Holdings, is projecting an investment of USD1 billion in a new port in Techobanine in Matutuíne district, Maputo province, to serve Mozambique and neighbouring countries.

China is also constructing a new port at Bagamoyo, Tanzania, northwest of the capital Dar es Salaam. CMHI and Oman's State General Reserve Fund are providing the funding. Bagamoyo, which could be completed by the end of this year, is planned to be the biggest port in Africa. With a planned cargo throughput of 20 million containers per year, it will be 20 times larger than the current port of Dar es Salaam.

Large-scale and modern high-tech ports allow for a great increase in exports of Chinese goods to Africa, and, in turn, in shipping raw materials and natural resources from Africa to China. Bagamoyo will be a strategic pillar, connecting the Maritime Silk Road with east African countries.

Closer to home, China is building a multimillion-dollar port in Gwadar on Pakistan's southwest coast. This will be fully operational this year. Gwadar will be the heart of the China-Pakistan Economic Corridor, which is part of the OBOR project. The USD46 billion project will give Beijing greater access to the Middle East, Africa, and Europe through Pakistan.

In Sri Lanka, CMHC, in a joint venture with Sri Lanka Port Authority, has developed a 2.4 million teu-capacity terminal in the Port of Colombo. A second major project in the south of Sri Lanka is the construction of Hambantota Port, where CMHC and CHEC will develop and operate a container terminal.

In Malaysia, China has developed the ports of Kuatan and Samalaju and is building a port in Malacca, which could present competition to Singapore. Indonesia is also wooing China to build ports in the country.

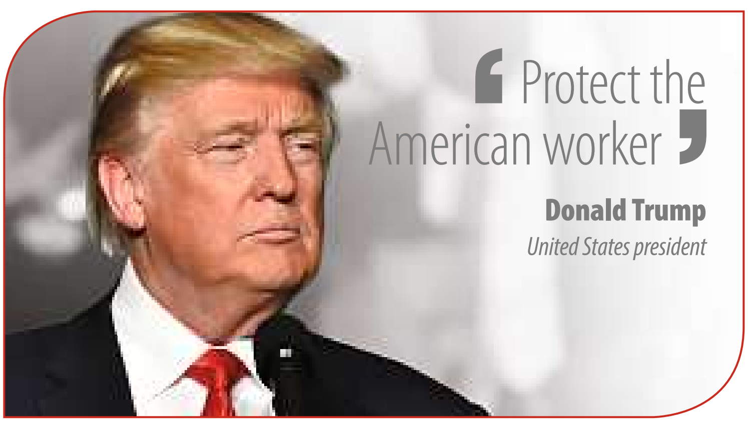
All these projects are part of the OBOR initiative. The 'belt' is a network of overland road and rail routes, oil and natural gas pipelines, and other infrastructure projects that will stretch from Xi'an in central China through central Asia and ultimately reach as far as Moscow, Rotterdam, and Venice.

The 'road' is its maritime equivalent: a network of planned ports and other coastal infrastructure projects that dot the map from south and southeast Asia to east Africa and the northern Mediterranean Sea.

A number of rail projects are already under way, while port development is growing constantly on the Maritime Silk Road. More than 60 countries, with a combined GDP of USD21 trillion, have expressed interest in participating in the OBOR action plan. In 2014, China established the USD40 billion Silk Road Fund to finance these initiatives. In addition, the Asia Infrastructure Investment Bank is widely expected to support the initiative with a considerable share of its USD100 billion in lending. "I think in the long term the 60 countries on the Belt and Road will benefit from all the infrastructure building," said Yip.

With growing calls for protectionism in the United States, CMHI is planning to invest in about 10 more overseas ports as part of OBOR. The strategy suggests a desire to shift some of China's overcapacity to new markets in the 'new normal', which is a period of slowing growth that China hopes will see a structural shift towards higher-quality sustainable development. PH

The views expressed in this article are not necessarily those of IAPH



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Chittagong Port Authority

Scope for growth

After 10 years of a 6% average annual growth, Bangladesh needs to think seriously about its port infrastructure

A study predicts that Chittagong's throughput will reach 5.1 million teu by 2040

There is a clear need for a modern port in Bangladesh but a definitive deepsea port project has yet to materialise. China and India, two of Bangladesh's biggest trading partners, as well as Japan, have forwarded a case to provide finance to invest in the country.

In October last year, China's president, Xi Jinping, visited Bangladesh and committed to a credit line of USD24 billion for the development of infrastructure projects but no details were provided on an investment in port infrastructure.

A major component of China's One Belt, One Road maritime initiative, Bangladesh had originally been scheduled to build a deepsea port at Sonadia in the south of the country. However, in February last year, the China Harbour Engineering Company project was scrapped by the Dhaka government.

Bangladesh's export sector is expected to eclipse USD50 billion in value by 2021, as global demand for its ready-made woven and knitted garments, frozen foods, jute, and leather continues to rise. Bulk throughput is expected to rise to 44 million tonnes by 2023 and 73.3 million tonnes by 2043. The dry bulk segment is forecast to see an average annual growth of 3.9%, to 55.5 million tonnes by 2043, driven by high demand for cement clinker, reflecting the large potential in the construction sector.

More than 90% of foreign trade volumes are handled by Chittagong port, located 16 km up the Karnaphali river from the Bay of Bengal. Chittagong has a draught of only 9.2 m, requiring the costly practice of transferring cargo from large to small vessels before berthing and discharge.

A 2015 joint port development study by HPC Hamburg Port Consulting, a Hamburger Hafen und Logistik AG (HHLA) subsidiary, along with two other companies, forecast that container throughput at Chittagong would rise to 2.9 million teu by 2020 and 5.1 million teu by 2040.

The port has three main terminals and is regularly subject to congestion problems. In a circular to customers last year, NYK Line said its vessels were forced to stay in port for up to six days, twice as long as normal, because of what it described as unprecedented levels of congestion.

Tim Wickmann, chief executive of Asia-based carrier MCC Transport, supports this view. "Ships are waiting three to six days," he said. "You can add a ship to your service but that doesn't increase your capacity because it is just sitting there, waiting. It has only one effect for a shipping line, and that is additional cost.

"The alternative, which we are doing in Bangladesh, is to increase our frequency. We now have four and sometimes five vessels, so even though one ship is waiting, there is another on the way. That adds capacity."

Many ports in Asia are experiencing fierce competition, and infrastructural shortcomings are not unique to Bangladesh. One in four containers that moves around the world is carried on the intra-Asia trade, which involves more than 70 shipping lines and 10,000 port pairs (ports connected by any one string).

Intra-Asia trade is expected to grow by just less than 3% in 2016 and slightly more in 2017. While trade grows and the smaller ports expand berths and add equipment, the current infrastructure behind the ports is unable to handle the rising volume of containers. PH

> You can add a ship to your service but that doesn't increase your capacity because it is just sitting there, waiting

Tim Wickmann, *chief executive, MCC Transport*

Hannah McKay/PA Wire

Modi pushes ahead with port upgrades

Nearly 30 months since the launch of Make in India, a report finds government policy and regulatory reforms are paying off. What's more, a dozen projects are planned for the year ahead

Make in India, launched by Prime Minister Narendra Modi in September 2014 as part of a wider set of nation-building initiatives, is steadily delivering on ambitions to transform India into a global design and manufacturing hub.

The *Ports & Shipping Achievements Report*, published in December 2016, confirms that there has been growth within the past couple of years, with 94 million tonnes of capacity being added to the major ports in 2015 and 2016, the highest ever capacity addition.

Furthermore, cargo handled by the major ports rose by 6.27%, from 348.21 million in the six months from April to October 2015 to 370.04 million tonnes in the same months in 2016.

In the past two years, 56 new projects, worth USD550 million have been awarded, creating additional port capacity of 317 million tonnes/year.

Under the Sagarmala projects, which envisage a port-led economy through infrastructure development in ports and the integration of ports within special economic zones, some 173 projects have been earmarked under the National Perspective Plan. India announced in January that it would set up a company to raise funds for and to assess and oversee projects under the programme.

According the government, a further 12 port projects will be launched under the Sagarmala projects over the course of the coming financial year, eventually adding about 30 million tonnes of annual cargo-handling capacity.

Contracts for the start of work on three major greenfield ports, at Sagar Island in West Bengal, Vadhaven close to Jawaharlal Nehru Port Trust(JNPT) in Mumbai, and the new container transhipment hub at Enayam in Colachel, are scheduled to be awarded in the coming financial year, the ministry of shipping said in an update on the programme.

Sagarmala aims to spur development and reduce logistics costs to improve the competitiveness of domestically produced goods and to attract more international shippers to set up export-focused manufacturing and supply chain operations in India.

India's logistics costs as a percentage of GDP are estimated to be about one-third higher than those of China, which is seen as considerably slowing development of its manufacturing and export potential. Under Sagarmala projects, the government is trying to address the problem by modernising the ports network, improving hinterland connectivity, including inland waterway transport, and developing well-connected coastal industrial and manufacturing zones.

The newly established Sagarmala Development Company (SDC) has an initial authorised capital of USD150 million. Its mandate is to develop and form projects and to assist special-purpose vehicles with project implementation.

A key role is to source capital for projects by offering equity for long-term, low-interest loans from bilateral and multilateral agencies and Indian government entities. It will also work on expanding private-sector investment and participation in Sagarmala projects.

"The company [will] help in structuring activities, bidding out projects for private-sector participation, identifying suitable risk-management measures for strategic projects across multiple states and regions, and obtaining requisite approvals and clearances," the ministry of shipping said.

Global heavyweight port investors such as DP World have expressed their intention to invest heavily in India's port infrastructure. The Dubai-based company said it planned to invest USD1 billion on the subcontinent over the coming years to complement existing operations at JNPT, Mundra in Gujarat, and Vallarpadam in Cochin. DP World's local intermodal arm, Container Rail Services, has also added rail services connecting major ports.

Planned reforms to the governance of the 12 major ports are expected to help them access funds and entice foreign investors. A current parliamentary bill would give the state-run ports much more operational autonomy and enable them to function more like corporate entities.

Prime Minister Narendra Modi's plans are rolling out through Make in India and Sagarmala

"The [Major Port Authorities] bill seeks to provide significant operational autonomy to the major ports and should ensure quick decision-making, attract investments, as well as leverage the land assets," said K Ravichandran, a senior vice-president with domestic investment information and credit rating agency Icra.

The bill needs to be cleared by both houses of parliament to become law.

The Sagarmala projects plan to triple the cargo capacity of the 12 major and over 200 non-major ports and supporting infrastructure to 3,000 million tonnes by 2025. According to the government, the scheduled start of the 12 new projects this year will raise the total of port-building and modernisation projects under way to 85, with a combined cost of more than USD5.7 billion.

Major new ports are also planned for Paradip in Odisha, Sirkazhi in Tamil Nadu, and Belekeri in Karnataka, along with projects to improve some facilities' ability to handle larger ships.

At Paradip, a major capital dredging project is under way to complement a new bulk terminal. The Odisha port serves a large number of power, mineral, and oil refinery industries located in its vast hinterland spreading over states in eastern, central, northern, and southern India.

These projects form part of an expansion programme to increase its handling capacity and allow it to accommodate bigger vessels. The project, valued at USD21 million, was awarded in October 2015 and involves dredging from 14 m to 17.1 m, which will enable the port to raise its capacity to 252 million tonnes by 2020, according to Ramchandra Rao, chief engineer at Paradip Port. Paradip Port currently has 14 berths to handle bulk cargoes in the inner harbor, with draught levels of between 13 and 14 m.

Another beneficiary of dredging activity is Jawaharlal Nehru (JN) Port, India's busiest container port. In December 2016, a global tender was launched to deepen and widen the Mumbai harbor channel and JN Port channel. Work to deepen the existing draught to accommodate 15 m-draught vessels, carrying more than 9,000 teu, will stretch over 35.5 km and is projected by the port to cost about USD260 million. PH

Jeddah Islamic Portv

Red Sea rivalry

Saudi Arabia wants to increase competition among its west coast ports, ***Peter Shaw-Smith*** reports

Jeddah handled 53% of Saudi Arabia's total port throughput last year

Jeddah, on Saudi Arabia's west, Red Sea, coast is considered the country's business and cultural capital. Shipping is an important part of this. The Red Sea is an arterial lane on global shipping trunk routes, with 30% of global non-oil trade volume today moving between Colombo and Suez.

While Jeddah Islamic Port accounted for 53% of total throughput at the country's top four ports in 2016, it still faces sclerotic problems associated with landside bottlenecks that leave it slow to adapt to the demands increasingly being placed upon it.

This serves to underline a malaise widely attributed to the ports sector being government-run, in the shape of the Saudi Ports Authority (SPA). Although it can be seen as emblematic of Riyadh's need to control the country, the SPA is nonetheless striving to improve the kingdom's logistics sector.

The Saudi economy was buffeted by average Brent prices of only USD43/barrel in 2016, according to research by Saudi Investment Bank Al Bilad Capital. Saudi oil income is now well off a 2012 high of SAR1,145 billion (USD305 billion).

Last year, these revenues fell to SAR329 billion from SAR445 billion in 2015. A rare beneficial effect has been that 2016 non-oil revenues as a share of public income hit all-time highs of 38%. Custom tariffs were SAR25.9 billion in 2015 and were forecast to fall to SAR20.8 billion last year, the bank said, in its report on the 2017 Saudi public budget.

The appointment of Harvard-educated former Saudi Aramco official Nabeel Al Amudi as president of the SPA in January 2015 led to a sense of urgency in the development of Saudi Arabia's ports. The low oil price has complicated the effort.

In 2016, total Saudi throughput at its top four ports, Jeddah, Dammam, King Abdullah Port (KAP), and Jubail, was 7.9 million teu, up 1.4% on 2015. Total west coast calls represented about 70% of all cargo movements in the country. Last year, transhipment, almost all of it on the west coast, stood at one-third of total country throughput.

"Results for Saudi container ports [were] mixed in 2016," said Phil Davies, associate director of Effect Advisory, Canada. "Dammam Port container traffic was down 8.8%, while Jeddah's was up 1.9%."

Elements of the National Transformation Programme (NTP) include key performance indicators the government is applying to the transport business, he said. "These are focused on productivity and private-sector investment, [including] port dwell times, train punctuality, and finance targets."

The port sector is being prepared for a two-stage restructuring, through a search for external investment, as well as possible privatisation, and improvements in the logistics sector, including rail. These are all seen as problems requiring speedy solutions.

"The first step is to improve performance. Yet, the timing and direction of any privatisation policy initiatives remain a bit uncertain," Darryl Anderson, managing director of Canada's Wave Point Consulting, told *P&H*. "The fall in energy-market prices brought about the cancellation of large projects by very large firms Saudi Aramco and SABIC, and the government. This has led to new entrants to the trucking intermodal market and [this is] keeping prices low. A prolonged period of low prices won't induce companies or the government to improve their logistics competency or customs procedures."

The need for international private-sector involvement in the form of port concessions has already brought success, with the entry of Hutchison Ports Holdings in Dammam in 1997, DP World at Jeddah's South Terminal in 1999, and PSA International, as Dammam's second terminal operator, at Saudi Global Ports (SGP), in 2015.

Speed of access is still a concern. An official with Gulf Stevedoring and Contracting Co (GSCCO), told *P&H*

in January that details of a royal decree issued late last year and stating that all import cargo to Saudi Arabia required customs clearance within 24 hours had yet to emerge. "This fits into an initiative being driven by the SPA president to improve efficiency across Saudi container terminals,"

GSCCO, a subsidiary of another international player, the UAE's Gulftainer, which took a 51% stake in the business in 2013, manages port assets at Jeddah Islamic Port (JIP) North Terminal and Jubail. "Several working groups, including SPA and terminals, are now working closely to develop methods and procedures to achieve [new targets]," said the official.

It is too early to say whether Saudi Arabia's first private sector port, KAP, situated on the west coast, will be a success, but the situation looks promising. Opened in 2014, throughput was up 8% to 1.4 million teu in 2016, and capacity increased to 4 million teu at the beginning of this year. The need to create a west coast rivalry to nudge Jeddah into action was paramount.

This seems to be working. JIP transhipment as a share of total throughput grew from 32% in 2015 to 39% last year, while the same figure at KAP fell from 77% to 73% in the same period. Despite rerouting some transhipment volumes to KAP, 2M alliance members Maersk and Mediterranean Shipping Co, may find the retention of strong links to Jeddah prudent.

"The competition has been beneficial for the carriers. As long as there is excess terminal capacity, the carriers stand to gain. I would expect them to encourage more container port development on the west coast," said Anderson.

"However, at some point, when the terminal operators need to earn an actual return on investment, things could change."

The oil-rich east coast ports serve mainly as a gateway for container volumes bound for Riyadh in central Saudi Arabia. East coast throughput, as represented by volumes at Dammam and Jubail, fell 2.3% last year. "Gateway cargoes declined mainly due to reduced government spending on development projects due to drop in oil prices, resulting in economic slowdown," a representative of Hutchison Ports Dammam (HPD) said.

The Saudi Railways Organisation (SRO) manages the existing rail link between Dammam and Riyadh. "SRO started service to the new SGP terminal in Dammam as early as December 2015," said Davies.

Commenting on the performance of HPD and SGP, Anderson said there was renewed emphasis on the co-ordination of operations and increased competition between the two terminals, which was significant. "Our experience with HPD is that it is committed to improving performance."

"Master planning is all done in Riyadh. Imports generally come in through Dammam. Three-quarters of those boxes go to Riyadh. For exports out, many originate from Riyadh, while some are exported through Jubail," Davies said.

Current plans for the expansion of the kingdom's port infrastructure involve development of a shipbuilding and repair yard at Ras Al Khair in a joint venture between Saudi Aramco and South Korea's Hyundai Heavy Industries.

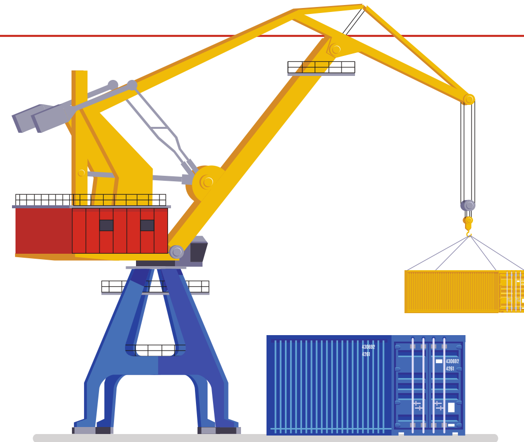
On the Saudi 'landbridge' connecting Jeddah and Dammam via Riyadh (the 'Red Corridor'), Italian design and consultancy company Italferr said it was awarded a contract extension last July to develop plans for an additional 1,300 km 'Blue Corridor' from Jeddah to Jubail. Design completion is scheduled for April 2017. Double-stacked freight trains on the line will be 4 km long.

Analysts argue that the scheme will challenge the United Arab Emirates' Jebel Ali Port. In terms of impact, Anderson argues that unless there is significant political instability, a rail connection between the two coasts would be more likely to serve the capital than act as a true landbridge. "If there was political instability with Iran, it would make sense to unload cargo on the west side and not send a ship to the east coast," he said. "Even without political instability, the landbridge concept is slightly problematic. Would Saudi officials really permit the free flow of west-coast cargo by rail to be transhipped on the east coast to regional ports? If it was headed to Iran, I don't think so."

Barring any major increases in regional grouping political conflicts, there is cautious optimism for the next 12 months, as OPEC production cuts may give rise to firmer energy prices, he believes.

"The five-year outlook could be significantly improved if the Saudi economic transformation plan gains traction and the government's balance sheet improves," Anderson said. "However, it runs the risk of not realising its full potential if the economic policies for transformation are delayed, for either domestic political or external reasons." PH

MORE INFO: www.italferr.it



Creating common ground for data sharing

The age of e-navigation is upon us and some industry experts believe ports should be at the centre of the discussion to enhance productivity

The role of a vessel traffic management system (VTMS) is no longer safety alone. While safety remains its most important function, in this digital age VTS technology can be leveraged as a decision making tool to facilitate a smooth trade flow, can offer commercial advantages and can also be used to protect the environment. However, to truly garner all that a VTS can offer, ports must think differently about their data sharing, say industry experts.

John Taxgaard, VP for global marine services at Ericsson, writes in an article on information and communication technologies (ICT) that "there is very little opposition to the argument that the information and operational links between [the] ship and ports and [the] terminal need to be increased and improved. To begin that process requires an engagement on a number of levels."

Increasingly, VTM is being seen as an opportunity for better voyage planning so that port operators can use their port depths to maximum advantage and traffic can be better managed. But ports are typically protective of their data, which is understandable if they want to retain their competitive edge.

To withstand all challenges, VTMS supplier Transas, said in a paper [that] "it is necessary to take a step up from traditional VTM, as a standalone isolated authority managing traffic in a port, to a new generation that has the VTM acting as a high-tech system with advanced decision support tools that allows automated interaction with other stakeholders. However, this will not be possible without [a] modern approach to VTM construction involving modern technologies. It also requires a change in the attitude of all stakeholders involved in ship traffic management and the activities associated with it."

Dmitry Rostopshin, director of traffic control & management solutions at Transas told *P&H* there was already a growing tendency by ports to move towards linking VTS and regional traffic control along coastlines and that ports should be at the centre of these large information systems.

Some regions are already doing this, with ship reporting schemes in, for example, the Gulf of Finland between Estonia, Russia and Finland, known as GOFREP, and SafeSeaNet for European Union states, Norway and Iceland.

In addition, projects are under way. Sea Traffic Management is a European-endorsed project led by the Swedish Maritime Administration that is researching the possibility of a set of standards to share the abundant digital information created by ships and ports to increase safety and sustainability. It leads on from research gleaned thought the EU-funded Monalisa project.

The Port of Saint John, at the mouth of the Saint John River on Canada's east coast, is upgrading its VTS. It too plans to share its VTS data with other stakeholders to maximise the system's potential (see box).

Ten years ago VTS operations were not integrated with port operations, Rostopshin notes. Looking forward, he believes that satellite communications

VTS commercial advantages

A number of VTS systems around the world are required to manage the dynamic under keel clearance (DUKC) systems within their ports, said Xanatos Marine. For example, DUKC was introduced into Port Hedland, Australia, in 1996 to provide benefits to the shipper, shipowner and charterers, through maximising the sailing draught and/or extending the tidal sailing windows, the company explained. "Vessels are able to ship greater tonnages without compromising vessel or port safety. The system utilises real-time sea, swell, and tide data as well as the vessel's own stability criteria to determine accurate allowances for squat and wave response. This enables Port Hedland to predict the sailing draught and/or sailing windows with greater accuracy and optimising the vessel's load," the company told *P&H*.

A modern VTS provides ports with accurate and real-time situational awareness of vessel traffic in their areas of responsibility. This enables them to organise traffic in a way that optimises movements and minimises delays to ships entering, leaving, and/or manoeuvring within the port. "A Traffic Organisational Service enables ports to manage increased vessel traffic while maintaining control and minimising risks to people, property and the marine environment," said Xanatos Marine.

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In the age of e-navigation, the need for a common approach to data sharing is more important than ever

technology is moving at such a pace that in two to three years' time all vessels will be have access to some satellite connectivity. How to garner this information and optimise on it will be the next step. For this, Rostopshin asserts that it is necessary to adopt a common data environment for all stakeholders.

> "The biggest barrier tends to be the industry's home-grown IT environment ... it has created a protectionist approach"

Taxgaard said, "The first principle to grasp is that the application of standardisation in ICT will allow technology adoption, and therefore collaboration, to occur at an accelerated rate."

The obstacles to collaboration are not all financial, as one might assume, said Taxgaard. "The biggest barrier tends to be the industry's home-grown IT environment, which has created a protectionist approach towards standardised, open systems."

Rostopshin is mindful that cyber security remains a real challenge for the industry and that the necessary security levels must be achieved before any information is shared between stakeholders. He also acknowledges that data protection presents a big challenge and notes that the maritime industry does not like changes.

Nonetheless he said an open interface was needed, where all data was accessible according to requirements to provide more efficiencies.

The way forward he said was to explain benefits from a user perspective – if they share information with other users, what they will get out of it in the end – but it's a long process if starting from scratch. Port authorities should start thinking now about the opportunities that VTM data sharing could present. PH

Port Saint John enhances maritime domain awareness

Port Saint John, Canada's third-largest port by volume, began the first phase of its vessel traffic monitoring system (VTMS) upgrade in February this year. The investment by the east coast port seeks to enhance real-time maritime domain awareness and aid in port operations.

Kris English, business development manager of VTMS supplier Xanatos Marine, told *P&H* that the upgrade was partially due to the port's desire to improve its real time situational awareness. The port wanted to "increase safety, security and reduce environmental risks by having a real-time, layered picture of what is occurring in and around the port." It also wanted the ability to replay a scenarios in the case of a violation or the unlikely event of an incident. Additionally, the ability to be able to replay various sensors in a synchronised manner provides an effective training tool, he said.

The system, which is being implemented in stages, includes the Xanatos Marine TITAN Sentinel VTMS software platform, AIS, three long-range cameras, and computing and display systems. "Xanatos Marine will be providing system training and ongoing service as part of the complete support programme," the company said.

The port is particularly interested in energy ship movements and wanted to be "able to continuously and automatically track vessels' inbound and outbound movements", said English.

The new system has the ability to share sensor data with port partners, allowing informed decisions to be made using parallel information, said English.

"The data sharing component is important as it can facilitate a number of activities from collaborative planning to mitigation actions." He noted that the system was flexible and would tie into several existing environmental sensors.

Tampa, the big picture

Port Tampa Bay in Florida is building new berths on reclaimed land, forming partnerships with global and local businesses, and has announced the ambitious Vision 2030 masterplan that expects to see up to USD3.4 billion invested over the next 15 to 20 years. ***Tony Slinn*** reports for *P&H*

Images: Port Tampa Bay

Port Tampa Bay's ambitious development masterplan, Vision 2030, was introduced by it's president and CEO, Paul Anderson, in December when he opened its new Eastport multiuse cargo berth, built on 8 ha of land reclaimed by dredging.

"Our comprehensive masterplan is the blueprint for the future and growth of Port Tampa Bay and for our partners," Anderson said.

"A recent economic impact study shows the port provides an annual contribution of USD17.2 billion to the regional economy and supports about 85,000 direct and indirect jobs. As we move forward in implementing the plans to grow our infrastructure and build this port to its highest potential, we will also strive to be a great return on investment by fostering an environment that creates jobs and provides positive and lasting economic impact for generations to come."

Speaking exclusively to *P&H*, Tampa's planning and development vice-president Ram Kancharla outlined the background and thinking behind Vision 2030.

"Like all ports, we have to take market conditions into account," he said. "We know our strategy for the next 12 to 15 months of course, but in the longer term, while we now have a solid roadmap, the timing will depend on the market.

"We're the largest and most diversified port in Florida and we handle over 75 different cargoes – pretty much the entire gamut. We're not limited in what we can accommodate, so we can't and don't prioritise any one sector. We handled 38 million [US] tons [34.47 million tonnes] over the last year and are on course for 40 million tons [36 million tonnes] within 24 months.

"At the moment, containers, for example, are a small part of the equation. But our capacity for containerised cargo, as well as dry bulk cargoes, is not sufficient for expected demand by 2030, and plans are being put in place for berth and uplands expansion.

"Consider too that in terms of future growth we are one of the fastest growing regions, not just in Florida but in the USA," Kancharla noted. "We have nearly 10 million residents in our immediate hinterland and over 60 million tourists visiting every year."

Catering to that hinterland and beyond, Tampa built the multipurpose Gateway Rail Terminal (GRT) in 2012 in collaboration with Transflo, a subsidiary of rail giant CSX Corp, and Kinder Morgan Energy Partners. The USD11 million investment created the nation's first ethanol train-to-pipeline distribution system, plus Florida's first on-dock unit train capability, enhancing Tampa's position as an energy gateway. GRT can now handle 100-car unit trains.

"Rail is increasingly important and we have a couple of exciting projects we're currently looking at to further expand distribution," Kancharla continued. "With larger ships coming through the expanded Panama Canal, shipping lines are showing interest because we have the rail terminal.

"Above all, we have the land. The port owns or controls about USD600 million of assets and we have 2,750 acres (1,100 ha), while private operators have

5,000 acres [2,020 ha) within the port's precincts. Most ports globally would be envious."

Most ports would also be envious of Tampa's ability to grow its acreage by dredging and reclamation to build additional cargo wharves on deepwater frontage. The Eastport berth and the under-construction Berth 302 at Port Redwing are examples.

The Eastport multipurpose cargo berth has an alongside depth of 13.1 m at mean low water, while its yard has 36 cm reinforced concrete, capable of handling containers, ro-ro activity, and bulk materials handling. It was built over two phases with an initial construction investment of USD4.6 million, with build-out costing USD21 million, half of that funded by Florida Department of Transportation (FDOT).

At Port Redwing, which with South Bay forms a 110 ha complex boasting interstate highway access and direct rail connection to the CSX network, Tampa's board awarded GLF Construction a contract to build out Berth 302, a second new cargo berth. This represents a USD14.5 million investment that will enhance bulk and breakbulk operations. Again, FDOT will be involved in funding the project, which includes dredging and upland improvements as well as the build-out.

This decision followed the August 2016 ground-breaking ceremony for Tampa Tank and Florida Structural Steel's USD18 million facility expansion that confirmed Port Redwing's move towards becoming an industrial cluster focusing on manufacturing and distribution.

In addition, a new five-year leasing agreement was signed with stevedore and terminal operator Gulf Coast Bulk Equipment (GCBE) and its new partner Logistec Gulf Coast, which are to consolidate their land holdings totalling nearly 5 ha. GCBE handles a variety of dry bulk commodities for various clients, including global phosphate and potash giant Mosaic.

Kancharla explained, "Dredging of our main channel, close to 62 miles [100 km], is down to the US Army Corps of Engineers [USACE], which spends about USD10 million annually. The port spends about USD4 million on maintenance dredging.

"What we do with the dredged material depends on the material type and how far the dredging operation is from areas where we want to reclaim land. We also have two islands where we can place material, and we replenish beaches too.

"At Port Redwing we have a channel called Big Bend, which is only 34 ft [10 m] deep," Kancharla noted. "Both Mosaic and Emera, a Canadian energy conglomerate bringing in coal for Tampa Electric Company's Big Bend power station, are interested in a deeper channel, so it's our intention to dredge to 45 ft [13.7 m] to capitalise on its assets and service bigger vessels. We have the approvals in hand and it will cost about USD50 million, likely to be a mix of funding that I can't disclose at this stage. It's important, however, to think of dredging as a long-term benefit, not a short-term project."

Apart from its array of more than 60 cargo handling terminals, Tampa is also a top-10 US cruise port, catering for about 900,000 passengers annually. It aims to build on that, but has a constraint – the 55 m air draught restriction imposed by the Sunshine Skyway Bridge.

That's not a problem for most current cruise ships, which carry up to 2,500 passengers, but it is for the new generation of cruise behemoths.

That said, within Vision 2030 is the Channelside Masterplan, designed to cater for larger cruise vessel deployments with optimal, restructured facilities, and address the market for 2,500+-passenger ships in the longer term. "Channelside covers about 18 ha and is an underused asset," Kancharla said. "Again, we're looking at the next 10 to 15 years, but we've a plan for about 9 million ft^2 (840,000 m^2) of hotels, offices, shops, cruise terminals, and much else. We expect to invest about USD175–200 million and will look to about USD1.5 billion of private investment to follow that.

"Again, it's all market-driven, but we've engaged consultants Bermello Ajamil & Partners, who are uniquely qualified to design this type of mixed development.

"We have a very bold vision through to 2030, with the port investing about USD1.4 billion," Kancharla said. "We have a strong port director who believes in planning ahead, and a strong team to back him up. We will really make a difference." PH

MORE INFO: www.porttb.com

Eastport's new berth under construction

Reclaimed land using dredged material (left) for Eastport's new berth, seen completed (centre), while a new berth was built at Port Redwing (right)

Port of Los Angeles

Say it loud, say it clear

Communication, whether face to face or via Twitter, is an essential part of any business, and ports are no exception. ***Scott Berman*** talks to some experts

A port's relationship with its local and broader community and the maritime sector requires constant communication, and today those messages can be delivered by myriad channels. "If there's a communication void, someone is going to step into it," Arley Baker, senior director of communications for Port of Los Angeles told *P&H*.

If a port doesn't actively communicate to key audiences such as neighbours, lawmakers, and the industry, another port will fill the gap. This has the potential to be damaging. If a port is not communicating well, needed projects and initiatives may not happen, or it could be overlooked in a dynamic scene of mergers and port alliances.

Organisations communicate through public relations, a function with various components and aspects, including community relations, internal relations, financial relations, and government affairs. Media relations and publicity are key components, including news releases, social media and website content, and preparing and implementing a concerted communications plan. Other activities include crafting information based on the multiple roles of a port and a port authority, fostering conversations with stakeholders, and seeking feedback and support for port initiatives.

Press events can create big impact and give a strategic edge. For example, Port of Los Angeles invited journalists to the quayside in May 2016 when it announced a pioneering, USD26.6 million, zero- and near-zero-emissions Green Omni Terminal Demonstration Project, and in December 2015, when container behemoth *CMA CGM Benjamin Franklin* made its inaugural American call at APM Terminals' Pier 400. The events generated media coverage, signalled the port's growing container

Port of Los Angeles

Los Angeles Mayor Eric Garcetti at a news conference about the Pasha Omni Green initiative last year

business and environmental advances, and provided a value-added service to cargo companies and terminal operators. They also spawned social media interest and interaction and got people talking about the port.

The internet has broadened the media landscape, and effective websites have been a key component for businesses for more than 20 years. Port of Vancouver's activities are featured in PortTV, an online channel launched in 2014 by Vancouver Fraser Port Authority as part of its community awareness programme. Accessible via the port's website, it also contains broadcast advertisements and social media content.

Press event at Los Angeles upon the arrival of *Benjamin Franklin* in December 2015

Delivery systems may vary but they share key goals. Sophie Roux, the Port of Montreal's vice-president of public affairs, noted the ongoing need to "consult, educate, and inform" the public, including neighbours, the business community, public officials, and social activists, all of whom have a stake in how the port operates. Accordingly, "you have to initiate dialogue", Roux said, and maintain that dialogue. Media relations can reinforce such efforts, which may also entail community or stakeholder relations.

This was the case during the planning and construction of Port of Montreal's Viau container terminal, which opened in November 2016. During the run-up to construction, the port worked closely with terminal operator Termont and shipping line MSC on community outreach, which included sessions for the public, from which "we all benefited", Roux said.

Overall, the port combines community, stakeholder, and media relations efforts with a message frequently shared: what projects, policies, and initiatives are about and why they matter and will be of benefit to neighbours, partners, the city, shipping lines, and others. Social media has a big role in sharing such messages, Roux said, and in creating a "virtual community, with two-way dialogue on a regular basis".

Ports of Stockholm is also proactive in its use of the media, as seen in communications about its busy construction programme, including a new passenger terminal pier. The port's public relations manager, Ingrid Hansson, said she and her colleagues worked across print, broadcast, and digital media, including the port's own website and Instagram, Facebook, and Twitter. These are keys for notifying and responding to the media and the public, she noted.

Social media is a tool to build relationships and to share information quickly, said Paula Copeland, manager of corporate communications and governance at Port of Saint John in eastern Canada. Copeland believes that if ports don't take full advantage of such media, "they are missing an opportunity to be connected and visible". Yet, even in this digital media age, personal one-on-one contacts with the community remain important. She explained that Port of Saint John regularly conducted school tours – a basic, tried-and-trusted activity that fosters understanding. These events can also be the basis of social media posts and broader media coverage.

Despite the opportunities to be found in the social networking arena, Hansson at Ports of Stockholm still places great importance on developing and maintaining good relationships with media professionals who know the port and cover it over time. She added that the port had brought in outside consultants to conduct media training sessions for port professionals, including advice on dealing with reporters.

A different kind of media training happens at Port of Duluth-Superior on the US side of Lake Superior. There, Duluth Superior Port Authority conducts a regular 'Port 101' session to acclimate new reporters to the port and its operations. The authority's public relations director, Adele Yorde, described as 'a proactive port communicator', explained that it was part of an effort "to make people connect with the idea that a global, international seaport is in their back yard".

Media are targeted according to the port authority role each media professional covers. At Duluth, those roles pertain to business, economic development, and maritime advocacy, and Yorde and her colleagues are attuned to matching different messages and media, including social media, accordingly.

In Los Angeles, Baker observed that media relations and public relations overall matter because the port is "a microcosm of a complex society" with multiple stakeholders. Thus, community interaction is intrinsically part of port operations, with effective communication generating buy-in for port initiatives.

And, Baker noted, if there's a communications void, somebody's going to fill it. Why not your port? PH

Advice from the PR professionals

- "Walk the talk before engaging the media," according to Sophie Roux of Port of Montreal. Have a clear-cut plan and take concrete action before communicating.
- Remember that traditional media still matter. Gaining quality coverage in well-established media outlets remains a keystone to communication, is the advice from Arley Baker of Port of Los Angeles.
- "Be authentic and be relevant," Port of Saint John's Paula Copeland urges.
- "Consider every contact with reporters as an opportunity to educate, not spin," is the recommendation of Adele Yorde of Duluth Seaway Port Authority.

Authentic Travel/ Shutterstock

Crossing the border with cargo tracking

East Africa is improving its freight flows with increased investment in cargo tracking technology and more joined-up thinking about logistics, ***Shem Oirere*** reveals

The deployment of freight flow control technology in the transport corridors of east Africa is gaining momentum. At least three countries are finalising plans to set up a joint electronic cargo tracking system (ECTS) to improve the efficiency of enforcement of tax laws, and security and safety of imports and exports to and from the region.

Kenya, Rwanda, and Uganda had planned to launch the joint cargo tracking system in June 2016, but the deadline was pushed to January 2017 to allow the countries to agree on details of how to create and use the single system and platform with seamless visibility along the Northern Corridor (see *P&H* Jan/Feb, p16). The corridor is a multimodal corridor encompassing road, rail, pipeline, and inland waterways created by Burundi, Kenya, Rwanda, and Uganda to link them to the port of Mombasa.

By mid-January there was no confirmation on the exact date for the launch of the single cargo tracking platform, although the three countries had earlier signed a memorandum of understanding on creating the system under a contract awarded to Malaysian technology firm BSmart. The company has been piloting the electronic tracking system in Uganda since 2011.

"On implementation, Kenya, Rwanda, and Uganda will jointly attach electronic seals to cargo at Mombasa.

A Maersk truck in Mombasa, Kenya. Damco, part of the Maersk Group, recently signed a deal with Safetrac, a fleet information, tracking, and management company

The implication is that goods cannot disappear in anyone's territory. We will have rapid response teams to intervene swiftly," said a statement by Uganda's Revenue Authority. Early last year, Kenya Revenue Authority (KRA) commissioner general John Njiraini said the joint system "will remove the opportunity presently exploited by crooks at the changeover of electronic seals at border points as it will require affixation of only one seal, to be disarmed on arrival at destination".

At present, each country using the Northern Corridor handles its own tracking. The Northern Corridor Transit and Transport Coordination Authority (NCTTCA), which oversees the Northern Corridor operations, said previously vehicles carrying cargo had to have an electronic tracking system for each country they went through.

"When a truck reaches the border, the ECTS for that country is removed and replaced with that of the next country in transit," the report said.

NCTTCA said the system "is costly to the transporters. Furthermore, none of the stakeholders involved in the handling and clearance of goods is able to monitor the cargo across borders from origin to destination".

What the joint tracking platform intends to do, NCTTCA says, is to interconnect the ECTS being used by either Kenya or Uganda and allow stakeholders involved in the handling and clearance of goods to receive alerts regarding the movement of their goods while in transit. The countries are also hoping to harmonise the cost of operating the ECTS after they launch the joint cargo tracking initiative.

Despite each country operating its own ECTS, the uptake of cargo tracking technology particularly Global Positioning System (GPS) and radio-frequency identification (RFID) has been on the rise. Switzerland-based inspection, verification, testing, and certification services firm SGS says that between 2013 and 2015 installation of ECTS in Kenya, in one form or another, increased by 200%.

The continued investment in a flow control system is starting to increase proof of delivery, minimise cargo theft and contents pilferage, avert dumping, and improve revenue collection and efficiency in cargo movement operations.

The technology has reduced the cost of transporting cargo from the port of Mombasa by eliminating the need for escort cars and police. The Uganda Revenue Authority estimates that prior to 2011, when BSmart launched the ECTS, importers, exporters, clearing agents, and transport operators spent an estimated USD832 million a year on cargo escort services.

"The level of utilisation of ICT [information and communications technology] for fleet management is high, particularly in Kenya and Rwanda, and there is a high use of GPS management for large fleets [of trucks]," said a United Nation University Working Paper authored by Charles Kunaka, Gaël Raballand, and Mike Fitzmaurice in December (2016).

The paper, *How Trucking Services Have Improved and May Contribute to Economic Development: The Case of East Africa,* also noted that even Kenyan and Rwandan trucking companies with fewer than 10 trucks (7 being the norm) have had their vehicles equipped with GPS-based fleet management systems.

SGS has been providing tracking services to the KRA and some independent transport companies. These services enable Kenya customs authorities to ensure all cargo-carrying vehicles are fitted with GSM (Global System for Mobile Communications)/GPRS (General Packet Radio Service) communication gadgets. The company uses technology from asset tracking company Savi to provide it with the hardware and software for SGS's Omnis technology, providing constant tracking of cargo, according to a previous report by the company.

All containers leaving the port at Mombasa are fitted with electronic seals. The seals are then coupled with vehicles using RFID. The already confirmed route, from the point of exit at the port's gate to the destination, is configured into the system for purposes of geo-fencing (a virtual geographic boundary).

Logistics providers such as trucking companies, especially those with a fleet of trucks, work with ECTS technology firms and can log into a password-protected online platform to track the movement of vehicles and performance of the fleet with precise update information.

The tracking system is meant to generate alerts whenever attempts are made to remove or access the cargo before it reaches its destination. Such alerts are shared with police who respond to unusual movement of the fleet or interference with cargo.

The system is also programmed to trigger alerts when the truck arrives at its set destination, or when it enters, or stops in restricted areas.

Safetrac, a fleet information, tracking, and management company has recently completed a deal with Damco, part of the Maersk Group and a provider of freight forwarding and supply chain management services, for a standard vehicle tracking solution called IMT 54.

Both companies said last December that the tracking solution, manufactured by Turkey-based Arvento Mobile Tracking and Fleet Management Systems, "enhances cargo security for vehicles through tracking within east Africa".

Each single unit of the device is fitted with internal GSM and GPS antennas and has detach-and-disable detection features that make it hard to tamper with its electronic seal and ensures drivers are route-compliant, according to Safetrac.

The rapid uptake of cargo flow control technology in east Africa has raised the hopes of shippers looking to enhance the track-and-trace of their shipments and empower revenue agencies in the region to enforce tax laws at a time when cargo volumes at the ports of Mombasa and Dar es Salaam are on the rise. PH


Dietmar Hasenpusch

Terminals fare well in visitor reviews

BIMCO's vetting scheme aims to shed light on ships' experiences at dry bulk terminals

Initial research from international shipowner association BIMCO's Dry Bulk Vetting of Terminals scheme was released in January and suggests that most dry bulk terminals across the globe offer a high standard of service.

The scheme was launched in early 2015 and BIMCO asked shipowners to complete a questionnaire after visiting a terminal. The association is using the information gathered to form the basis of a database for its website. When sufficient information is obtained, it will rate terminals in the hope that this will be of use to shipowners planning future calls, as they will be able to find out about other ships' experiences.

In total, 231 terminals across 74 countries were covered in the vetting scheme and 94 ships fed back on their experiences through questionnaires, providing a total of 443 reports. More than half of these indicated a 'very good' or 'excellent' experience at the terminal visited.

To validate the data, BIMCO will not put the results for a particular port on its website until there are at least five reports available for it. As of 1 December, 15 of the 231 terminals had more than five entries and the analysis in the January summary of the scheme focused on these.

Those ports indicate above-average performance in terms of communication and information exchange between ships and terminal operators. Generally good performance in loading and unloading activities and a high standard of available infrastructure and equipment on a global level was also observed.

Through the questionnaires, several areas of potential concern were uncovered, including a lack of information on emergency procedures being provided to vessels at berth on nearly one-fifth of calls, while in 17% of survey responses an inability to set up gangways, thereby hindering access to vessels, was recorded. BIMCO said these two outcomes were inappropriate and that the association would focus on improving both areas.

Loading and unloading performance received the highest rating, indicating that terminals put a lot of effort into their core business of exchanging cargo safely and efficiently. "Loading plans were generally available and were followed without amendments. Also, loading handling was conducted without damage

Hansaport ore terminal in Hamburg

to ship or equipment," the study found. Ship masters are normally consulted when changes are made to plans and changes generally did not result in delays, it added.

"Terminals, to a high degree, followed the loading plans. The survey showed that the terminal often took the initiative to change loading plans and mostly allowed time for ships to prepare for the change, in consultation with the master," said the report.

Negative comments include, in some cases, a lack of sufficiently good language skills on the part of terminal staff, unexpected claims, overly bureaucratic and offensive port authorities, and too much pressure on vessel personnel. The cost of services such as waste removal and the supply of fresh water were also reported to be excessively high and in some cases ships were given water unfit for human consumption.

The research assesses terminals under five main categories: mooring and berth arrangements, terminal services, terminal equipment, information exchange between ship and terminal, and loading and unloading handling. Loading and unloading are given the highest weighting, followed by terminal equipment and information exchange.

"The reporting indicates a general high standard of dry bulk terminals, with a good or excellent overall performance, especially with regard to performing loading and unloading, and the quality of the terminals and equipment. Communication between ship and terminal, as well as the exchange of information, was satisfactory, even in cases where new plans had to be made," the study said.

> More than half of reports indicated a 'very good' or 'excellent' experience at the terminal visited

Several communication methods were used during operations but having a terminal-appointed foreman often present on deck for the duration of operations was the preferred method.

Of the 15 terminals included in the sample, the top five performers were: Santa Marta, Colombia; Bilbao, Spain; Port Alfred, Canada; Rio Hania, Dominican Republic; and Ghent, Belgium, in that order.

The work is still at an early stage and the association noted that there were insufficient data at the moment to draw solid statistical conclusions or make definitive statements about trends and details on a global or regional level. PH

MORE INFO: www.bimco.org

Weathering the dry bulk dip

The dry bulk shipping industry is still in a recession as overcapacity continues to depress freight rates. The impact on the terminals that handle the cargo, however, is more difficult to ascertain.

A representative of the International Dry Bulk Terminals Group (DBTG) told *P&H*, "It depends who you ask and where they are."

This statement was supported by IHS Markit's director of consulting for maritime and trade, Jurgen Sorgenfrei, who noted, "The effect for ports cannot be judged in general. For some, like Hong Kong or New York, the effect is quite low because of their small share of dry bulk volume. For huge ports such as Port Hedland, Qinhuangdao, or South Louisiana the effect depends on the markets they serve."

South Louisiana saw a sharp decline in coal and ore volumes, he added, because of global economic influences on the southeast of the United States, whereas Australian and Chinese ports saw increases.

According to DBTG, however, some ports can see a direct correlation between dry bulk freight rates and terminals. "The low freight rates have undermined the ability of high-performance terminals to add value to shipowners and charterers," it said. "The extra capital expenditure on higher discharging rates is not providing the returns expected when the investments were planned, mostly from 2005 to 2008."

Many countries are now looking for substitutes for coal and oil as energy sources and Sorgenfrei believes there could be effects further down the line. He said that already in Europe and some American ports, energy policies were having a limiting effect on volumes.

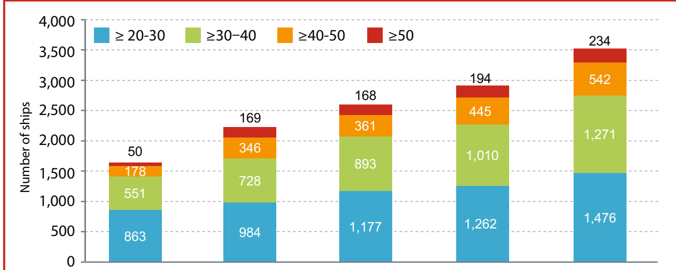
"When dry bulk only represents a small share of throughput, this is not that important in short run, but in the long term [it will] for sure." He also cited limited economic growth as a long-term challenge for the industry.

Another DBTG official took a different approach on renewable energy, explaining that "greener energies affect the way thermal plants work". Coal burns in a predictable way, but energy derived from wind or sun is not as reliable, "making terminals assume the challenge of delivering high quantities [of coal] in short periods of time, alternating with no delivery, with little or no forewarning.

"From an organisation management point of view, this is a huge challenge." PH

Blue Comms

ESI scores



DATE	01 01 2015	01 07 2015	01 01 2016	01 07 2016	01 01 2017
≥20	1,642	2,227	2,599	2,911	3,523
<20	1,246	1,153	1,210	1,384	1,576
SHIPS	2,888	3,380	3,809	4,295	5,099
IPs	30	36	39	46	49

Source: IAPH

*Please note that the bars only show ESI scores over 20

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ESI-registered ships on the rise

The number of ships that have joined the IAPH Environmental Ship Index (ESI) scheme stood at just over 5,000 on 1 January this year, up from just over 3,800 at the start of 2016.

World Ports Climate Initiative (WPCI) director Fer van de Laar said he was pleased to see that the number of ships participating was still increasing five years into the project.

He told *P&H*, "IAPH is pleased to see a growing commitment from ship operators/owners to reduce their vessels' impact on the environment. The ESI scheme offers a relatively straightforward way to assess a ship's emissions of CO_2, SO_x, and NO_x and can lead to incentives from participating ports".

ESI is one project in WPCI. It rewards ships with low emission levels and has witnessed steady growth over the past two years.

ESI gives vessels a score based on their emissions data and this is applied to a formula found on the ESI website. The score ranges from 0 for ships that are just in compliance with applicable regulations to 100 for ships that perform exceedingly well in limiting emissions to air. The diagram shows all the vessels with scores above 20. Four categories are represented on the graph: scores of 20–30, 30–40, 40–50, and 50-plus. The registered incentive providers use the scores to determine the level of incentive for the vessel.

The biggest increase by number of vessels was in the 30–40 bracket, which had 1,271, 42 % more than the 893 at the start of the year. Another encouraging figure was a 40 % increase in vessels with a top score of more than 50. This represents just 243 of the overall figure, with 68 joining the scheme in 2016. Nonetheless, it suggests that more environment-friendly vessels are in service.

More incentive providers, mainly port operators, have joined the scheme. On 1 January, there were 49, van de Laar reported, an increase of 10 in 2016.

The ESI project was rolled out in 2011, by a group of northwest European ports and Los Angeles.

MORE INFO: www.esi.wpci.nl

IMO introduces gas fuel code

In January, a new IMO mandatory code for ships using gases or other low-flashpoint fuels came into force. The code includes training requirements for seafarers working on such vessels. The International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code) "aims to minimise the risk to ships, their crews, and the environment, given the nature of the fuels involved," IMO said.

The Safety of Life at Sea (SOLAS) convention has also been updated and now requires new ships using gases or other low-flashpoint fuels to comply with the requirements of the IGF Code.

IAPH's World Ports Climate Initiative has a project that considers the use of LNG as a fuel for ships.

MORE INFO: www.lngbunkering.org

Notable numbers

5,000+ Ships with ESI scores

20% Ports responding to cyber security survey that have been a victim of attack

Dual-fuel ferry is a west Canadian first

A new dual-fuel hybrid- diesel, LNG- and battery-powered ferry, *Seaspan Swift*, entered service in Canada in January.

It operates on the Seaspan Ferries Corporation (SFC) service between the British Columbia mainland and Vancouver Island.

The ferry is the first of its kind to operate on the west coast of Canada and the LNG bunkering by "truck trailer is a first in North America", said Bureau Veritas, which classed the vessel.

According SFC, the vessel was delivered in December and underwent checks and crew training before being put into service. Sister vessel *Seaspan Reliant* is scheduled to be delivered this year.

Seaspan Swift, at 148.9 m long, was designed by VARD Marine, Turkey. SFC operates a fleet of seven ferries out of five terminals in British Columbia, supplying Vancouver Island with more that 50% of its cargo.

MORE INFO:
www.lngbunkering.org

US considers ballast water management fee

US west coast terminal operators are lobbying hard to bring down fees associated with ballast water management schemes at three US west coast states.

Operators and vessel owners say the fees would impede their ability to compete.

A proposal being considered by lawmakers in Washington State would create a USD125 fee to be collected from foreign owners or operators of every commercial vessel calling at ports in the state – notably its two largest ports, Seattle and Tacoma – to help pay for the state's ballast water management (BWM) programme.

Politicians and environmental groups want the fee to go towards covering the cost of vessel inspections and ballast water enforcement activities as part of the state's ballast water management programme. But terminal operators contend that the fee could drive business away from the ports.

"It's not just the cost of the fee, but once those fees are in place, it sends a signal that they are likely to increase, and that states will be looking to enact copycat fees with other programmes," Mike Moore, vice-president of the Pacific Merchant Shipping Association, told *P&H*.

USCG

A US Coast Guard inspector checks a sample. Washington is considering a fee to help cover the cost of vessel ballast water inspections and enforcement

"If they're not needed, why put them in place? Our [Pacific Northwest] gateway competition is already strong. These fees only further increase uncertainty, which hurts our ability to compete."

Increases in state ballast water fees have played out in Oregon, which recently raised its per vessel fee to USD88.

In California, a proposal to raise the fee from USD850 to USD1,000 is being considered.

A budget analysis of Washington's proposed legislation found that the state expected to see 3,675 qualified vessel arrival fees each year, putting revenue collected at USD459,000/year starting in 2018. In 2016, about 2,000 vessels called at Seattle and Tacoma.

But Moore, a US Coast Guard (USCG) veteran and former captain of the port stationed in Seattle, said 78% of vessels arriving in Puget Sound did not discharge ballast water at all. Crude tankers, for example, bring in oil and take on ballast water when they leave. Other vessels perform mid-ocean ballast exchange.

Bulkers, the vessel class most susceptible to the ballast water regulations, are under close scrutiny through the USCG's federal ballast water management inspection programme.

Ballast water inspections carried out by the USCG under the federal scheme are expected to become increasingly strict now that the US has type-approved three ballast water treatment systems available, with more soon to come.

Moore plans to continue lobbying state lawmakers in Washington to reconsider the fee by making sure they are aware of the strong federal oversight. "We just want to make sure that we're justifying the fees so these regulations are not duplicated and we can let the Pacific Northwest gateway compete on its business merits."

191 Pirate attacks across globe in 2016

12 Indian ports to see further investment in the coming year through Sagarmala

Port of Felixstowe

Container weighing taking place at Port of Felixstowe

Study reveals failure to weigh containers

Weighing containers became mandatory on 1 July last year but BMT Surveys research suggests that the new regulation is not being complied with.

BMT Surveys decided to conduct its own investigation into whether the verified gross mass (VGM) regulation was being effectively applied by going on board ships and finding out the aggregated declared weight of the containers, then calculating the actual weight of the ship through its draught level.

"The difference between the declared weight of the container cargo and ship and the actual measured weight is called the dead load," said BMT Surveys MD Jeroen de Haas. If the regulation was effective then the dead load before the regulation would be substantially different after the introduction of the rule.

"We conducted the survey from March to October 2016, conducting 377 vessel port call surveys before 1 July and 105 surveys after the regulation was introduced," de Haas explained.

Survey results showed that the dead load prior to 1 July was 1.85%, and there was little change after the rule's introduction, with the average dead load reaching 1.77%. In all incidents the weight was higher than the declared weight.

According to de Haas, "On a ship with a total weight of 100,000 tonnes, this is 1,770 tonnes. In other words, the total weight of approximately 60 fully loaded containers, each of 30 tonnes. Some ships even reported dead load numbers of more than 4,000 tonnes."

It is not the regulation that is the problem here, de Haas argued, but the enforcement of the rule by port state control that has led to the failure of cargo owners to change their mindset.

"If you set a speed limit on the road, but there is no one to police the traffic, you wouldn't expect drivers to keep to the speed limit," de Haas argued. "The rule is a good rule and the idea to put the obligation of complying with the regulation on to the shipper is a good one, but who checks?"

Exacerbating the problem of enforcement was an announcement in April last year by the US Coast Guard that "existing US laws and regulations for providing verified container weights are equivalent to the requirements in SOLAS Regulation VI/2", he said.

"The US Coast Guard sent a letter to the International Maritime Organization [IMO] outlining its determination that its current regulatory regime provides for other entities within the container export chain to work in combination with the shipper to determine and verify container weights, and it provides ships masters with container weights in order to

Notable numbers

47 Major ports complete a survey for IAPH's POL committee

2 Maximum IAPH training scholarships to compete for

ensure ships are loaded and operated safely".

For de Haas, this was a declaration by the United States that it would not effectively enforce the IMO rule and that other jurisdictions would therefore follow suit.

However, *P&H* has learned that some shipping lines conducted their own survey of the effectiveness of the new rule and weighed their containers before loading them on board a ship.

The outcome of those investigations was that cargo owners were substantially under-reporting container weights. One line said containers were declared as weighing 29 tonnes, just under the maximum permissible weight, but the line's investigation found that the actual weight was about 33 tonnes.

Peregrine Storrs-Fox, risk management director at cargo insurer TT Club, told *P&H*, "The industry recognises that a new piece of the rule is necessary to provide the verified gross mass of a container prior to it being loaded on to the ship. The field is being filled in on the form; the question is what is it being filled with? There is not much confidence in the industry and enforcement is almost non-existent."

Shipping lines have put a lot of investment into the weighing of boxes, said de Haas, but the system is not working for them. He added that the International Shippers Association calculated that the cost of weighing cargo containers amounted to 25% of the current container freight rate, about USD150/teu. In total that could cost the industry USD10 billion globally.

Piracy down but the threat remains

The International Maritime Bureau's (IMB's) annual *Piracy Report*, released in January, has revealed that attacks in the hitherto dangerous waters off Somalia have substantially decreased over the past two years, while attacks off Indonesia and Nigeria topped the table in 2016, with 49 and 36 respectively.

Overall there were 191 piracy attacks globally last year, but IMB director Pottengal Mukundan said the general trend was down, by about 30% on the 2012 figure of 297 attacks. However, he warned against complacency.

According to the report, the focus now is the southern Philippines, where local commentators suggest government control is limited. An insurgency involving Islamic militants is under way here while drug smugglers reportedly operate in the area.

Reports of eight crew being murdered following an attack on a fishing vessel on 9 January highlight the authorities' difficulties in patrolling the region. The fishing boat, carrying 15 crew members, was attacked by armed men when it was operating off Laud Siromon Island near Philippines' Zamboanga peninsula. Filipino Coast Guard vessels gave chase but were unable to apprehend the attackers.

In January anti-piracy groups from Asia and Africa gathered in Singapore to improve communication to counter attacks at sea and secure shipping lanes. The inaugural Meeting of Anti-Piracy Contact Points and Workshop on Piracy and Armed Robbery Against Ships was organised by the Maritime and Port Authority of Singapore (MPA) and the Regional Co-operation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) Information Sharing Centre.

Andrew Tan, chief executive of MPA, said the aim of the initiative was to enhance networking and information sharing among anti-piracy contact points from Asia and Africa, as well as with international bodies such as the International Maritime Organization (IMO), to combat the problem of piracy and sea robbery in these two regions.

"While the nature and circumstances of the problem differ between the two regions, there are valuable lessons and best practice to be gained in this sharing of experiences," he said.

The two-day meeting had 20 participants and was attended by the IMO, IMB, and NATO Shipping Command. It was part of Singapore's continued contribution to international efforts to counter piracy and sea robbery. In a statement, MPA said that, as a maritime nation and a hub port, Singapore placed a high priority on safe, open, and secure shipping lanes.

An international agreement that has been instrumental in repressing piracy and armed robbery in the western Indian Ocean and the Gulf has seen its scope significantly broadened to cover other illicit maritime activities, including human trafficking and illegal, unreported and unregulated fishing.

Masafumi Kuroki, executive director of ReCAAP, said the event was another step towards ensuring the safe passage of vessels for the shipping community. IMO representative Javier Yasnikouski, head of maritime security and facilitation at the maritime safety division, said the Singapore initiative was important, given the need for information sharing in the global fight against piracy.

"It contributes to and complements the IMO's efforts to raise awareness of maritime security issues that have an impact on international trade and the welfare of seafarers, and encourages a co-operative approach among IMO member states and partner organisations," he said.

In the same month, a meeting of signatories to the Djibouti Code of Conduct, held in Jeddah, Saudi Arabia, adopted a revised code of conduct to broaden its remit to cover all illicit maritime activity. Known as the Jeddah Amendment to the Djibouti Code of Conduct 2017, it builds on the earlier code, adopted in 2009. "The Jeddah Amendment calls on the signatory states to co-operate to the fullest possible extent to repress transnational organised crime in the maritime domain, maritime terrorism, illegal, unregulated and unreported fishing and other illegal activities at sea," IMO said in a statement.

7 May

IAPH 2017 conference opens in Bali

10

Ports added for Chinese investment

Facing tough challenges together

Indonesia Port Corporation II CEO Elvyn G Masassya hopes to meet you in Bali from 7-12 May, to take the talk truly global

PT Pelabuhan Indonesia II (Persero), or Indonesia Port Corporation II (IPC), in co-operation with three other Indonesia Port Companies (Pelindo I, III, and IV), is proud to host the 30th IAPH World Ports Conference 2017 in Bali.

Our aim is to become a world-class port operator and we know that to attain this status, relationship building and collaboration with other ports around the world is vital. Hosting the coming IAPH World Ports Conference gives us an invaluable opportunity and great momentum to build on our relationships within the global ports community.

The IAPH conference serves as a platform to exchange ideas between members and non-IAPH members of the global ports industry. We encourage port executives and experts from all over the world to attend and discuss a range of issues as well as make and renew a network of colleagues, both old and new.

Over the course of five days we hope to share with you the achievements IPC and Persero and Pelindo I, III, and IV have worked for over the past few years. Numerous improvements in hard and soft infrastructure have been implemented to provide a positive impact on Indonesia's economic growth.

Under the banner, 'Enabling Trade, Energising the World', we will discuss many of the most challenging issues facing the maritime industry. Open sessions will cover topics such as greenfield port projects, special economic zones, port hinterland connectivity, multimodal logistics, and Indonesia's maritime transformation. We hope to share the debate with as many of you as possible.

Country of change

Indonesia is one of the world's largest maritime nations, with more than 95,000 km of shoreline. It has recently reiterated its commitment to the development of harbors, ports, and other maritime-related industries as part of its aim to be a global maritime axis.

To give you an example, currently we have a number of greenfield projects in Indonesia moving forward, including Kalibaru/New Priok Terminals in Jakarta, Kijing Port in West Borneo, Seget Port in West Papua, and CBL Inland Waterway in West Java, Manyar Port and Banyuwangi Boom Marina in East Java, Gilimas Port in Lombok, Makassar New Port in South Celebes, Bitung Container Terminal in North Celebes, Sorong Port in West Papua, and Kuala Tanjung Multipurpose Port, including its adjacent industrial estate in North Sumatera.

Our country has unique port

Social programme

Monday 8 May – Early cocktail reception

The Gamelan Ballroom at Sofitel Bali Nusa Dua Beach Resort offers the perfect setting to meet and catch up with delegates, network, and socialise. Shuttle bus available.

Tuesday 9 May – Welcome dinner at Bali Nusa Dua Convention Center

The host of IAPH 2017 invites you to a welcome dinner and reception at the outdoor area of Bali Nusa Dua Convention Center (BNDCC), Nusa, the conference venue.

Friday 12 May – Farewell gala dinner at Garuda Wisnu Kencana Cultural Park

Conference host, Indonesia Port Corporation I, II, III, and IV invites you to an exciting evening of dinner and entertainment as the conference closes. It will be held at Garuda Wisnu Kencana Cultural Park located on the famous Jimbaran Bay. This exotic and spectacular location features a symbol –Wisnu, the Hindu- Balinese god of life and peace, set astride a statue of the Eagle Garuda. Shuttle bus available.

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characteristics due to its position as an archipelago nation with numerous world-class tourist destinations. We chose just one of these – Bali – as the location for the conference.

The 30th IAPH World Ports Conference 2017 in Bali will be the first biennial IAPH conference to be held after the adoption of the new IAPH constitution, and participants will experience a speedier decision-making process, leaving more time for relevant and valuable discussion. The IAPH technical committees will discuss critical issues for members and present the results of the two-year work programmes.

Tackling challenges

Our IAPH membership is very important to us. We consider IAPH as more than just an association but also an effective platform in the port and logistics global network, containing potential investors and strategic partners for Indonesia's port and logistics infrastructure projects as well as exhaustive sources for best practice, industry knowledge, and insights. We have been IAPH members for decades and our membership and participation in its events have benefited us significantly in our line of business.

IAPH is more relevant than ever, especially when considering the tough challenges facing the worldwide port community. These challenges include environmental regulations, fleet oversupply, unequal distribution of port and logistics infrastructure, piracy, and the growing trend for industry consolidation.

To take one challenge, the international focus on climate change has shed light on the shipping industry's need to reduce emissions, which has led to environmental regulation being implemented by international bodies, such as IMO. Several countries around the world have implemented stricter environmental regulations regarding ship emissions.

The most recent International Maritime Bureau figures show that piracy is still a very worrying issue in the Gulf of Guinea and Indonesian waters. These are not problems that individual nations can address alone.

Part of the team

The problem of capacity oversupply also still haunts the shipping industry. Prior to the global economic recession in 2008, when demand from emerging markets pushed freight rates to their highest in several decades, the industry responded with a long list of orders for new ships, thus increasing capacity. When the recession hit, it created the problem of overcapacity. This has been exacerbated by the low freight rates seen over the past several years and has led to the growing trend of consolidation of global shipping companies and port industries amid the ever increasing competition.

Now is not the time to stand alone. IAPH and its members can join forces, in conjunction with its technical committees and conference, and play a pivotal role as a unique global forum, strengthening co-operation and sharing experiences among the world's ports. To effectively deal with global challenges, IAPH will actively collaborate with stakeholders and other international organisations.

This co-operation and collaboration may be realised as part of programme and/or research conducted by the respective IAPH technical committees, as well as by the exchange of ideas, to provide solutions for many problems and enable the sustainable development of world ports.

Accompany persons programme

Wednesday 10 May- Cooking class and shopping in Ubud (all day)

Visit UC Silver in Batubulan, in Gianyar, a legendary sterling silver and jewellery design company where you can see the jewellery-making process.

Also that day, visit the Blanco Renaissance Museum Campuan in Ubud and see an interesting collection of paintings by Antonio Blanco, Bali's most famous and successful artist.

Roll up your sleeves for an interactive cooking class under the guidance of an expert chef at the Royal Pita Maha Resort in Ubud. Here you will learn how to prepare authentic Balinese dishes using indigenous herbs and spices. The food of Bali celebrates the island's rich cultural heritage, where elaborate ceremonies involve praying and feasting together.

Afterwards, visit Ubud Art Market to explore and shop for handicrafts, for which Bali is renowned. Lunch will be in Ubud.

Uluwatu Temple: one of the cultural visits

Shutterstock

Thursday 11 May- Uluwatu and traditional craft (all day)

Visit Uluwatu Temple, also known as Pura Luhur Uluwatu, one of six key temples believed to be Bali's spiritual pillars. It is renowned for its magnificent location, perched on top of a steep cliff approximately 70 m above sea level. This temple also has splendid sunset backdrops.

Afterwards, watch the Balinese classical dance of Panji Semirang. The dance symbolises the courage of Galuh Candrakirana, who went to find her lost fiancé, Panji, in the battlefield.

The programme continues with activity classes at Bumbu Nusantara Restaurant, where you will learn about Bali's fabric, batik, and woodcarving. Lunch will be at Bumbu Nusantara Restaurant.

Friday 12 May- Barong dance and Tampak Siring Temple

Visit Batubulan village and experience Bali's cultural heritage while watching Barong, a mythical lion-like creature, dance. This dance symbolises the everlasting struggle between good and evil spirits.

Next visit Batubulan, which is home to a number of stone carvers. Divinities and demons carved from sandstone (paras) decorate and protect houses and temples along the road. Batubulan also has excellent dance and theatrical performances.

Afterwards, visit Tirtha Empul temple, better known as Tampak Siring temple or Holy Water temple, built around a sacred spring. This Hindu temple is located in a valley between two hills with big springs and is considered sacred by local residents. It is said to be a place that melts all the bad influences in the body and purifies the soul and mind. The temple has traditional showers sourced from the springs that have been used by the Balinese for more than 1,000 years for good health and prosperity.

Technical committees in Bali

During the Bali Conference in May, IAPH's nine technical committees will meet to discuss the outcomes of their work plan for the 2015–17 term.

If you are not a committee member but an IAPH member and would like to join the meetings you are most welcome to attend. Please register on arrival at the Bali Conference.

Panama Maritime Authority

IAPH in Panama. In Bali, the technical committees will be updating members on their 2015–17 workplans

Port Planning & Development Committee
Over the past two years, the committee has worked on projects such as 'Guidance to trailers' behaviour at landside terminal gates' and 'Optimised layout of modern multipurpose terminals: 1. ro-ro/cars, 2. Heavy load and project cargo.' The interim reports of the projects were presented at the committee meeting last year, with the final outcomes to be showcased at the forthcoming committee meeting in Bali.

Port Operations & Logistics Committee
During the term 2015–17, this committee has worked on three projects: 'Ro/ro terminal operations' and 'Port performance indicators', with a report on 'Study on productivity and key indicators of container terminals' presented in December. The final outcome of the project will be presented in Bali.

Trade Facilitation & Port Community System Committee
Three projects have been the focus of this committee's work: 'PCS benchmark report', 'Development report on trade facilitation and PCS in WCO,UN/CEFACT, EU', and 'Review of IAPH IT Award'.

Port Safety & Security Committee
The committee has shared updates and best practice throughout the two year work period in relation to IMO SOLAS (Safety of Life at Sea) regulations, port security, contingency plans in port areas, LNG fuel bunkering, mooring safety at ports, ship-to-ship (STS) transfers, and so on.

Port Environment Committee
The Bali meeting is the first under its new chairman. Over the past two years, the committee has shared updates on the IMO MEPC (Marine Environment Protection Committee), Ballast Water Convention, NOx emission control areas, and kept members informed about the World Ports Climate Initiative (WPCI).

Legal Committee
The Legal Committee has shared updates and best practice in relation to the IMO Legal Committee Meeting, places of refuge, and shore-based pilotage, and released a new edition of *Introduction to Maritime Law for Port Officials* on the IAPH website.

Communication & Community Relations Committee
The Bali meeting is the first under its new chairman. IAPH's scholarship programmes were the main topic of discussion for the 2015–17 word period, including the format and applicant forms for the 2017 awards, the IAPH training scholarship and its promotion, and the new IAPH website. It has also shared presentations on best practice for port community relations.

Port Finance Commitee
Dr Walter Kemmsies, chief economist at Moffat and Nichol, was invited by the committee to share his thoughts on best practice in port finance and economics in Panama. The committee has also collected industry-wide financial and economic statements for the IAPH library.

Cruise Committee
During the term 2015–17, the committee shared best practice on cruise-related topics among IAPH member ports, including information on how to reinforce relationships with cruise shipping lines. More will be revealed in Bali.

We value your opinions

Do you have strong views about any of the articles in *Ports & Harbors*?
Are there other industry issues you feel strongly about?
Email your views to ph@iaphworldports.org and we'll be happy to include them

Women, a chance to raise your profile

Following the first IAPH Women's Scholarship (2015/16), the IAPH Women's Forum is delighted to offer again these two wonderful opportunities to female IAPH members. Both scholarships represent a fantastic opportunity to impress your port peers with your knowledge and potential, raise your profile within the industry, and establish new contacts.

The first of the two scholarships is the biennial training scholarship, which includes USD15,000 to supplement two years' training at a college, university, or other port-related training institution. You also get the chance to attend the biennial IAPH World Ports Conference in the second year of your training and deliver an original presentation.

The second scholarship, the Women's Forum Annual Meeting Scholarship, includes up to USD5,000 to attend and deliver your original presentation at the Women's Forum panel, either at the 2018 Mid-term Conference or the 2019 World Ports Conference.

To be in with a chance of winning one of these scholarships, you must complete an application form explaining why IAPH should fund your training and what you could bring to the Women's Forum.

Don't delay, as the 25 March deadline is imminent. For more information, please contact the IAPH secretariat by emailing info@iaphworldports.org

MORE INFO: www.iaphworldports.org/news/3282

Committee reports on productivity and key indicators

Two years hard work have resulted in the IAPH Port Operations and Logistics Committee, chaired by Masaharu Shinohara of Kobe-Osaka International Port Corporation, Japan, releasing the final report *Productivity and key indicators of container terminals*. It was published online in December 2016. Upon publication, Shinohara commented, "This comprehensive report attempts to analyse container terminals' performance by looking into basic numerical data regarding container terminal operations and statistically processing the data that were collected by a questionnaire distributed to major container terminal operators in the world."

IAPH members can read and download the report on the committee page. Please contact IAPH secretariat if you forget the username and password.

MORE INFO: www.iaphworldports.org/members/port-operations-logistics-committee

Membership notes

The IAPH Secretariat is pleased to announce that the following have joined the association

Associate member

MTBS

Address: Wijnhaven 3E, 3011 WG Rotterdam, P.O. BOX 601, 3000 AP Rotterdam, Netherlands

Telephone: +31-10 286 5940

Email: secretary@mtbs.nl

Website: mtbs.nl

Representative: Paul van Eulem, director

Nature of business activities: International finance and strategy advisory firm, offering entrepreneurial business solutions to clients in the maritime and transport sector

IAPH training scholarship

Any IAPH member from a port in a developing country can apply for this training scholarship, which aims to give the winning recipient the opportunity to attend advanced port training programmes overseas in order to gain the latest knowledge on port management and operation and expand their personal network of contacts. The maximum amount of funds offered to an individual is USD5,000.

Since the scheme was set up in 1980, more than 100 people have received financial assistance through the scholarship. Distance-learning programmes are offered for members who cannot travel.

A typical applicant would be a staff member with an IAPH regular member port in a developing country.

A maximum of two scholarships can be awarded each year. Applicants for training scholarships should submit a form to the IAPH secretariat at info@iaphworldports.org.

The IAPH Communication and Community Relations Committee makes the final decision on selection and the awarding of a scholarship.

MORE INFO: www.iaphworldports.org/awards

2017 2018 2019

Dates for your diary

A selection of forthcoming maritime courses and conferences

March

20–31: APEC seminar on legal aspects on port operations and trade
Antwerp, Belgium
www.portofantwerp.com/apec

20–31: Strategic port policy, governance and stakeholders management
London, UK
www.ttpminternational.co.uk

20–22: IPER's seminar on maintenance of port structures
Le Havre, France
www.iper.fr

20–24: IPER's seminar on maintenance of port structures
Le Havre, France
www.iper.fr

20–24: IALA workshop on sustainable light and power for the next generation
Koblenz, Germany
www.iala-aism.org

21–23: Intermodal Asia 2017
Shanghai, China
www.intermodal-asia.com

22–23: 11th Indian Ocean Ports and Logistics 2017 exhibition and conference (*20% discount for IAPH members)
Antananarivo, Madagascar
www.transportevents.com

26–30: Seminar on dredging and reclamation (Abu Dhabi)
Abu Dhabi, UAE
www.iadc-dredging.com

27–28: Navigating a changing climate: moving towards low carbon and resilient waterborne transport infrastructure
Brussels, Belgium
www.pianc.org/thinkclimate.php

27–31: IPER's seminar on port information systems and port single windows
Le Havre, France
www.iper.fr

April

3: International Symposium on LNG bunkering in Yokohama
Yokohama, Japan
eventregist.com/e/LNG2017

4–6: AAPA Spring Conference
Washington, DC, USA.
www.aapa-ports.org

11–12: 9th International conference and exhibition
Norfolk, Virginia, USA
www.mcimedia.com

17–28: Strategic port pricing and commercial billings management
London, UK
www.ttpminternational.co.uk

18–20: TransRussia 2017
Moscow, Russia
www.transrussia.ru

19–20: 17th Intermodal Africa (*20% discount for IAPH members)
Cape Town, South Africa
www.transportevents.com

22–28: Singapore Maritime Week 2017
Singapore
www.smw.sg

24–26: Breakbulk Europe 2017
Antwerp, Belgium
www.breakbulk.com

24–27: International port seminar
Delft, Netherlands
www.unesco-ihe.org/short-courses

25–26: TOC Asia
Singapore
www.tocevents-asia.com

25–28: 10th International Chemical and Oil Pollution Conference and Exhibition (ICOPCE)
Singapore
www.icopce.com

26–28: Singapore Maritime Technology Conference (SMTC)
Singapore www.smtcsingapore.com

27 onward Diploma for harbor masters
(*15% discount for IAPH members) Distance learning
www.lloydsmaritimeacademy.com/FLR2799AA

May

7–12: The 30th IAPH World Ports Conference
Nusa Dua, Bali, Indonesia
www.iaphbali2017.com

8–19: APEC seminar on port engineering
Antwerp, Belgium
www.portofantwerp.com/apec

Hanshin International Port Corporation

Ports' choice may not be automatic

Masaharu Shinohara, executive officer at Kobe-Osaka International Port Corporation, chair of IAPH Port Operations and Logistics Committee, and newly elected Vice President for Asia, South/West, East and Middle East Region, emphasises the value of productivity benchmarking for container terminals

> "Reduction of a port labour force is a very difficult and touchy problem to cope with"

Last year the IAPH Port Operations and Logistics Committee conducted a worldwide survey on container terminal productivity and key performance indicators. It sent a questionnaire to 47 major container ports and got responses from 19, covering 34 terminals. The response rate was very high considering performance data are company-specific proprietary information that terminal operators do not want to disclose. The final report is now available on the IAPH website.

I would like to express my deepest gratitude to those who answered the questionnaire, although I am a little disappointed that most of the major terminal operators in the European region declined to answer, so we could not gather data on the automated terminals there.

In Japan, there is only one automated container terminal, in Port of Nagoya. Japanese port workers have the world's most sophisticated manual labour skills: 48 container moves per crane per hour and berth productivity of 186 moves per hour are by far the highest in the world in ports without automation.

Needless to say, in the future, some of Japan's terminals must somehow automate operations to cope with labour shortages and enhanced safety standards.

Reduction of a port labour force as an inevitable outcome of automation is a very difficult and touchy problem to cope with. Abrupt introduction of complete automation to Japan's container ports could cause tremendous disruption. We greatly respect the enhanced morale and extremely diligent work ethic of Japanese port workers, so we have to find some delicate balance between complete automation and use of our extraordinary highly skilled manual labour. P&H

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The International Association of Ports and Harbors (IAPH) is a global alliance representing over 180 ports in about 90 countries. Together, IAPH member ports handle over 60% of the world's sea-borne trade and nearly 80% of the world's container traffic. It is a non-profit-making and non- governmental organisation headquartered in Tokyo, Japan.

IAPH provides a platform to develop and foster good relations and co-operation among the world's ports and harbors through forums where opinions and experiences can be exchanged. It promotes the role ports play in waterborne transportation and in today's global economy.

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- **A chance to influence decisions at IAPH's technical committee meetings**
- **Networking opportunities at IAPH's meetings and conferences, plus reduced registration fees for these events**

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