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container handling and port equipment



DK086
Linde C4540TL
Year of manufacture: 2013



DK085
Linde C4540TL
Year of manufacture: 2012



D3458
Linde C4535TL
Year of manufacture: 2008



D3470
Linde C4234TL
Year of manufacture: 2011



D3384
SMV 4535TB5
Year of manufacture: 2008



D3450
SMV 108TB6
Year of manufacture: 2012



D3452
SMV 108TB6
Year of manufacture: 2011



D3447
Kalmar DRF450-65S6
Year of manufacture: 2013



D3435
Kalmar DRF450-65S5L
Year of manufacture: 2011



D3445
Kalmar DRF450-60S5
Year of manufacture: 2010



D3463
Kalmar DRF420-60S5
Year of manufacture: 2009



D3457
Kalmar DRF450-65S5
Year of manufacture: 2006



D3415
Kalmar DRD420-65S5
Year of manufacture: 2002



D3448
CVS Ferrari F479.5
Year of manufacture: 2008



DK098
CVS Ferrari F269.5
Year of manufacture: 2001



D3469
CVS Ferrari F258.6
Year of manufacture: 2003



D3439
Fantuzzi CS45KS
Year of manufacture: 2005



D3449
Fantuzzi SC45KM
Year of manufacture: 2003



D3436
Valmet TD4212
Year of manufacture: 1994



D3453
Steinbock Boss G4212CH/MKIVA-2
Year of manufacture: 1990



D3456
Kalmar DCF100-45E7
Year of manufacture: 2008



D3455
Kalmar DCE100-45E7
Year of manufacture: 2008



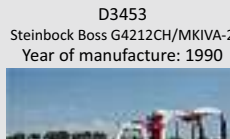
D3460
Kalmar DCE100-45E7
Year of manufacture: 2008



D3462
Svetruck ECS-7H-DS
Year of manufacture: 2011



DK089
SMV 5/6 ECB90
Year of manufacture: 2007



DK038
Herbst - ATAIR HFH ATAIR IX D620
Year of manufacture: 2008



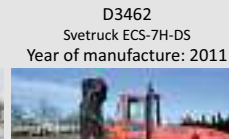
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Kalmar DCF420-1200
Year of manufacture: 2008



D3389
Kalmar DC32-1200
Year of manufacture: 1991



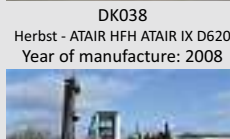
D3464
Hyster H18.00XM-12
Year of manufacture: 2008



D3395
Hyster H16.00XM-12
Year of manufacture: 1999



G0870
Hyster H16.00XM-6
Year of manufacture: 2008



D3328
CVS Ferrari F16
Year of manufacture: 2003



D3397
Svetruck 13.6-120-32
Year of manufacture: 2008



D3255
Svetruck 13.6-60-30
Year of manufacture: 1996



D3442
Svetruck 1260-30
Year of manufacture: 2011



D3313
Manitou MRT1850
Year of manufacture: 2001

G0870
Hyster H16.00XM-6
Year of manufacture: 2008

D3328
CVS Ferrari F16
Year of manufacture: 2003

D3397
Svetruck 13.6-120-32
Year of manufacture: 2008

D3255
Svetruck 13.6-60-30
Year of manufacture: 1996

D3442
Svetruck 1260-30
Year of manufacture: 2011

D3313
Manitou MRT1850
Year of manufacture: 2001

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Shipowners save money with ESI as more incentive providers join the scheme

Photo: Shutterstock/Carolina Lorenzo

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PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

PORTS & HARBORS

Published bi-monthly by the International Association of Ports and Harbors (IAPH), edited and produced by IHS Maritime & Trade.

IAPH

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SUBSCRIPTIONS

International Association of
Ports and Harbors
Price Japanese ¥12,000 (US\$120 / UK£80 /
€90), postage included. Visa and MasterCard
accepted or for Bank Transfer. You do not have
to be an IAPH member to subscribe – contact
the IAPH at:
7th Floor, South Tower,
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Open dialogue

IAPH should seek ways to work with IMO on
environment, business facilitation and security



Susumu Naruse

Secretary General – The International
Association of Ports and Harbors



I was invited by the PECC (Pacific Economic Cooperation Council), to make a presentation on IAPH's strategies to mitigate global warming as well as to tackle air quality issues in general at ports. Those present recognised that ports in the Asia/Oceania region should be encouraged to take much more aggressive action on the issue because, despite the region's overwhelming cargo volumes at its ports (of which much more than 50% is containerised), appropriate countermeasures have not yet been taken. For example, there are no designated emission control areas (ECAs), as created by IMO, and there are far fewer terminals equipped with an onshore power supply system than in Europe and North America. I hope that ports and governments in the Asia/Oceania region will take more substantial measures to mitigate a large volume of gases emitted by their ever-growing port activities.

I visited Mr Lim, secretary-general of IMO, at his office in London to talk about further co-operation between IMO and IAPH. We discussed a variety of issues at the meeting, including

actions the shipping and port industries have to take following the Paris Agreement last year, the need to further facilitate port and trade business transactions, for example, to augment a Port Community System from a national to a regional level as is being worked on in the EU and North Asia, and the need to develop and synchronise cyber security measures in the shipping and port industries.

I would like to create an arena for the IMO and IAPH to work together on port issues.

In addition, I believe that the ISPS Code should be proactively reviewed in order to address possible terrorist attacks at ports following the recent incidents in Paris and Brussels. When the code came into effect more than 10 years ago, it was announced that it would be reviewed and updated every few years, but it has not been revisited since its inception. I think it is the time for the maritime community to refine the code in order to fight against the emerging threats.

The new Panama Canal will finally be operational this June. We cannot make it on the opening day, but the IAPH Mid-Term Conference in Panama will be a great opportunity to see the new Panama Canal with your own eyes. I think it is the experience of a lifetime for the people in the port industry. Let's get together in Panama this May. **PH**

“I would like to create an arena for the IMO and IAPH to work together on port issues”

Printed by Warners Midlands plc

The Maltings, Manor Lane, Bourne, Lincolnshire PE10 9PH ISSN 0554-7555



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Port updates

▶ INDIA'S PORTS SEE PROFIT

India's ports sector continued its financial recovery in FY 2015/16 as its 12 major state-owned ports booked an increase in operating profit of 19%. The 12 public port trusts registered a combined operating profit of INR4,268 crore (USD641.5 million) in the year ended 31 March, an increase of INR670 crore on the previous year, Indian minister of shipping, road transport, and highways Nitin Gadkari said in a statement issued by the country's Ministry of Shipping.

▶ DPW EYES SILK ROAD

DP World has expressed interest in making further investments along the China-Europe Silk Road following a meeting in Dubai between group chairman and CEO Sultan Ahmed Bin Sulayem and Georgia's prime minister, Giorgi Kvirikashvili. DP World is looking at building a marine terminal, inland terminal, logistics park, or economic zone, said the company.

▶ SECURE INVESTMENT

Transnet National Ports Authority has introduced a new port security system valued at INR843 million (USD53 million). The CCTV system will be integrated between all port sites and the head office to give a bird's eye view of the port security environment. It comprises 2,100 high definition cameras across the various sites as well as long-range cameras to monitor port entrances and outer anchorages.

▶ CRUISE COMMITMENT

The Spanish Ministry of Public Works and Transport has revealed that its cruise terminals saw traffic of 8,435,966 passengers in 2015, a 9.4% increase compared with 2014. Barcelona, the Balearic Islands, Malaga and Valencia, the Bay of Cadiz, Vigo and A Coruña, and the Canary Islands account for 96% of national cruise traffic.



Mormugao Port rises on coal traffic

Port of Mormugao will develop its iron ore terminals into dry bulk terminals

The Port of Mormugao on India's west coast is working to revive its fortunes, which have fallen over recent years because of the steep decline in iron ore traffic. The major state-managed bulk port had enjoyed a reputation as the major gateway for iron ore exports, mainly to China and Japan. From a peak of 32.35 million tonnes in 2010–11, iron ore volumes fell to just half-a-million tonnes in 2014–15. The ban imposed on iron ore mining by India's Supreme Court in the state of Goa, where Mormugao Port Trust (MPT) is located, coupled with the falling demand from China, contributed to the decline in traffic.

The port has successfully marketed itself for other cargoes since 2013. MPT handled 14.71 million tonnes in 2014–15 and has set itself the target of 20 million tonnes for 2015–16. So far, it has handled 18.8 million tonnes.

The port has managed to capture some of the increasing coking coal imports, along with finished steel products, including hot and cold rolled steel for export. General cargo, including granite, wood chips, fertilisers, and

bauxite, has added to traffic volumes as well. Container traffic, although in modest volumes at 25,000 teu a year, have also cushioned the impact of declining iron ore volumes.

"Imported coking coal traffic and finished steel exports through berth number six, managed by private operator South West Port Limited, is poised to grow in the coming years," said Prema Kumar, PA (Tech) to MPT's chairman. South West Port is owned by JSW, a private Indian steel and power producing major. "This would be owing to planned expansion of JSW's steel plant at Bellary in South India. Imported coal volumes will also grow up from berth number five, operated by our another private operator, Adani Mormugao Port Terminal Pvt Ltd, as well, due to numerous power and steel plants coming up in state of Karnataka, south India, the hinterland of MPT."

Imported coking coal volumes have jumped at both the private berths from 7.8 million tonnes in 2014–15 to 9.6 million tonnes in 2015–16 up to March.

Under its master plan, the port is redeveloping the three berths

used for iron ore handling and combined, the berths will have a total quay length of 1.05 km to handle dry bulk cargo and 65 acres (23 ha) of port land will be claimed to accommodate the development. Adani Mormugao Port Terminal, JSW, and Sterlite, an Indian private mining entity, have been shortlisted to develop and operate the berths by MPT as a public-private partnership.

Capital dredging is also taking place at the port's entrance channel to increase the draught levels from 14.5 m to 19 m at cost of INR193.5 crores (USD29 million). The port will soon call for tenders to increase the depth at berths five and six to allow the port to accommodate Capesize vessels. MPT at present can handle only vessels between 89,000 to 90,000 dwt owing to draught restrictions.

Slow onward travel of coal and other cargo via the railway remains a major challenge. This is because of major route congestion in Karnataka. However, a double 245 km rail corridor is currently being developed by Indian Railways between Hospet and Tinaighat, the steel-and-power-plants belt in Karnataka.

Busan offers loans to struggling shippers

Busan Port Authority (BPA) has set up a KRW2.5 billion (USD2.3 million) fund to assist compatriot shipping and logistics companies in financial difficulty.

Loans will be disbursed from the SME Mutual Fund, which aims to assist companies that transport cargoes via South Korea's largest port.

Each company can borrow up to KRW200 million (USD172,000) from the fund, which will charge interest rates that are lower than those of commercial banks, depending on the borrower's credit rating.

BPA president and CEO Woo Ye-jong said, "We decided to share the burdens of small businesses in the maritime and port sectors amid the downturn in the shipping market by providing funding for

their operations, given the high interest rates of commercial banks." Nine companies have so far received loans from the fund.

Since 2015, five South Korean shipping companies – Samsun Logix, Daewoo International Shipping, Seondo Shipping SW Shipping, and Chang Myung Shipping – have applied for court protection as structural overcapacity persists in dry bulk and general cargo shipping.

The country's two largest container carriers, Hanjin Shipping and Hyundai Merchant Marine, have been selling assets and restructuring debts to stave off severe liquidity shortfalls. Last month, HMM sold most of its stake in Hyundai Pusan Newport Terminal in Busan New Port.

Busan handled 19.45 million teu in 2015, an increase of 4.1% year on year. This improvement, however, fell short of BPA's target of 19.5 million teu because of the slowdown in growth of global and domestic economies.

Nevertheless, BPA hopes to achieve 20 million teu of throughput this year by offering subsidies for transshipment cargo, establishing storage areas in Busan New Port, and improving customer service. Terminal operations in Busan North Port will be integrated to speed up cargo handling.

Woo said, "As one of the world's largest container ports, we must focus our efforts on the international markets to ensure our continuing growth and development."

Port updates

► ROTTERDAM RE-ROUTES

The Port of Rotterdam Authority is to redirect 4 km of the first section of the Betuwe Route (the double-track railway between Rotterdam and Germany). As of 2020 the line will no longer run over the Caland Bridge, so shipping and rail traffic will cease to get in each other's way, says the port.

► SAFETY AWARD FOR APMT

APM Terminals Buenos Aires, operator of Terminal 4 in Argentina's primary port, is winner of ICHCA International's first annual Innovation in Safety Award for its Safety Logging System, used to improve safety on mobile cargo handling equipment such as forklifts.



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Port updates

► PIRAEUS PRIVATISED

The president of China COSCO Shipping Corporation (COSCOCS), Xu Lirong, has promised workers at Piraeus Port that instead of cutting the labour force the company will add jobs through continued investment in infrastructure. Piraeus Port was officially sold to the state-owned Chinese shipping giant on 11 April, sparking a march through Athens and a 24-hour strike by dockworkers who fear job losses.

► TIANJIN TERMINAL

Tianjin port in north China started construction of a new general terminal, Number 26, for metals and ore in April. The project, costing CNY1.41 billion (USD216 million), includes a 200,000-tonne general terminal designed to handle 9.8 million tonnes of cargo every year and a 251,500 m² depot. It is scheduled to be completed in 2018.

► SINGAPORE DUES

Port concessions have been granted to dry bulk operators in Singapore in light of the overall depressed market. According to the Maritime and Port Authority of Singapore (MPA), an additional 10% in port dues concession will be given to dry bulk carriers that carry out cargo work with a port stay of no longer than five days as part of a short-term cost relief package, with effect from 15 April.

► EUROGATE UP

German container terminal group Eurogate posted in April a significant rise in earnings for 2015 despite pressure on throughput volumes and tough competition among Europe's north range container ports. The operator recorded a 19% increase to EUR91 million (USD103 million) in its operating result on EUR591 million in revenues (+4.5% year on year).



MedPort Tanger is scheduled to open in 2019

APMT to develop new Tanger facility

Port operator APM Terminals is to develop a new transshipment terminal to be named MedPort Tanger with an annual capacity of five million teu and costing EUR758 million (USD 859 million).

Scheduled to become operational in 2019 and serving multiple trades, it will be Africa's first automated terminal and APMT's parent company Maersk Line is expected to be an important customer.

MedPort Tanger will complement the current operations of APMT's existing Tanger facility at Tanger Med 1 port, which started operations in July 2007 and handled 1.7 million teu in 2015. It will increase the port's total annual throughput capacity to over 9 million teu.

APMT has signed a 30-year concession agreement with the Tanger Med Special Agency (TMSA), which has responsibility for the development and management of the Tanger Med port complex.

"Quay wall construction and site reclamation dredging for the first 1,200 m of what will be a

2,000 m quay has already been completed by the Tanger Med Port Authority, which is part of TMSA," an APMT spokesman told *P&H*. "Timing of the work to complete the other 800 m of quay depends on future commercial demand."

"The alongside depth at the new terminal will be at least 18 m, and we will transfer Maersk Line containers to it and increasingly handle other customers at our existing terminal. MedPort Tanger will be able to handle the largest vessels in Maersk Line's fleet and we'll install at least one ship-to-shore crane per 100 m of quay."

Medport Tanger will feature the "state-of-the-art automated technology pioneered at our Maasvlakte II Rotterdam terminal, and therefore a higher degree of automation than seen before in Africa", the spokesman said, adding that it will lead "not only to a large number of new jobs but different types of jobs, placing strong emphasis on training and development of people".

"We will create a new organisation in Tanger, and be

responsible for the completion of the terminal yard, surface, buildings, container handling equipment, and integrated automated systems."

The Tanger-Med port complex is strategically located on Africa's northwest coast, near the mouth of the Mediterranean Sea at the Strait of Gibraltar, and is the second-busiest container port in Africa after Port Said in Egypt.

The western Mediterranean is an important market for APMT, whose Algeciras facility, on the Spanish side of the Strait of Gibraltar, operates in tandem with Tanger as an integrated western Mediterranean transshipment hub. Algeciras handled over 3.5 million teu in 2015, and has recently completed a major crane and quay infrastructure upgrade, allowing it to accommodate container ships of 18,000 teu capacity and above.

"The location of the Tanger and Algeciras facilities provides a natural transshipment location for cargoes moving to and from Africa from Europe and the Far East on the primary east/west shipping route through the Mediterranean Sea," the company points out. "Over 200 cargo vessels pass through the Strait of Gibraltar daily on major liner services linking Asia, Europe, the Americas, and Africa."

Ports pilot cloud-based stowage platform

Hamburger Hafen und Logistik (HHLA), PSA International, DP World, Modern Terminals, and the port of Tanjung Pelepas have been joined by Maersk Line, MCC Transport, OOCL, and NYK Line to pilot Xvela, the world's first cloud-based vessel stowage and collaboration platform.

"It means terminals will be able to access departure stowage plans as ships leave prior terminals, allowing them to allocate resources and resolve potential issues earlier than ever before," said Robert Inchausti, Xvela's chief technology officer. "Carriers benefit from increased transparency of terminal operations throughout the stowage process and the ability to share select information in real time with alliance partners.

The tangible goals of the pilot programmes are increased operating efficiency and asset utilisation.

"We know that widespread acceptance is essential to the success of a collaboration platform," he said, "so we are designing Xvela to work with the optimisation tools that carriers and terminals are already using."

Asked if the pilot programmes would also take into account container verified gross mass (VGM), Christopher Mazza, VP and chief customer officer said, "Xvela will ultimately support the VGM requirement through its support for BAPLIE 2.2 and 3.1 [a messaging system used to share stowage plans]. These versions of the BAPLIE, however, will not be in use

by our partners within the context of the pilots, as the programmes will actually be wrapping up before the VGM requirement goes into effect on July 1."

Xvela is a new company that uses the vessel stowage software from Navis PowerStow. Its new system enables "users to easily connect and co-ordinate vessel stowage planning and execution activities", said Inchausti. "That results in reduced vessel operation and terminal costs and improved utilisation of critical crane, vessel, and manpower resources. Given the breadth of participants in the pilot programmes and the diversity of planning solutions currently in use across those organisations, it's key that Xvela is both TOS- and stowage software-agnostic."

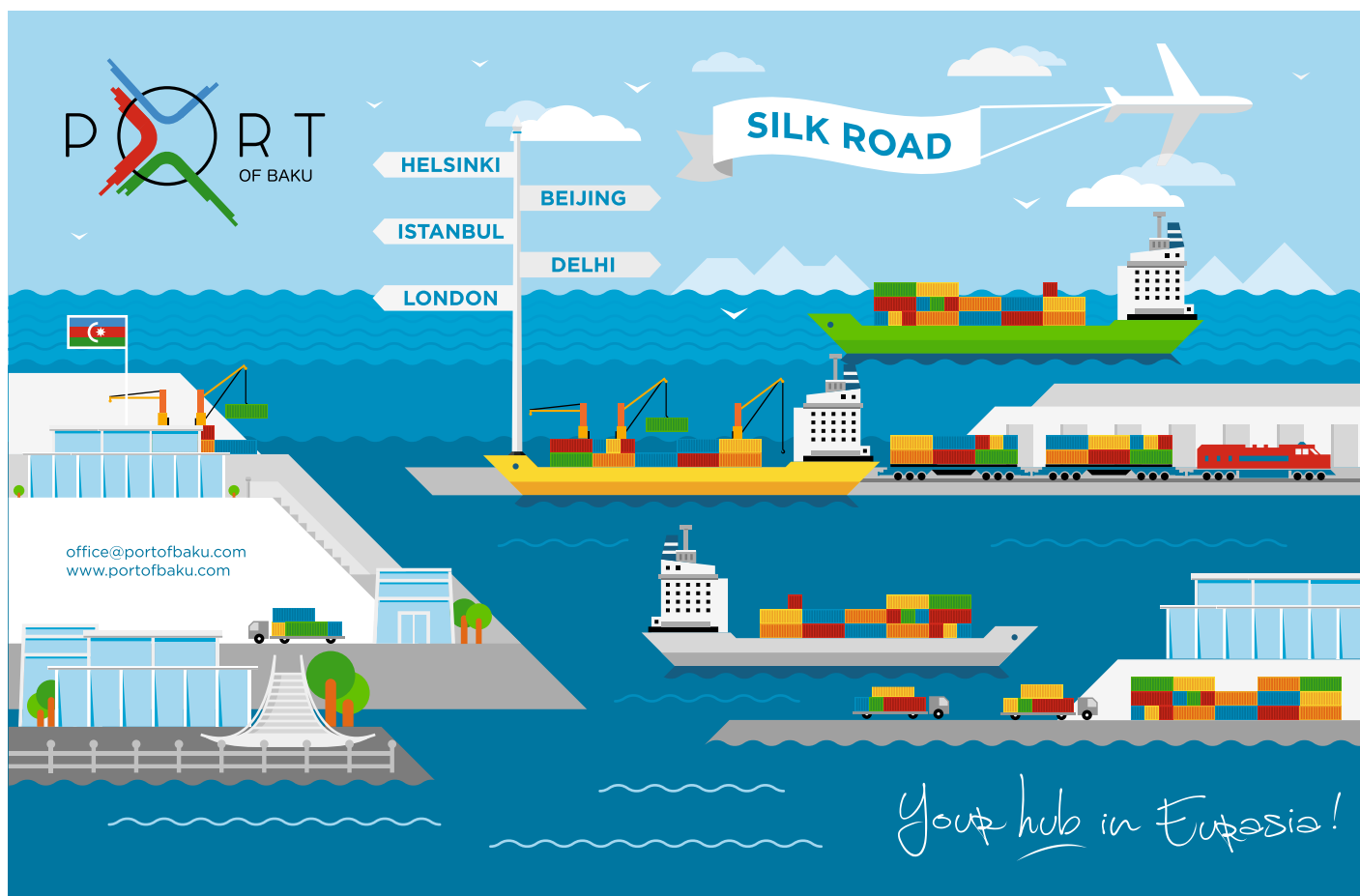
Port updates

► BUNKERS FOR KLANG

PetroChina has leased fuel oil storage tanks in Malaysia's Port Klang to develop the port into a regional bunkering hub. Currently, Port Klang has a total of 220,000 m³ of available capacity for fuel oil and the China-based oil trader is believed to have leased all of it in March.

► BELGIUM LINKS

The port authorities of Montreal, Canada, and Antwerp, Belgium, renewed their co-operative agreement on 12 April. The first agreement, signed in March 2013, resulted in four trade missions between the two ports which generated business contacts.



The Panama Canal's Cocoli Locks water-saving basins. These basins allow the canal to recycle 60% of the water used by the lock

ACP

My duty, my call

The Panama Canal Authority's executive vice-president for Environment, Water and Energy, **Carlos Vargas**, tells *P&H* why the project is a leader in environmental development

Since its establishment in 1997, the Panama Canal Authority (ACP) has been dedicated to the management and operations of the canal, as well as preserving the natural resources of the region. Similarly, since 1980, before the Panama Canal was managed by ACP, I have dedicated my life to the study of hydrology, holding multiple positions managing the canal's environmental initiatives.

The adoption of international standards and incorporation of these innovative environmental initiatives will play a key role in the development and preservation of the Canal Watershed, which is vitally important to the operation of the Panama Canal and the 1.9 million Panamanians who rely on it for drinking water, including myself.

With the expansion currently 97% complete,

ACP is on track to become a leader in not only global commerce, but also environmental development, ensuring the future viability of the waterway.

Currently, the 101-year-old waterway complies with international environmental standards, such as the Equator Principles (EPs), and all existing laws and regulations governing the business. Beyond the application of these standards, the ACP relies on an integrated monitoring system focused on reducing the environmental impact of maritime transit to a minimum.

To ensure the success of this system we will soon start offering compensation packages to all our customers who meet these carbon emission reductions and green standards.

These programmes and energy efficiency measures will enable reduced emissions of greenhouse gases per unit of cargo, therefore significantly reducing a ship's carbon footprint.

The Panama Canal offers a safe, reliable, and efficient Green Route for the maritime industry. The all-water route is a greener alternative, requiring fewer cargo movements compared with freight transportation via air, truck or rail. Transiting cargo through the Panama Canal has a positive impact on the reduction of global carbon emissions when compared with other options. Given the shorter travelling distance it offers our valued customers, the canal reduces fuel consumption and therefore emissions. The expanded canal will allow the transit of more teus per ship, while maintaining the same standard, therefore reducing carbon emissions even further by up to 160 million tonnes in the first 10 years of operation.

Beyond the Green Route, the expansion programme will provide immediate and long-term benefits to the region and its population. Among the most influential social projects put forward by ACP is the water resource management programme.

Focused on providing clean drinking water to the community, the water programme is able to aid in regulating public health by protecting



a national water resource. In Panama, 55% of the country's population and 160 different types of mammal native to the region surrounding the canal rely on the Panama Canal Watershed as their source of drinking water and survival. With new systems provided by the expansion, similar programmes will continue to contribute to the management of clean water and a healthy watershed.

For the Third Set of Locks Project, ACP has installed 18 water-saving basins. Each basin utilises state-of-the-art technology, which allows the canal to recycle 60% of the water used per lock. These eco-efficient, innovative structures are a game changer for the expanded canal, which will benefit both the international and local community. The water-saving basins are a great example of our continued commitment to reduce the canal's impact on the environment, while expanding to accommodate neo-Panamax vessels.

As the Panama Canal also relies on the watershed, the conservation and protection of this resource is of paramount importance for the canal to operate successfully for an additional 101 years and beyond.

The Constitution of Panama in Title XIV, Article 316, states that ACP has the responsibility for the management, maintenance, use and

conservation of water resources in the Panama Canal Watershed, encompassing the waters from the lakes system and their tributary streams, in co-ordination with state agencies designated by law. Our proactive efforts to promote and establish best practices to protect the watershed have increased operational efficiency, supporting global efforts to tackle climate change.

These sustainability initiatives reiterate ACP's commitment to being a global maritime

industry leader, while actively sustaining the environment of Panama.

Through international compliance, water resource management, reforestation and other environmental strategies, we ensure the continued conservation of the watershed, guaranteeing the viability of the waterway for my family and future generations to come, who deserve the same opportunities as we have today. There is no development if it is not done sustainably. This is our duty. This is my call. **PH**

“We will soon start offering compensation packages to all our customers who meet these carbon-emission reductions and green standards”

Carlos Vargas

*Executive vice-president for Environment,
Water and Energy, Panama Canal Authority*





Class society supports ESI compliance

Five years after its launch the Environmental Ship Index continues to grow in strength as more incentive providers come on board and more ships qualify for discounts, **Jem Newton** reports

WPCI, the World Ports Climate Initiative, has announced a new kind of incentive provider for its very successful Environmental Ship Index (ESI) scheme. Among the many port administrations participating, there is now a classification society, DNV GL.

To shipping companies whose vessels are ESI compliant, the class society is offering a discount on subscriptions to its fleet performance management software. "It's part of our DNA to support shipping companies to improve their environmental footprint, so in discussion with ESI we came up with the idea

that we could act as an incentive provider. We are therefore offering a 50% discount on the subscription to our ECO Insight Environmental Module," said Torsten Büssow, who heads the ECO Insight unit.

"ESI has had considerable success compared with other non-governmental standards and it has a lot of leverage. Customers using our fleet performance solutions basically deliver data to ESI automatically with a mouse click," he explained to *P&H*.

DNV GL says it now has more than 30 customers applying its vessel performance solutions on more than 700 vessels. ECO Insight is a data-driven IT

‘It’s part of our DNA to support shipping companies to improve their environmental footprint’

Torsten Büssow
ECO Insight head, DNV GL



solution that includes advisory services, engineering know-how and other benefits and has been on the market since January 2015.

“Environmental reporting is really a by-product of a proper performance management system and we want to incentivise owners to participate in the ESI scheme. We believe this is a win-win situation in that we want to make our product more attractive and link it to a good environmental scheme,” Büssow explained.

“Nobody should spend money on doing environmental reporting in addition to a proper fleet performance management. If you do it right and you know the environmental reporting requirements, you can tailor your data collection and structuring to those reporting requirements and thereby comply with it. If you don’t have an integrated system you’ll find environmental reporting creates a lot of extra time and paperwork.”

ECO Insight data can be used to comply with other voluntary environmental reporting schemes such as the Clean Cargo Working Group. It could also be a practical solution for owners who will be subject to monitoring, reporting and verification (MRV) requirements – the European Union-wide system for monitoring, reporting and verification of CO₂ emissions, based on the fuel consumption of ships – set to come into force in January 2018.

While it supports international environmental regulations, DNV GL says its primary focus is helping owners save money. “Only in 20% of the cases is the driver for fleet performance managements systems environmental reporting; in most cases it is how to save fuel costs and make vessels more competitive. Among the total expenditure that ensures a vessel stays afloat, reducing fuel costs is the biggest saving lever,” Büssow said.

ESI is one of the major pillars of the IAPH’s World Ports Climate Initiative, identifying seagoing ships that perform better in reducing air emissions than required by the current IMO emission standards by evaluating the amount of nitrogen oxides (NO_x) and sulphur oxides (SO_x) released by a ship and includes a reporting scheme on the greenhouse gas emission of the ship.

Reports are made to www.environmentalshipindex.org.

In a nutshell, ESI is a yardstick against which to measure the level of environment friendliness of oceangoing vessels and then to identify cleaner and greener ships in a general way. The ESI index is used by an increasing number of ports to reward ships when they participate in this voluntary scheme.

In January 2016, there were a total of 3,809 vessels with a positive ESI score, of which 2,599 have scores above 20. The ESI scheme now has 43 incentive providers including DNV-GL.

Among the new incentive providers, the port of Flåm and Gudvangen in Norway has introduced an innovative approach to its incentive: the ESI score expressed as a percentage will be the rebate available to ships on harbor dues.

Since the start of this year, the Norwegian Coastal Administration (Kystverket) has extended to ships with a valid ESI certificate and a total ESI score of 50 points or higher, a 100% rebate in the pilotage readiness fee.

The South Korean port of Ulsan has also joined the scheme, with a 10% rebate on port dues for ships with ESI scores above 31.

In December 2015, ESI celebrated the fifth anniversary of its launch and one of its founding ports offering incentives to cleaner ships has confirmed the growing success of the scheme.

Antwerp was among the group of ports that first introduced the ESI in 2010, along with Le Havre, Rotterdam, Amsterdam, and Hamburg. In 2012, two years after the scheme began, there were 462 calls in Antwerp by ships that qualified for the discount. Two years later that number had risen to 501, and by the end of the first nine months of 2015 the port had exceeded the previous year’s total, granting discounts to 671 calls by ESI-compliant ships.

The decision to grant discounts in Antwerp was one of the measures in the port’s action plan to combat particulate matter and NO_x and promote sustainable enterprise. A discount of 10% is accorded to all calls by ships with a score of 31 or more. **PH**

MORE INFO: wpci.iaphworldports.org



Port of Antwerp is one of the original pioneers of the Environmental Ship Index



DeltaPort

EcoPorts: where ecology and port management come together

Founded nearly 20 years ago, EcoPorts provides a space where port environmental managers can work together and ports can win recognition for their environmental management. **Andrew Spurrier** reports

The work of the EcoPorts network is discreet but, apparently, effective. The stream of European ports seeking to join and take advantage of its space for collaboration and its services is steady.

EcoPorts exists to help ports improve their environmental credentials through contact and co-operation with fellow ports. Its history goes back to 1997 when the concept emerged from the European Commission's Eco-Information project, in which the European Sea Ports Organisation (ESPO) participated, notably by providing links with port sector professionals.

Eight major port bodies were involved originally: Amsterdam, Antwerp, Barcelona, Genoa, Gothenburg, Hamburg, Rotterdam, and the British Ports Association.

At that time, the structure had foundation status and its secretariat was hosted by the port of Amsterdam. It developed gradually over the years but largely took on its present form as a result of the EcoPorts Project, which

ran from 2002 to 2005. During this period the two tools that form the backbone of its work today were created.

The austere named Self Diagnosis Method (SDM) enables ports to measure their environmental management performance against existing European standards. If it is completed satisfactorily, it qualifies them for EcoPorts status.

SDM takes the form of a checklist that participating ports must complete every two years. It has been designed first to assist port managers to set up a credible environmental management system and then to measure their subsequent environmental management performance against existing European Union (EU) port sector benchmarks.

SDM can be supplemented by an optional analytical review, carried out by an independent EcoPorts reviewer. This includes gap analysis, enabling ports to compare their performance against recognised environmental



DeltaPort in Germany became the first inland port to be awarded PERS certification in January

management standards and SWOT (strengths, weaknesses, opportunities and threats) analysis.

Completion of the basic SDM process gives access to the second EcoPorts tool: the Port Environmental Review System (PERS), said to be the only port-specific environmental management standard currently available. It incorporates the main requirements of recognised environmental management standards such as ISO 14001 but adds port-specific requirements developed over the years by EcoPorts member ports.

After the ports complete the PERS documentation it is passed on to Lloyd's Register Quality Assurance for independent audit. If their applications are validated, after a procedure lasting some four weeks, the ports receive a certificate of verification and a feedback report. All ports, successful or not, receive a summary report giving the main findings on their conformity with the PERS standard.

Lloyd's Register was the natural choice to take on this role of certification since it had been involved in the EcoPorts Project from the start and played a key role in creating PERS.

About 100 ports, large and small, currently belong to the network, which, after being a standalone structure, became part of ESPO in 2011. Of these, 27 have PERS certification and more than 50 have ISO certification.

According to Dr Antonis Michail, who is EcoPorts co-ordinator at ESPO, the organisation decided to take over running EcoPorts as a means of making its benefits freely available to all ESPO members. Before 2011, members had to contribute to the scheme on the basis of their tonnage throughput.

Membership of EcoPorts has tripled since 2011 and Michail is not disappointed that by no means all ESPO members yet belong to the network. "ESPO is delighted by the increased interest in EcoPorts," he said. "One hundred ports is a good representative sample of European ports."

Membership of EcoPorts also goes beyond ESPO's own membership. In January, Germany's DeltaPort became the first inland port to be awarded PERS certification, an example Michail said he hoped others would follow. There are also members from EU "neighbouring countries" such as Jordan, Morocco, Turkey, and Ukraine.

But EcoPorts is also in a sense global, according to Michail, by virtue of its close association with the ECO SLC Sustainable Logistics Chain Foundation, which was set up in 2010 by chairman Herman Journée, formerly strategic development director at the port of Amsterdam, and other EcoPorts stalwarts.

The organisation, which operates under a memorandum of understanding with ESPO and the American Association of Port Authorities (AAPA), aims to promote EcoPorts, its tools and certification to ports outside Europe. It already includes ports from Colombia, Mexico, and Taiwan.

"ESPO operates and disseminates EcoPorts inside the European Union and EU-neighbouring countries," said Michail. "For ports in other geographical areas, we have an agreement with ECO SLC."

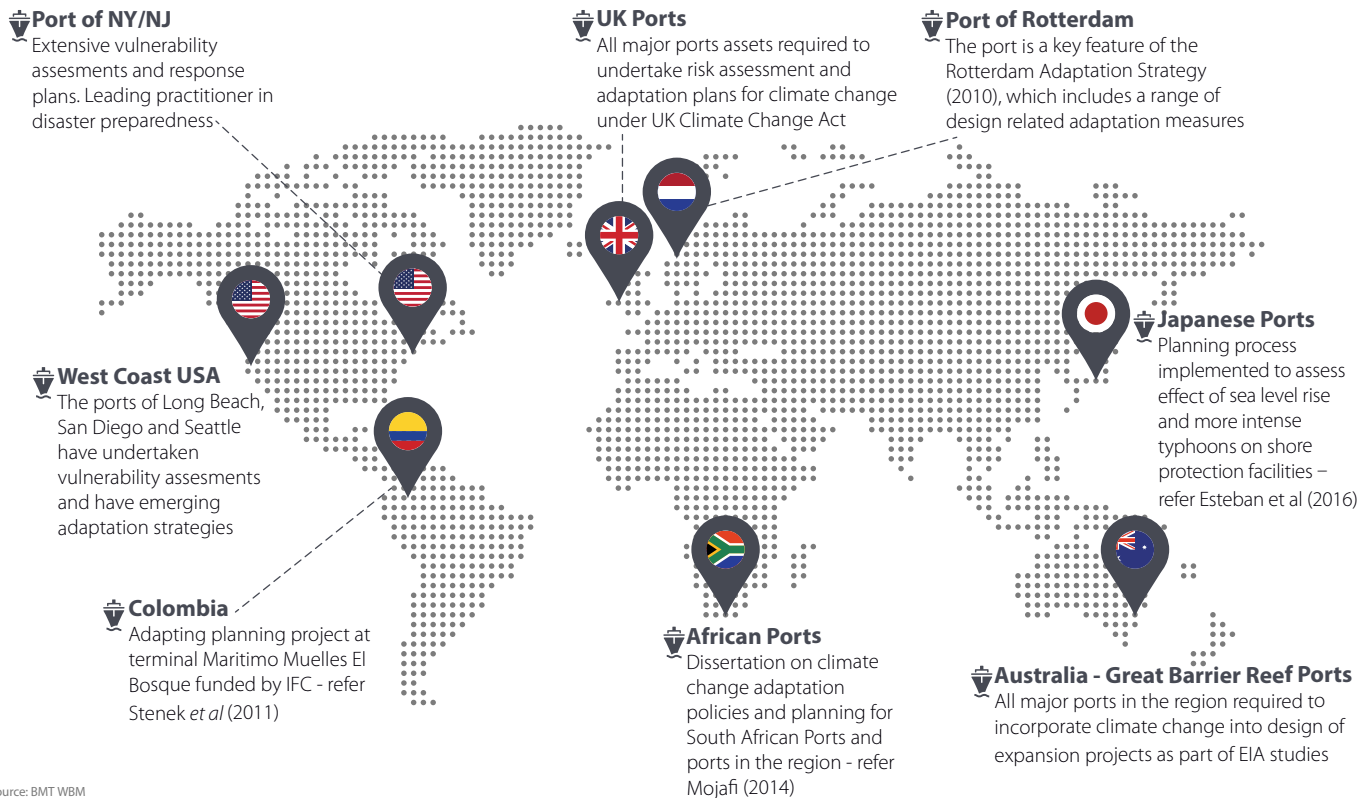
There is no size bar to membership of EcoPorts. It is sufficient for ports to want to improve their existing levels of environmental management and to be ready to share data and experiences.

One-third of member ports handle less than 5 million tonnes of cargo annually. "The requirement is the data provision," said Michail. "If you want to appear on the EcoPorts system and have the EcoPorts status, you need to have a valid SDM. You need to provide this regularly updated data on your port environment management to start with."

Being part of EcoPorts is in itself a form of recognition of a port's wish to improve its environmental management standards and performance. Ports can go further by seeking PERS certification, which has its place alongside other forms of port environmental certifications such as ISO 14001 and EMAS, the EU Eco-Management and Audit Scheme.

Being port-specific gives PERS further added value. EcoPorts' greatest value lies elsewhere, however, in its ability to offer ports a structure that enables them to share experience and work together to maintain and improve their environmental management.

As Antonis Michail puts it, "The biggest value of the whole initiative from the beginning has been the network itself. It's the fact that, in the end, you develop a network of port environmental managers that shares knowledge and experiences and that is the main value for the ports apart from the tools themselves." **PH**



The long-term game

BMT WBM is developing a number of key concepts and tools as part of a set of guidelines for ports to build resilience to climate change. The organisation's market lead for environment, **Greg Fisk**, offers some practical advice gleaned from this research

Climate change is happening and we now recognise that even if current carbon emission targets were achieved, rises in sea level and more extreme storm events would not be avoided. It is, therefore, imperative that government, businesses, and communities examine adaptation options and pathways for the future.

For infrastructure owners and operators, such as port authorities, climate change may affect corporate investment portfolios and expansion plans, standards for new infrastructure, maintenance of existing assets, the resilience of supply and distribution chains and corporate liability, insurance premiums, and reputation. There are also external factors at play, including emerging government regulation, community concern about preparedness, and potential litigation where future climate change impacts are being ignored, or not being appropriately considered in planning and decision-making.

Seaports are both exposed and sensitive to climate risks. They have limited adaptive capacity because of the numerous roles they play in the economy, the necessity of uninterrupted operation to support imports and exports, their permanent location in coastal, estuarine or riverine areas, and long lifespan. However, it is imperative for ports to consider measures that will increase their resiliency in the short to medium term and have a clear pathway for adaptation in the long term.

The past 10 years have seen substantial investment by transport infrastructure owners, including ports, worldwide to understand their vulnerability and risk. While there are a range of broadly focused risk and adaptation planning guidelines, few ports have actually adopted formal adaptation strategies or action plans.

This is caused by a number of key barriers to adaptation that are endemic to climate change



Port & Urban Projects Bureau, City of Kobe, Japan

The port city of Kobe. Many island nations, such as Japan, are implementing projects to mitigate the risks of sea level rise

planning across both public and private sector jurisdictions. Examples of these barriers include the need for better evidence and confidence in the impact of climate change before adaptation actions are taken. Without greater certainty, it will be difficult to make a commercial argument for investing in climate change adaptation.

Adaptation means making long-term decisions that are sometimes incompatible with the investment timeframes on business.

Normal business risks are often regarded as being more urgent than those posed by climate change. Therefore, there is limited pressure to invest resources in adaptation at the current time.

There is a range of internal organisational barriers, including a lack of awareness by senior executives, who may often confuse carbon management – managing greenhouse gas emissions – with climate change adaptation or a lack of authority, corporate priority and resources for effective action across the organisation.

Ports should also understand that the preparation of a climate change adaptation plan or strategy cannot

solve the climate risk problem that will continue to emerge over the next 50 years and beyond. Instead, adaptation is a long-term game that needs to be embedded within the fabric and culture of the organisation in order to be effective.

Resilience and adaptation are relatively new fields of practice, compared with carbon emission mitigation, and are areas many global ports are only just putting their minds to. While there is emerging literature on the subject by academic researchers, guidelines for practitioners are limited.

What guidance is available is often packaged as part of broader environmental sustainability initiatives that fail to recognise the critical, triple bottom-line nature of the issue for ports and harbor authorities, if predicted climate impacts happen.

The aim of the guidelines being developed by BMT, which will be available mid-2016, will be to synthesise existing approaches to climate change into a format and guidance document specifically designed for the end users: port and harbor planners and operators.

Direct port assets and functions that are vulnerable to climate and extreme weather risk include:

- Built infrastructure
- Goods handling and storage
- Navigation, dredging and berthing (for example, maritime operations)
- Insurance and financial functions
- Environmental performance
- Social (and workforce) performance.

Ports can also be affected indirectly. Disruption to land-side supply chains such as transport, energy, and water infrastructure can affect operations and prevent the port from importing and exporting goods. Alternatively, on the marine side, climate change may influence global demand and trade patterns, as well as more global patterns of usage by commercial ships. This may result in potential access improvement for ice bound ports

Adaptation planning cycle



Source: BMT WBM
Illustrations: Shutterstock

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but greater access restriction and downtime for tropical ports, as a result of extreme temperatures and more frequent intense weather events.

While vulnerability assessments are a critical part of adaptation, they are only one component of broader adaptation planning. BMT has developed a six-point adaption planning cycle (see 'Adaptation Planning Cycle for Resilient Ports', p15) that plots the journey towards creating a resilient port via awareness, understanding, objectives, options, strategy, and monitoring/evaluation.

Many ports are now aware (step 1) of future climate change impact on port operations and have some understanding of how these changes may affect their assets and operations (step 2). Few ports have moved to the next steps along the adaptation planning cycle.

Step 3 is critical to the success of any planning exercise as it sets out the objectives to be achieved by the process. These 'success criteria' will drive all further steps in the planning process and will include assisting the port to assess and decide on the most appropriate options (step 4), as well as to prepare and implement an effective strategy (steps 4 and 5).

Step 6 will see a monitoring process put in place to measure how successful any strategy put in place is at addressing sea level rise and other climate risks.

When addressing the identified risks in vulnerability studies and assessments, a number of options to mitigate these risks will present themselves. Adaptation for port infrastructure will need to be split between existing and new (proposed) assets – with different adaptation tools available to manage current and future risks.

For existing assets, the fundamental options available include protection (generally in the form of hard structures), accommodation (such as retrofit or other engineering modification), or to retreat. Given a port's coastal dependence to function and its inability to be relocated, conventional retreat will not be realistic but

may instead take the form of sacrificing and replacing an asset at the end of its design life.

When planning for new assets, adaptation options will depend, in part, on whether the subject land is a greenfield development or in-fill development. Avoiding future climate impacts may be a realistic objective for greenfield sites through setbacks, filling, or conservative engineering design. But this option will become impractical for in-fill development, where either an accommodation or acceptance strategy is more appropriate (see below).

Global action by ports on adaptation planning has been steadily growing. Further interview-based research with port authorities is now required, noting the need to assess both the level of activity and resources being expended on adaptation planning and the effectiveness of existing initiatives. It is also important to determine whether or not the initial plans developed are actually being implemented.

As these global practices and efforts indicate, the issue of climate change adaptation for ports is gaining momentum but has not yet been mainstreamed outside the large global ports. Further action is particularly needed in less developed nations that may have even greater exposure to climate risk.

The key to effective adaptation will be to build resilience of assets and operations in the short to medium term but also a willingness to implement additional controls and measures as the frequency or severity of impacts become clearer. **PH**

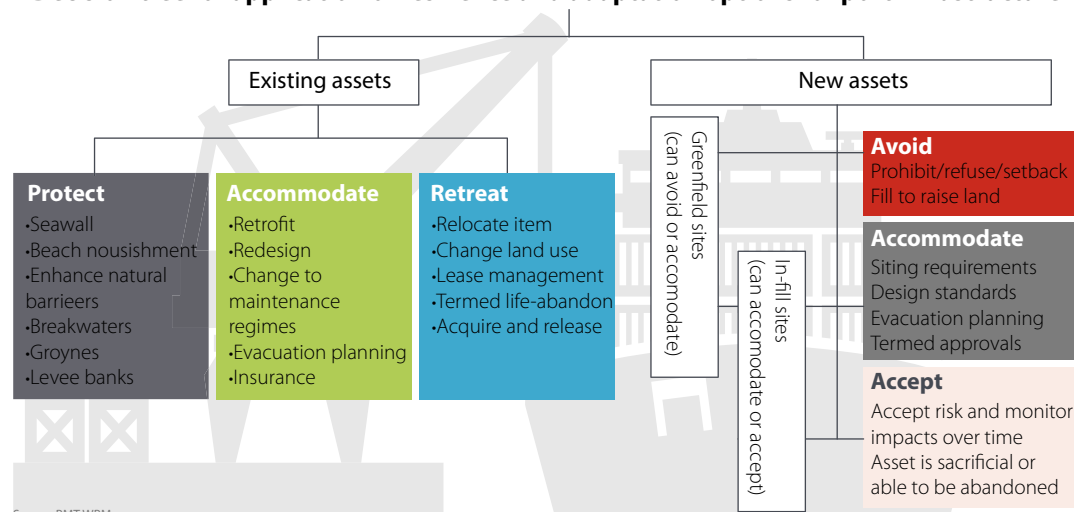
 greg.fisk@bmtwbm.com.au

 **MORE INFO:** *Climate Change and Adaptation Planning for Ports*, Ng et al eds. (2016).

BMT WBM, part of the BMT Group, is a consultancy specialising in the application of technology in engineering and environment management.

 Website: www.bmtwbm.com.au

Decision tree for application of resilience and adaptation options for port infrastructure



Source: BMT WBM
Illustrations: Shutterstock

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Port of Duluth

Cargo handing bulks up

Great Lakes ports turn to project cargo to balance out decline in steel, oil, gas, and grain shipments, reports **Joseph Bonney**

Over the years, the Great Lakes ports on the US-Canada border have developed several breakbulk/project niches, including steel imports, heavy-lift cargo such as turbines and other industrial equipment, and blades and rotors for energy-generating windmills in the US Midwest and Canada.

It is a seasonal trade with an eclectic cargo mix, an assortment of ports, long inland water routes that place unique operating demands on carriers, and a mid-continent geography inviting competition from other

coasts. These cargo are becoming more important amid forecasts of continued weakness in bulk cargo, such as iron ore and grain, on the Great Lakes and St Lawrence Seaway, which opened to oceangoing ships on 22 March.

Steel imports at US and Canadian ports on the Great Lakes declined in 2015 after a strong 2014, which left buyers with excess inventories and domestic producers clamouring for anti-dumping actions.

Shipments related to oil and gas development are being slowed by the drop in petroleum prices, but the decline is being offset in some ports by shipments of wind energy blades and rotors.

Bulk grain volume, which declined 10% last year, has an effect on Great Lakes breakbulk activity.

Michel Tosini, executive vice-president of Federal Marine Terminals (FMT), said customers expected Great Lakes' breakbulk and general cargo volume for 2016 to be at or slightly below 2015 levels, and that steel tonnage was likely to be down by about 5%.

Many of the projects FMT is bidding on for its Great Lakes terminals at Burns Harbor, Indiana; Cleveland; and Milwaukee could also move via other coasts, he

“Last year we had wind-power equipment from South Korea, Indonesia, Spain, and Germany on our docks all at the same time”

Vanta Coda

Executive director, Port of Duluth-Superior

said, adding that with steel volume expected to be down in 2016, ports and terminal operators faced stiff competition and pressure on rates.

Traffic on the Great Lakes and St Lawrence Seaway system had been dominated in recent years by bulk shipments. Great Lakes total volume dropped 10% in 2015, mainly because of reduced shipments of iron ore for steelmaking.

Ports are looking to project cargo to pick up the slack. Netherlands-based Spliethoff began a trans-Atlantic container/breakbulk liner service to the Great Lakes in 2014, encouraged by a Port of Cleveland subsidy that is scheduled to be phased out after 2017. Spliethoff has planned four sailings a month for 2016. It has scheduled direct calls at Montreal and Cleveland, and calls at other Great Lakes ports on inducement, primarily for heavy-lift and other project shipments. During the winter, Spliethoff serves the region via Baltimore, with a connecting rail service to Cleveland.

In addition to trans-Atlantic shipments, there is an active trade in breakbulk and project shipments within the Great Lakes. Toronto-based McKeil Marine handled about a dozen project shipments in 2015, including some overseas shipments that were transloaded on to the company's barges. McKeil Marine has a fleet of barges up to 132 m long and 33 m wide.

Paulo Pessoa, McKeil Marine's vice-president for business projects development, said project cargo shipments had been fairly steady in recent years and many Great Lakes project shipments from overseas were now handled by ships calling directly at Great Lakes ports. Pessoa said the Great Lakes provided an efficient route for heavy and oversize cargo. The surrounding region has concentrations of industry requiring movement of oversize pieces. There is a variety of ports with good infrastructure, and the Great Lakes' minimal water fluctuations simplify roll-on, roll-off operations.

"The Great Lakes is a good place to operate," he said. Several Great Lakes ports have been improving

infrastructure: Cleveland has invested in shore cranes and Toledo in Ohio has added two mobile cranes, each with 76.2-tonne capacity, that can be used in tandem to handle heavier loads.

Toledo, a London Metals Exchange delivery point, handled nearly 118,000 tonnes of aluminium in 2015. The port also had several sizeable project cargo shipments in 2015, including shipments for a Husky Oil refinery and oil and gas fracking operations in Ohio.

Joe Cappel, the port's vice-president for business development, said Toledo had ample open storage space and corridors for land delivery of oversize project cargo. "We see this as one of our strengths."

Great Lakes ports benefited from the surge in North American oil and gas production following the introduction of hydraulic fracturing technology. That business has tapered off as the oil price collapse has forced companies to cancel or delay projects.

Vanta Coda, executive director of the Port of Duluth-Superior in Minnesota, said that while the oil and gas business was in the trend of a cyclical downswing, prospects were improving for shipments related to wind-power generation.

Duluth's location at the western tip of Lake Superior makes it the closest port to wind energy farms in the upper Midwest and south central Canada. More than half of wind turbine shipments on the Great Lakes/St Lawrence Seaway system move through Duluth.

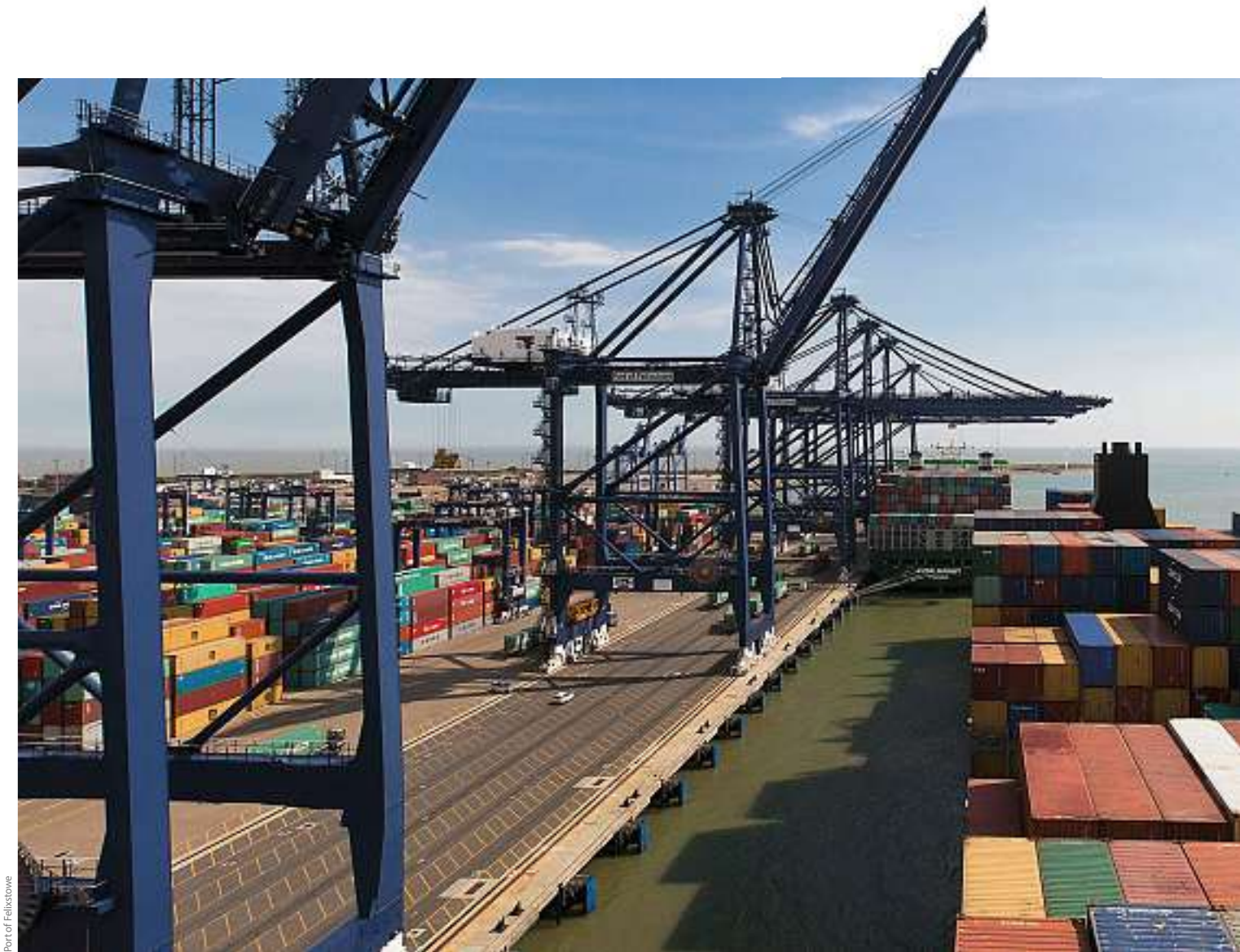
"Last year we had wind-power equipment from South Korea, Indonesia, Spain, and Germany on our docks all at the same time," Coda said.

Prospects for wind-energy projects brightened in December 2015 when the US Congress approved a five-year extension in investment tax credits for renewable energy. Coda said he expected the tax credit to spur additional wind projects in 2016.

This summer Duluth expects to complete the nearly USD18 million redevelopment of a 11.3 ha pier that will triple the port's outdoor storage capacity and provide a berth with heavy-lift capacity of 9764 kg/m². **PH**

Breakbulk handling at Duluth port





Port of Felixstowe

UK ports take on weight

Many UK ports are putting their clients' interests first when it comes to the VGM rule due to take effect on 1 July

Ports in the UK are taking the lead to accommodate a SOLAS amendment coming into effect on 1 July this year, requiring all export containers carrying cargo to have their weight verified before being loaded on to a ship. They see it as their responsibility to keep containers moving through their gates and on to ships and over the past few months have been busy preparing plans to make this happen.

Felixstowe, London Container Terminal, and DP World's ports in the UK have all announced that they will be offering weighing solutions to obtain the verified gross mass (VGM) on behalf of the shipper if a

container arrives without this information.

Felixstowe, which accounts for over 40% of the UK's containerised trade, has taken a leading role in the recent consultation exercise organised by the Maritime and Coastguard Agency on implementing the SOLAS amendment in the UK.

"We will be using a system on container spreaders, but I can't comment on the system supplier yet," a port spokesman told *P&H*.

"Technical trials have taken place. Though the precise timing of the introduction of the service is still to be announced, it will be in good time to allow shippers to



Technology in Port of Felixstowe's spreaders will be able to measure containers' VGM at the point of loading on to vessels

meet the rules: ie by 1 July. The system's objective will be to establish the correct weight so there is no issue of 'incorrect' weights. The gross mass weighed will be the weight entered on relevant systems. Announcements on cost will follow in due course."

Speaking to *P&H* when the SOLAS amendment was originally announced, Bromma marketing vice-president Lars Meurling noted, "Even though the responsibility for verifying the weight is with the shippers, it provides an interesting business opportunity for container terminals to offer weighing services to shippers."

DP World announced in a statement as *P&H* went to press that as of 1 July it will be providing its UK exporters with a fully integrated system to obtain containers' VGM if required to do so. At its London Gateway terminal, load cells installed on the automated stacking cranes will determine the VGM. At Southampton, load cells will be installed on its straddle carriers. Its website reveals that shippers will be charged GBP17.50 (USD25.00) for this service. However, a GBP1.00 (USD1.50) fee to receive a VGM before the box reaches the port and GBP3 (USD4.30)

fee if the VGM arrives after the box arrives but before the 24-hour cut-off period, will be applied, according to DP World's new website on the topic: containerweighing.dpworld.co.uk.

Jamie Frater, senior asset manager at London Container Terminal (LCT), told a group of delegates at a Chartered Institute of Logistics and Transport event in February, hosted by TT Club, that LCT was not offering weighing to make money, but to ensure it could receive containers on behalf of the client.

LCT will assume the declared VGM is correct but has developed a process for containers that arrive without one, he said. If the container arrives with an estimated VGM, the exact VGM will be sought from the shipper before loading. If it is not available, then the VGM will be obtained at the shipper's cost. If the shipper does not wish to have the container weighed, it will be stored at the shipper's cost.

The terminal will be using weigh bridges to obtain the VGM and also has load cells on a limited number of its straddle carriers.

Containers that arrive without a VGM will be sent to a different stack, said Frater. They can then be weighed, if this can be agreed with the shipper. If the VGM is sent electronically after the container arrives, Frater said for deepsea vessels it ideally needs to be with LCT 12 hours before the vessel arrives and for shortsea vessels four hours before. He noted, however, that the VGM could be received up until the ship's arrival.

Weighbridges are a proven technology to obtain a VGM although, as the industry knows, they are not the most straightforward, as the weight of the chassis, fuel, driver, and so on must be subtracted to obtain an accurate figure. They also add another waypoint in a container's journey through a terminal.

Meurling said, "Bromma's weight-verification system, with load sensors mounted on the spreader twist locks, offers a solution that can weigh containers without affecting cycle times and influencing logistic flows – and the interest for this technology is steadily increasing."

Load measurement product manufacturer Strainstall believes the new SOLAS regulations will result in all new container-handling equipment being "designed from the outset to incorporate container VGM technology". For existing infrastructure, meanwhile, "SOLAS compliance will need to be achieved via the installation of retrofit solutions on to existing assets."

Felixstowe chief operating officer Stephen Abraham said, "We have met with many customers, and from their feedback it is clear that there is still a lot of uncertainty among exporters about the new rules."

"Those rules have the potential to cause significant disruption to export supply chains, and it's to help avoid this that we decided to provide a service where export containers can be weighed at the port before being loaded." **PH**



From brown to blue

The last urban wasteland along the River Scheldt, the heavily polluted Petroleum Zuid site, is to be converted into a carbon-neutral business park for eco-innovation companies, writes **Tony Slinn**

Renamed Blue Gate Antwerp, the 63 ha brownfield site is at the southern edge of Antwerp, Belgium, between the new Antwerp Court and the Hobokense Polder.

Awarded by City of Antwerp, Participatie Maatschappij Vlaanderen, and Waterwegen en Zeekanaal via a public-private partnership (PPP), the contract to remediate, redevelop, and commercialise the site has gone to the Blue O'pen consortium, consisting of Belgian dredging, environmental and marine engineering group DEME subsidiaries DEME Environmental Contractors (DEC) and Dredging International, along with real estate and sustainability consultancy company, Bopro.

Petroleum Zuid was the world's first petroleum harbor and was once a promising industrial site. However, after a catastrophic fire in 1904, it declined, remained polluted, and has completely degenerated.

The DEME-Bopro consortium was awarded the remediation contract following a 'competitive dialogue' selection procedure that took no less than three years. Interested parties engaged in a gradual dialogue with the authorities, with the future plan adapted as the process progressed.

P&H spoke to DEME project finance executive Johan Maes and business development project manager

Jérôme Mets to find out why such a selection procedure had been adopted.

"For such a complex dossier, the competitive dialogue is a good option," Maes said. "The authorities ask the market, 'What can we do with this polluted site? How should we decontaminate it, make the site ready for development, and market it?'"

"This is impossible to do with a traditional contract document. Candidates are challenged to come up with creative, innovative, and efficient proposals. As a multidisciplinary player, this is one of DEME's biggest strengths," he explained.

Metz noted, "The city council has great ambitions in the fields of sustainability and energy. By examining it within the market, we were able to fine-tune and reorient those ambitions. Because of Deurne Airport's close proximity, for example, it is impossible to install wind turbines, but we looked beyond the site itself and have concluded an exclusive study contract with [materials technology and recycling company] Umicore and [waste recycling and renewable energy specialist] Isvag for the supply of residual heat."

Initial work at Blue Gate Antwerp consists mainly of soil investigations, which DEC hopes to complete during 2016. The consortium then has to apply for the necessary licences, and expects the major work to get under way at the beginning of 2017. "The site is polluted with mineral oil, heavy metals, and polycyclic aromatic hydrocarbons [PAHs] – and in addition it's waterlogged," Metz commented, reviewing the challenges.

"The decontamination is to be carried out based on an approach discussed with public waste agency OVAM, in which the contamination risk is completely eliminated. Due to the waterlogged situation, and for the purpose of spatial and topographical optimisation, the site will be raised and drained by Dredging International, which will also begin infrastructure

works for the new corporate zone.

"The elevation is part of the decontamination approach – it forms a covering layer, eliminating the risk of recontamination by PAHs and heavy metals," Metz added. "For the oil pollution decontamination, an excavation is planned with cleansing of the polluted soil by a physiochemical technique of soil washing or biological cleansing."

Maes acknowledged that the project will be costly and backing by the authorities is vital. He pointed out, "Total costs for decontamination, raising of the site, and infrastructure are estimated at EUR58 million [USD63 million]."

"The financial support of the Flemish government, covering almost half of the costs, is essential. Dynamic marketing should ensure a revenue of EUR47 million (USD53 million), covering both the other expenses and the pre-financing and operation of Blue Gate Antwerp during 20 years," he added.

"While it was initially thought it would be a case of loss financing," he said, "Blue Gate Antwerp has managed to offer a market-compliant return thanks to technical and financial optimisation ... and outsmarting the competition!"

It is also a long-term project, running through 2030, Metz noted. "We now need about a year to put such things as the detailed design, the permits, and the subsidy application in order. As said, we expect the major work to begin early in 2017 and it will be executed in three main phases, each time at a specific onsite location."

"In parallel with the remediation and infrastructure works, consortium partner Bopro will start the sustainability direction and marketing of Blue Gate Antwerp. The logistical zone has already been filled completely by three companies: Van Moer Stevedoring, Montea, and CityDepot," he said.

Maes added, "Progress of the next two phases depends on the market. Investments will be made more quickly if we manage to attract large investors, but there is a strict selection procedure: candidates are

“While it was initially thought it would be a case of loss financing, we have managed to offer a market-compliant return”

Johan Maes

DEME project finance executive

screened for their eco-efficiency, waste management, and the extent to which they seek symbiosis with other onsite companies."

Bopro CEO Peter Garré commented, "Blue Gate Antwerp fits into our vision of sustainable entrepreneurship in the construction and property sector. We are looking for companies that see the ambitions of energy efficiency, mobility, and the cradle-to-cradle approach as a supplement to the realisation of their own business strategy – and as something that can lead to growth and carbon dioxide [CO₂]-neutral economic activity."

Maes noted, "Throughout the entire site there will be a green corridor, which was developed in partnership with the University of Antwerp and [Flanders environment organisation] Natuurpunt. This corridor, with its bicycle path, connects the green zone along the Antwerp ring road with the Hobokense Polder nature reserve."

"During the decontamination, we are also focused on a sustainable relationship with the environment," he said. "A communication strategy is designed and all the elements that could potentially cause hindrance are tackled preventively, such as dust control and separating site and local traffic."

Maes continued, "Antwerp has always been a key client for DEME. DEC realised the reconstruction of Spoor Noord and also developed the PPP Amoras, which is responsible for processing the Port of Antwerp's dredged material. Dredging International is the port's house contractor, with maintenance contracts for dredging the Scheldt and the construction of many different harbour docks."

DEME CEO, Alain Bernard concluded, "Blue Gate Antwerp fits into our strategy whereby, together with our partners, we search for a balanced relationship when approaching complex projects."

"For DEME, this is a key reference project in the home market, confirms that our company is a reliable and experienced party, and highlights our broad-ranging capabilities to clients worldwide." **PH**

MORE INFO: www.bluegateantwerp.eu

Blue Gate Antwerp as it is now

Site map





Clean-up sparks port area revival

The Port of Bellingham in Washington State is clearing historic contamination and giving new commercial life to its waterfront. **Tony Slinn** reports

Port of Bellingham

Tacoma-based American Construction Co is currently dredging the Port of Bellingham's Whatcom Waterway in phase one of a campaign that will not only remove historic contamination, but will also give the waterway and Shipping Terminal more depth when completed in June this year.

"Whatcom Waterway was contaminated by heavy industrial activities at Georgia-Pacific's former pulp and paper plant, dating to the 1960s," Bellingham's planning and development director Sylvia Goodwin explained to *P&H*.

Washington State Department of Ecology (WSDE) notes that Georgia-Pacific used mercury in its chlor-alkali plant to produce chlorine and sodium hydroxide for bleaching and pulping wood fibre. Wastewater was discharged directly into Bellingham Bay from 1965 to 1971. Key contaminants now include mercury and phenolic compounds in concentrations that exceed standards established under the Model Toxics Control Act, the state's clean-up law.

In 2005 the Port of Bellingham acquired 55 ha of waterfront property from Georgia-Pacific, including

land within the Whatcom Waterway site, and accepted responsibility for cleaning it up, with WSDE oversight.

Whatcom Waterway covers more than 81 ha in Bellingham Bay and is the largest of 12 clean-up sites in the 'Bellingham Bay Demonstration Pilot' project: a co-ordinated bay-wide effort by federal, tribal, state, and local governments to clean up contamination, control pollution sources, and restore habitat, with consideration for land and water uses.

It is being paid for by a combination of state grants and the port's pre-paid environmental insurance policy.

"It will transform the shorelines and set the stage for the port's and city's efforts to redevelop the downtown waterfront," Goodwin explained.

"The clean-up project will result in an increased navigation depth of 40 ft [12.2 m] mean lower low water (MLLW) in the channel, and 35 ft [10.7 m] MLLW in the berthing area at the shipping terminal. On the north side, new bulkheads, pilings, and docks will support ongoing marine trade activities, including a barge terminal and boatyard.

"We have USD7.1 million in our 2016 budget to upgrade the barge loading area, including updating electrical services and significant stormwater and paving upgrades," Goodwin added.

"The port is also building a state-of-the-art manufacturing warehouse for All American Marine, and planning for future projects in the Blaine Industrial area. We see the port's commercial future in clean, light-industrial uses, including research and development, assembly, and cargo or warehousing uses that are compatible with the adjacent mixed-use urban development."

When the clean-up was confirmed last year, Bellingham's mayor, Kelli Linville, commented, "It's

Bellingham at a glance

The terminal is only 76 nm from Vancouver, British Columbia, 84 nm from Seattle, and 675 nm from Ketchikan, Alaska. It is 4,244 nm from Tokyo, 4,614 from Pusan, and 5,053 from Shanghai.

Marine services include a flexible ILWU labour force, a nearby shipyard and drydock, various marine trades, and tug services. It is a secured Maritime Transportation Security Act-regulated site, and has a heavy-lift dock section.

Storage includes a 4 ha laydown area and two warehouses, both of more than 12,192 m² and both with office space.

There are also three lease areas of 8 ha, 6 ha, and 0.4 ha.

Overview of lease sites at the shipping terminal

essential to the redevelopment of the downtown waterfront, where the city can begin building parks and roads to access it. On the south side of Whatcom Waterway, new beaches will support public access and salmon recovery.” WSDE estimates the clean-up will generate USD490 million in business revenue, USD90 million in local tax revenue, and create between 500 and 2,000 construction jobs and long-term employment opportunities.

“American Construction Co’s scope of work will see 159,000 cubic yards [122,000 m³] of contaminated marine sediment removed,” Goodwin continued, “as well as 263 tons [239 tonnes] of creosote-treated timber. In addition, concrete and asphalt rubble and other debris from 46,950 ft² [4,362 m²] of shoreline and intertidal areas will be cleared and 4,300 ft² [399.5 m²] of shoreline and intertidal area opened by the removal of unused structures. Finally, 126,600 cubic yards [96,793 m³] of clean material will be placed and habitat-friendly shorelines created,” she noted.

Phase two of the clean-up, concentrating on the outer Whatcom Waterway, is expected to begin in 2018 and continue to 2022. This phase will see depths in the channel and at the shipping terminal further increased.

“Due to inadequate navigation depth at the shipping terminal, limited loading weights, and lack of uplands for laydown and other work areas, it has struggled to be competitive,” Goodwin said.

“But the deck pressure capacities are being researched and the increased depths, and an additional 20 acres [8 ha] of adjacent upland work areas – along with increased sales and marketing efforts – should bring jobs and better utilisation of this asset.”

It’s already resulted in a six-month ‘exclusive negotiating agreement’ signed with Bio-Fibre Manufactures (BFM) and log exporter DKoram to study the feasibility of exporting bio-fuel material and logs from those additional 8 ha. The port is still allowed to



negotiate with non-forest product companies.

“We believe there is significant market demand for exporting logs and bio-fuels,” said DKoram general manager Steve Grandorff. “Bellingham Shipping Terminal is strategically located between the major cities of Seattle and Vancouver, British Columbia, and there are a number of large and small suppliers of forest products in the surrounding area.”

BFM CEO Dylan Sebel added, “We will be offering tree farmers and local contractors an opportunity to sell any and all wood products to this facility. We will focus on the production of biofuels and chips/pellets for domestic and overseas markets, and we are excited to bring our business to the beautiful town of Bellingham and look forward to bringing employment to the area.”

Bellingham maritime director Dan Stahl concluded, “The port is committed to modernising the shipping terminal to meet the needs of today’s breakbulk cargo operators. With 1,250 ft [381 m] of dock space, a 550 ft [168 m] barge pier, 40 acres [16 ha] of property and increased navigation depths, the shipping terminal is ready to go to work.” **PH**

Last of its kind

Horizon Fairbanks is moored by Bellingham’s barge terminal and moved along a berth in February.

Horizon Lines leases the space from Bellingham, where 1973-built *Horizon Fairbanks*, which used to ship containers to Alaska, has lived since 2007. Horizon has kept the vessel in reserve but idle because of its poor fuel economy.

The Type C6 container ship was developed during the transition years from breakbulk to containerisation, originally converted from Type C4 Mariner class bulkers and very successful. In total, 11 Type C4 ships were converted and 8 Type C6 were built new. Of them, three converted C4s remain, reconverted as crane ships for the National Defense Reserve Fleet, plus *Horizon Fairbanks*.

However port planning and development director Sylvia Goodwin told *P&H*, “*Horizon Fairbanks* is scheduled to be scrapped in the near future, although the exact schedule is not known.”



Port of Bellingham

Know your limits

Marcus John, managing director of TT Club (Australia) and member of the IAPH legal committee, highlights a new insurance resource for IAPH members and advises port authorities to seek guidance on their exposure to risk

profile, often involve intense media interest, and place ports operations systems and senior staff under close scrutiny.

One example, defended by TT Club, involved a ship which dragged its anchor across a submerged gas pipeline in strong winds and subsequently ruptured it. The repair cost to the damaged pipeline and the loss of profit claim from dependent users of the gas was in excess of USD100 million. The ship was entitled to limit its liability to claimants under the internationally applicable Convention for the Limitation of Liability for Marine Claims (LLMC) to just over USD40 million.

The ship's pilot, employed by an independent pilotage company and not the port authority, was entitled to limit his liability to a total of USD200 under the relevant statutory immunity legislation.

The port authority, because of these statutory caps and immunities, came into the firing line for the balance of the quantum for the claim, notwithstanding obvious poor ship handling and negligence by the ship's pilot. The port authority

In recent years, port authorities have been increasingly exposed to liability claims, whether resulting from specific operational failings or merely as a result of developing national and international liability regimes. Thus, whether publicly or privately owned, there is a clarion call for more thorough risk assessment for port authorities globally.


The new insurance chapter in the *IAPH Introduction to Maritime Law for Port Officials* seeks to demystify the role of insurers as part of effective risk management for port authorities. The value of the chapter is demonstrated by providing examples of incidents that evidence some of the risks faced by ports and the importance of ports considering carefully their insurance partners.

The most common features of insurance claims arising from port operations are that they are occasional, typically involve large sums (usually over USD5 million), and stimulate inventive legal argument. Furthermore, litigation can be high-

was drawn into the litigation.

The allegations against the port authority arose because of its involvement in harbor control and the VTS (vessel tracking service). Negligence was alleged because harbor control had communicated directly with the pilot over his mobile phone, in breach of the port authority's own protocols obliging parties to employ open VHF. Arguably, VHF would have, in this instance, ensured that the ship master was aware of discussions between harbor control and the pilot in relation to the ship's perilous position.

The anchorage had been nominated by the port for many years and was known to be adjacent to the gas pipeline, which had also been in situ for a long time. The proximity of the anchorage was not in breach of IMO guidelines on such matters, but over time the port had attracted ships of increasing tonnage. As a result, the port managers were criticised for not identifying heightened risk in using an anchorage in poor weather conditions within



such close proximity of the pipeline. Issues arising from the claim generated headlines in local papers and was subject to industry-wide publicity following a national government investigation and findings through the relevant competent authority.

Most ports are a significant focus for the local community, being major contributors to the economic wellbeing of the local region. People, including a port's customers, expect ports to be run well, both in terms of the 'conservancy' obligations as well as pure operations. As a result, local reputations were on the line in this difficult case, which involved close scrutiny of the port's senior management and its systems. Thus, it is not just about whether a claim is settled or not; this is a specialist area requiring expert risk management.

Inevitably, such a large quantum claim would have had an adverse impact on the port's balance sheet in the absence of insurance that responded to the exposure. Although the claim was settled out of court and did not go through a hearing, it generated significant legal defence costs and a liability exposure.

Ports often provide the pilotage service. Where this is the case, pilots are employees of the port and as such may generate vicarious liability for negligence, which is picked up by the port as their employer. Where appropriate insurance coverage is in place, the exposure and defence costs will be reimbursed by the port's liability insurer.

Marine pilots usually enjoy statutory immunity in most jurisdictions. A pilot brought on to the bridge, while still an employee of the port authority, becomes a servant of the ship. As such, the captain and ship take on the responsibility of the actions of the pilot while piloting, including negligence.

Damage caused by a ship because of pilot negligence, in whole or in part, falls on the ship's protection and indemnity (P&I) liability insurance in the first instance. However, shipowners and P&I clubs may seek indemnity for

liabilities they have become obliged to pay flowing from negligence of the pilot. The values involved encourage claimants to seek to unpick the statutory immunity of the pilot so that a full recovery can be made against the pilot's employer.

Another case in which TT Club was involved on behalf of a port authority featured a partly laden bulk carrier which struck a wharf and damaged a coal loader, resulting in a claim of USD20 million. A judge found the marine pilot, who was an employee of the port authority, to be negligent and 60% responsible for the incident. The shipowners claimed indemnity for the loss, which they themselves had been obliged to pay to the owners of the coal loader.

The ship argued that the pilot was not entitled to rely upon the statutory immunity legislation. Because of a clerical error, the pilot was not 'licensed' under the relevant legislation and the argument was made that an unlicensed pilot should not have the benefit of a statutory immunity. Adverse exposure to the port's balance sheet for this significant claim was managed via the port's liability insurance. The port's

defence costs, which were considerable, were also covered by its insurance.

As well as managing reputations, quality specialist insurance can help with risk management, including contract advice and risk workshops for operations staff. This works well with specialist marine brokers who will provide advice and place cover with the right insurer who understands port business and who will be there to pay the claim and manage the process effectively.

Thus, the new chapter is designed to explain how insurance can be put in position to ensure that when problems materialise, the consequences can be managed effectively and show how sensible insurance cover can dovetail with the entirety of a port's risk management profile for both asset and liability exposures. **PH**

i MORE INFO: www.iaphworldports.org
www.ttclub.com



Symbol of the city

Scott Berman considers several recent or current cruise terminal development projects in North America that offer something more

A passenger terminal has to make sense functionally, strategically, commercially and symbolically, and creating the architecture to do these things is an exacting process. A number of recent and imminent projects in North America are cases in point and show how such terminals are being envisioned and realised today.

Take San Francisco's James R Herman Cruise Terminal, an award-winning facility that opened in 2015, having been designed by Pfau Long Architecture, Bermello Ajameil & Partners, and KMD Architects. Turner Construction Company was the general contractor.

Architect Peter Pfau told *P&H* that the challenges included designing in enough functionality to enable gangways not only to serve ships of many configurations and door positions, but also to smoothly accommodate the complex movement and interplay of people, baggage, provisioning, and security. All told, the process was "pretty fascinating", Pfau said.

Another cruise terminal project, at

Montreal, is in the planning stages, and architects Danielle Dewar and Sonia Gagné of design firm Provencher Roy shared insights with *P&H*. The design envisions a striking terminal intended not only for efficient marine passenger transport but also, like the Herman terminal, as a catalyst for new life and activity along an urban waterfront. At Montreal, the idea is to completely revamp two old sheds into a state-of-the-art cruise terminal to serve a growing cruise industry there, integrate the facility with an attractive public green space with ferry and excursion docking on its end, and add a shoreside power system with four points of service. Construction may begin in 2017.

The array will be beneath a striking feature: a tower with two decks, a lower one for observation, an upper one for a

On non-cruise days San Francisco's new cruise terminal will become an events space taking advantage of the terminal's location and waterfront view



David Wakeley Photography

restaurant. Renderings depict the entire set piece as a new icon for Montreal, sitting right across Alexandria Basin from another icon, architect Moshe Safdie's Habitat 1967 pavilion for the World's Fair of 49 years ago.

Elsewhere in the Americas, officials and designers are planning a variety of marine passenger terminals that, while quite different in their settings and strategies, share a dramatic flair. The projects include:

“A lot of people think of cruise terminals as a glorified dock. However, they are a symbolic portal to your city”

Peter Pfau, architect

- A Toronto ferry terminal complex that will replace a facility that annually serves 1.3 million foot and vehicle passengers travelling between the city, residential neighbourhoods, and parks. In 2015, a city jury selected architects KPMB, West 8, and Greenberg Consultants, to come up with the ultimate vision of an environment-friendly terminal. The facility will have an undulating green roof that seems to flow into the topography of a waterfront park also being designed as part of the complex.
- Royal Caribbean's USD55 million, 11,612m² cruise terminal in Bayonne, New Jersey, opened in 2014. The terminal, a renovation and addition to an existing structure, serves the cruise line's 4,180-passenger *Quantum of the Seas* and is an important component of a process to remake, update, and reinvigorate the cruise port environs. In an attractive touch, the outside of the terminal sports a line of rigid white canopies that

lend shelter while suggesting festive travel and holiday.

• Another Royal Caribbean initiative, this time at the Port of Miami, is an ongoing planning process for a 15,793m² cruise terminal to serve 5 million cruise passengers annually. Officials are reportedly sifting through design proposals for the terminal from several well-known architectural firms, including Zaha Hadid, New York's Asymptote Architecture, and Copenhagen's Bjarke Ingels Group. Although the terminal's final design is unknown, it would be sited in a district being targeted for dramatic developments, such as a David Beckham-backed soccer stadium.

On a much smaller scale, a ferry passenger facility, the East 34th Street Ferry Terminal in New York City, wants to turn its seemingly simple structure into something quite distinctive. It's simply a roof over a pier – until details are considered. As designer, Kennedy & Violich Architecture describes on its website, the roof structure is “a tensile textile roof canopy” with a high-tech LED lighting system that uses GPS and sensors and keys changes in lighting effects to changes in the tides and flows of the East River, which is an estuary.

The general notion of making an otherwise routine ferry terminal into something more follows the 2008 opening of New York's Battery Park ferry terminal. There, a floating barge is outfitted with an ultra-modern rigid canopy roof, a glass curtain wall and a masonry floor.

Whatever its size and scope, designing efficient, attractive terminals takes vision as well as skill.

Pfau said it made a big difference when clients, such as ports, were clear early on about key factors in addition to financing. He explained that key questions include what types and sizes of ships, and accordingly numbers of passengers, a proposed terminal will be servicing in the short and longer term. How many days a year will vessels call, and potentially how many at once, again in the short and longer term?



Rendering of a new iconic terminal for Montreal that will serve the growing cruise industry and provide recreational spaces. Work could begin in 2017



Royal Caribbean terminal in Bayonne, New Jersey: renovation and extra building was completed in 2014



David Walely Photography

San Francisco's James R Herman Cruise Terminal opened in 2015. Inside it has flexible spaces to help monetise the terminal year-round

At San Francisco, cruise vessels call 80 days each year, according to Pfau. Accordingly, officials there thought through answers to the question, "What are you doing with this investment [the new terminal] on all the non-cruise days?" The solution: accommodate events by taking full advantage of the terminal's coveted location and its "awesome waterfront view," said Pfau, who explained that this aspect was "a design driver".

Officials also cast a wide net in terms of the type of events that could be hosted. Accordingly, the terminal is flexible in its spaces and uses. As the Port of San Francisco puts it, the terminal "quickly converts to the city's newest and most spectacular event centre", capable of hosting multiple simultaneous events. Additionally, the interior has "flexibly designed spaces

and dividers, stackable furnishings, mobile check-in booths and security screening equipment and shared AV resource hubs". It all adds up to "a design to help monetise" the terminal year-round, explains Pfau.

Finally, major passenger terminals are about symbolism as well as competitiveness. Pfau added, "A lot of people think of such structures as a glorified dock. However, they are a symbolic portal to your city, the first place you arrive, the entry hall to your city and the departure hall as well."

Such terminals, he explained, make important impressions and memories "particularly when there are multiple ports of call". If a port or other client is going to invest the money, he added, "make sure the terminal is going to be an attractor". **PH**

Marseille's forward thinking

Port of Marseille's operations director, Christophe Piloix, told *P&H* about its operations and plans for two new terminals

France's first and largest cruise and ferry port, Marseille, is the gateway to France's second-largest city. Last year about 1.455 million cruise passengers passed through the city, an 11.7% increase over 2014. Its forecast for 2017 is 1.7 million passengers.

The future for cruise and ferry activities in Europe looks positive, said the port, and it is now time to think ahead so there is sufficient infrastructure to meet long-term demand. These seemingly simple requirements can be quite complicated, it added.

At present there are two trends taking place at Marseille, according to Port of Marseille operations director Christophe Piloix.

The first is for its cruise ship operations. Piloix noted Europe's tendency to "interconnect two existing terminals via an external gangway". This means one terminal can be dedicated to embarking operations and the other to disembarkation.

This strategy, which was inaugurated at a major cruise port in Florida in the United States, is now in use at a Spanish port and at Marseille Provence Cruise Terminal.

There is also a trend to have one dedicated terminal for each ship, he commented. "Marseille has recently commissioned two additional cruise terminals and a third one is projected. This will allow the port to operate five turn-around calls, offering six available berths in four different terminals," he said.

The trend for its ferry terminals is to use a modular concept. Each module consists of an embarking control unit and debarking control unit. Modules can be grouped together to create structures that serve the requirements of each individual ferry operator at the terminal. This enables the port authority to entrust the security functions to the operator using the structure, explained Piloix, whereas a classical terminal would require security to be shared across all the operators, which "generally would then be at the port authority's cost".

He said future international ferry terminals at Marseille in the Cap Janet area would be made up of two structures and two different operators, with each structure having two embarking and disembarking modules for customs, immigration, and shipping company controls.



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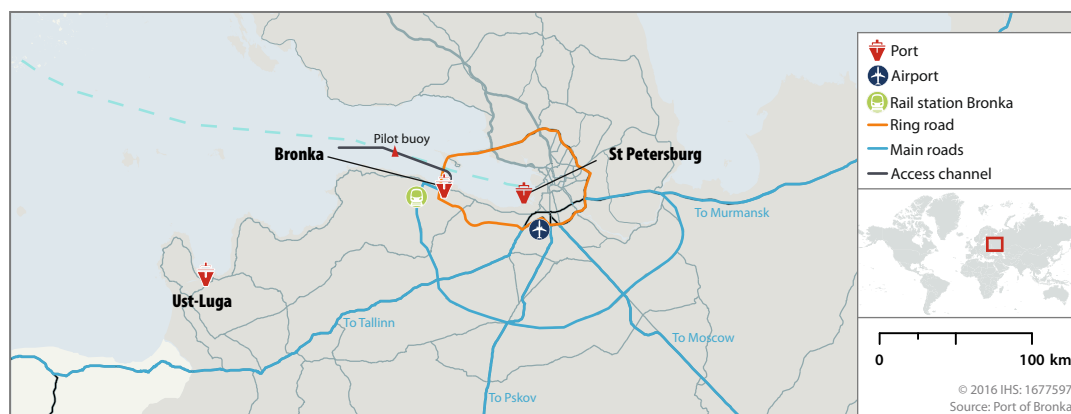
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St Petersburg aims for container coup

Port Bronka, within Big Port St Petersburg, aims to exploit an increase in Russia's container trade by making the most of its post-Panamax facilities and rapid transport links to Moscow

Russia has a new purpose-built hub port in Bronka, on the Gulf of Finland. It will be able to handle larger ships than its Baltic Sea rivals, and has set its sights on being the fastest way to reach Moscow.

At a press briefing in London in February, representatives from the Port Bronka said that, unlike the historic port of St Petersburg, which is unable to expand because of its central city location, or Ust-Luga, which "has no road" connections, the new facility has "unlimited landside capacity", direct access to key motorways, and rail connections with Moscow.

It received its first container block train from inland Shushary on 27 March. This carried 61 units of mineral fertiliser destined for Antwerp aboard CMA CGM's

Violetta. The port's first call on 31 January was another CMA CGM vessel, *Voronezh*. The port and CMA CGM came into an agreement on container handling in December, according to Stefan Wilkens, general manager of Bronka's container terminal.

He added that the new facility was "open for all carriers", and with a draught of 14.4m compared with 11m at St Petersburg, Bronka is prepared for post-Panamax vessels. While acknowledging that western sanctions, the fall in the Russian rouble, and the global economic climate were affecting Russia, Bronka officials believe the port will benefit from future growth in Russian containerisation.

In 2014, a total of 2.4 million teu passed through St Petersburg, but in 2015 that figure had dropped to 1.7 million teu. Commenting on the potential of the port, Wilkens said that while Europe had a teu per head of population of 122, in Russia' the figure was only 28, and the rest of the world stood at 97. That, he said, represented a "long-term positive" with "more structural growth potential".

Port Bronka is owned and operated by Fenix Group. To date, private funding totalling USD400 million has been invested in infrastructure and equipment, while public funds of USD200 million have been spent on the harbor approach and a ring road.

According to Fenix Group executive director Alexey Shukletsov, Bronka is targeting volume of 80 million tonnes and 1.5 million teu annually in the future. Initial trade targets are set at 3.8 million tonnes and 350,000 teu annually.

The port says it offers easy and speedy operations for post-Panamax vessels because of the port's long quay, modern handling equipment, including its four post-Panamax twin lift ship-to-shore cranes, low truck turnaround times, an on-dock terminal, and direct access to the motorways.

Construction of the 132 ha facility, which involved filling in a dam, started in 2010. Operations began towards the end of 2015. Royal Boskalis Westminster was awarded the contracts to dredge and construct Bronka port's shipping channel, as well as to reclaim the land needed for the project. **PH**

Port Bronka statistics

Water depth at approach channel and berth: -14.4 m

Distance from pilot buoy: 23 km

Quay length at the container terminal: 1,220 m

Quay length at the ro-ro terminal: 210 m (this is due to increase to 710 m in 2017)

Terminal area: 132 ha

Container terminal capacity: 500,000 teu at present, but to increase to 1.9 million teu when final stages are completed

Ro-ro terminal capacity: 130,000 units at present, but to increase to 260,000 units in 2017

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Dietmar Hasenpösch

Riga's 2020 vision drives development investment

Latvia's biggest and the largest non-Russian port in the Baltic has major projects swiftly moving off the drawing board to cement its place as the European Union's biggest conduit with its eastern neighbours, reports **John Pagni**

Freeport of Riga Authority (FPRA) is committed to investing EUR300 million (USD319 million) and aims to attract EUR845 million more in private investment by 2020 to fulfil its ambitious plans.

It continues to be buffeted by non-economic winds, with tit-for-tat sanctions a major stumbling block for a port that relies heavily on Russian transshipments, with more than 80% being to Commonwealth of Independent States (CIS) countries. An impressive 98% of transhipped cargo moves by rail.

Commenting on 2015's 2.2% overall drop in volumes handled from the previous year's record high, FPRA chairman Andris Ameriks said, "Unfortunately, we continue to feel the effects of geo-political events. However, being aware of the potential impact of European Union (EU) and Russian sanctions on the

handled cargo volume, FPRA forecasts a 10% drop in 2016 and expects a 8–9% revenue decrease compared with 2015. "It is important to emphasise that, despite the cargo turnover drop, FPRA maintains its status as the Baltic's non-Russian port."

FPRA offers tax exemptions that entice maritime and logistics firms and it is making investments to reconstruct its port channel, develop Krievu Island and Kundziņsala Island for terminal operators, and upgrade communications and transport links.

The port fairway, which currently has a depth of 13.5–16m, will be dredged to 15.5–17m. It will also be widened from 100m to 135–165m.

This will occur in two stages, with completion planned during 2018, at a cost of USD113.94 million, with co-funding from the EU Cohesion Fund.



‘Relocation will relieve the city from port activities and bring environmental benefits’

Edgars Sūna

FPRA marketing director

Krievu Island is described by FPRA as “formerly degraded, but now boasts deepwater berths and a modern infrastructure that complies with best global port practice”. Completion will see other objectives met. These include preventing further environmental degradation by port operations as the city centre is relieved of rising road and rail traffic and associated noise and dust. Coal forms 36% of the port’s throughput.

So while Riga’s historic centre, which welcomes more than 2 million visitors annually, is spared these nuisances, the port’s paramount competitiveness in the Baltic Sea region is maintained, with both banks of the river now handling equal shares of the load.

With 100% relief on value added tax, customs and excise duties and real estate taxes, plus 80% relief on income tax and leases of up to 45 years, companies can invest with a long-term view. The recently opened Riga Universal Terminal is a Mitsui subsidiary, while Riga Fertilizer Terminal and Riga Bulk Terminal are co-owned by Russia’s Uralchem and Rusagrotrans respectively, in partnership with Latvian interests.

About 80% of cargo is carried by rail. Box trains leave regularly for Moscow, Illichevsk, Almaty, and Hairaton. The Eurasian Multi-Modal Alliance (EMMA), a 2011 joint venture between Latvian forwarder SRR and French logistics expert GEFICO, takes cargo even further, to central Asia.

The arrival of increased ship tonnage means port rail infrastructure must be upgraded by both FPRA and Latvian railways. One example is a new bridge to Kundziņsala under a 2010–20 plan with a total budget of USD524.25 million. Ten terminals for dry bulk, containers, general cargo, plus multifunctional cargo handling alongside a logistics and industrial park will eventually be located on 181 ha of land.

In addition, there is the development of nearby Bolderāja, with three terminals handling different liquid cargoes. Located on 80 ha, by 2020, there will be terminals for oil products and LNG. The third will require the establishment of facilities for the production of bioethanol and infrastructure for its storage and distribution. The estimated cost is USD436 million.

Some Baltic ports have grown shy of Russian contact but Latvia shares the same 1,520 mm rail gauge as Russia, Riga is the closest port to Moscow, and many Latvians have language, family and business ties with Russia. The relationship seems set to continue. **PH**

Activity at Riga. The port relies heavily on Russian transshipment

Dredging has already started and, as a result, Panamax ships – and any ship able to enter the Baltic Sea – can now berth at Krievu Island.

Krievu Island was expanded and developed, with work completed in November 2015, under the Transfer of Port Activities from the City Centre project to relocate port operations from the Latvian capital. Riga and its port are both built on the banks of the Daugava River mouth.

Land reclamation increased Krievu Island to 56 ha, forming the base for dry bulk cargo terminals, with four new berths totalling 1.18 km in length. But more importantly, with its new 17 m depth, annual capacity can rise to 20 million tonnes annually.

“Relocation can begin,” Edgars Sūna, FPRA’s marketing director, told *P&H*. “Within two years, all stevedoring companies operating now in Andrejsala and Eksportosta must move there.”

He added that the relocation project, for which planning started in 2006 and construction in 2012, will “relieve the city from port activities and bring environmental benefits, removing noise, dust and vibration pollution, with 35% of FPRA’s total cargo throughput transferred away”.

FPRA’s general contractor, Latvia’s BMGS, has built or overseen the construction of berths, access roads and railway track, plus the installation of water and sewerage facilities as well as a telecommunications network costing USD142 million with USD82 million coming from Brussels. The remainder FPRA has raised through loans from the Nordea and Pohjola banks.

Singapore LNG starts quietly

In late January, Keppel Offshore & Marine and BG Group announced they had been jointly awarded the first licence issued by the Port of Singapore to supply liquefied natural gas (LNG) bunkers.

Singapore-based Keppel and UK-based BG Group are setting up a 50-50 joint venture company for LNG bunker delivery, combining Keppel's expertise in LNG vessel servicing with BG Group's diversified LNG portfolio.

Notwithstanding this news about Singapore's first LNG bunkering licence, a lack of LNG infrastructure in Asia, along with high distillate costs, provides owners with little incentive to switch from heavy fuel oil, according to participants at an International Bunker Industry Association forum held in Singapore in March.

Fuel oil prices are nearing a historical low and, unlike in northern Europe, LNG bunkering infrastructure is still underdeveloped in Asia. LNG prices are also higher in Asia than in Europe and North America.

The downturn in many shipping segments also means that many owners are unlikely to be able to afford cleaner fuels.

In recent weeks, a string of LNG project deferrals or cancellations have hit the market, including announcements by Malaysia's Petronas and Australia's Woodside Petroleum.

Industry sources in Asia also report that Golar LNG is pushing back work commissioned from



LNG barge *Greenstream* fills a ship's bunkers at Port of Antwerp. Low fuel oil prices are suppressing Asia's appetite for LNG bunkers

Keppel to convert two of three LNG carriers into floating LNG (FLNG) vessels.

IHS Market Survey System told *P&H*: "The outlook for proposed LNG projects – including FLNG – is challenging. The chief constraint on proposed LNG projects is the relative availability of demand. Although the oil price collapse in 2014/15 is pushing down oil-linked LNG prices, the LNG demand reaction is expected to be muted."

The International Maritime Organization has commissioned a fuel availability study to inform its decision on whether to implement a global sulphur cap in 2020 or postpone it to 2025. The study results are expected to be made public later this year.

"The LNG story will return; it's just a matter of when," predicted

Tessa Major, senior consultant at Port of Antwerp International. "Ports have more time now to get their infrastructure ready because of the fuel prices but [LNG] will be coming back for sure."

As regards the work of IAPH's LNG-fuelled vessels working group, last year it completed the deliverables it had set itself when it was established. These included the development of three bunkering checklists relating to ship-to-ship, shore-to-ship, and truck-to-ship operations. They are now available for consultation on the Ingbunkering.org website.

"These checklists will be updated as necessary as the result of new developments or comments we receive," Major, who chairs the working group, explained to *P&H*.



"We hope that ports thinking of creating LNG infrastructure will look at the Ingbunkering.com website as a source of information and as a starting point for the further development of their own procedures. We aim to give ports guidance and help as much as possible to harmonise procedures between ports."

In that context, the Singapore port authority, MPA, is continuing to develop its relationship with Antwerp and other north European ports to harmonise LNG bunkering standards. The relationship is the fruit of a memorandum of understanding signed in 2013 with Antwerp and its fellow Belgian port Zeebrugge. Since then this agreement has been extended to include the Port of Rotterdam.

A study released by the US Maritime Administration in February has revealed that methane leaks that occur during LNG bunkering operations are not only chipping away at the benefits of cleaner-burning LNG but could also increase fuel costs for owners.

The research found that methane leaks during bunkering represented a potentially greater source of greenhouse gas pollution than the release of unburned methane – known as 'methane slip' – that occurs via fuel combustion in the engine.

Notable numbers



6

Number of successful kidnappings in the Gulf of Guinea so far this year



1 Jan 2018

Date by which cargo and crew information must be submitted electronically



A Maersk vessel at Port of Savannah. US lawmakers say the industry must work out how to meet SOLAS VGM rule

US lawmakers look at impact of box weight verification rule

A panel set up to air complaints about, and find solutions to, issues surrounding the SOLAS container weight verification rule was led by US congressman Duncan Hunter on 14 April at a Capitol Hill hearing on maritime safety.

The rule, which comes into force on 1 July, turned into a debate between the World Shipping Council (WSC) and the Agriculture Transportation Coalition (AgTC), an agribusiness exporter group, on liability issues raised by the rule.

AgTC representative Donna Lemm testified that exporters would end up being liable for damages if they were caused by a container found to have a misdeclared weight under the new rule.

The rule requires that shippers ensure that the weight of the container and its contents is verified before being loaded on to a vessel. "What's bothering

shippers is that we've never been responsible for a container's tare weight before," Lemm said.

"The carriers are not looking to hold shippers liable," responded WSC president John Butler. "We own the container. If it's labelled inaccurately, that's on us."

Butler also testified that separating a container's tare weight from its contents would not work with the information systems that carriers have already designed in order to comply with the new rule. Doing so would require that data be input manually, Butler said, leading to supply chain disruptions, "which everyone wants to avoid."

Lemm insisted, however, that layering another verification system on top of the system already being used to certify weights was what would add costs and delays to the supply chain. She asked that the politicians consider writing a law

allowing exporters to use cargo weight methods already in place, or require that modifications to the current certification system be agreed between carriers and shippers. She also asked Congress to consider exercising its authority to review the convention entirely.

Hunter said that would not be happening. "There's not going to be a legislative answer to this," he said. "This is a deal that needs to be worked out in the market."

The International Maritime Organization's SOLAS Regulation VI-2 on Cargo Information, in effect since 1994, requires shippers to provide container weight information to vessel operators to ensure that containers are safely stowed.

An amendment to the rule in November 2014, to be enforced by 162 signatories to the SOLAS convention, requires shippers to verify the weight of each

container prior to loading.

AgTC has contended that American exports could be at risk in the global market if the rule, as implemented in the United States, allows carriers to force shippers to verify the weight of carrier-owned containers in addition to the weight of the cargo inside the box.

On the import side, the US Coast Guard has rarely, if ever, detained a container ship because of a container weight infraction under SOLAS since 1994.

Of a total of 33 inbound foreign-flag container ships detained for safety or environmental violations in the United States last year, not one was held because of container weight infraction, based on a review of monthly foreign vessel detentions available on the US Coast Guard's website.

In fact, while the number of inbound container ships as a percentage of all foreign inbound vessels detained in the United States has steadily increased over the past five years – from 8.2% in 2011 to 16.2% in 2015 – no vessels during that period were detained for container weight violations.

"Carriers are still nervous, not in the sense of what the rule is intended to accomplish, but the logistics of getting it in place so it doesn't disrupt operations at the last minute," said Vince DeOrchis, a maritime lawyer with the firm Montgomery McCracken.

The US Coast Guard has held several public outreach sessions on the issue in recent months, notably at the US Federal Maritime Commission on 18 February and at the JOC's 16th annual TPM Conference on 1 March.



3,809

Number of vessels with a positive ESI score at the beginning of this year



68%

Decrease in armed robbery and piracy in Asia compared with 1Q15



Dietmar Haerupusch

The FAL convention aims to harmonise procedures for ships' arrival, stay, and departure from port

IMO sets date for mandatory electronic information filing

From 1 January 2018 world shipping will be legally obliged to submit information about cargo, crew, and passengers to the relevant maritime authorities in electronic format.

The adoption of this mandatory requirement, which is an amendment to the Convention on Facilitation of International Maritime Traffic, occurred at the meeting of IMO's Facilitation (FAL) committee from 4–8 April. This convention aims to harmonise procedures for ships' arrival, stay, and departure from port.

The amendment comes into force on 1 January 2018 and

public authorities have up to three years to establish their systems for the electronic exchange of information. During a transitional period of 12 months from the

date of the introduction of systems to make electronic transmission mandatory, paper and electronic documents are allowed, the IMO said in a statement.

The FAL treaty was first adopted in 1965 and aims to secure what the IMO describes as "the highest practicable degree of uniformity in formalities and other procedures". The most recent amendment aims to "prevent unnecessary delays to ships and to persons and property on board".

While the 'single window' concept sounds ideal, it is vulnerable to both cyber and logistical challenges.

Cyber threats to the maritime transport network were discussed by the FAL committee at the April meeting, including the need to address risks to maritime single windows and processes for electronic certificates and data exchange between ships and shore, according to a statement from the IMO.

This also clarified that future cyber security issues would be discussed jointly between the FAL and maritime safety committees "to avoid duplication and so that principles could be applied to all stakeholders, both ship- and shore-side".

Logistically, the single window concept has faced challenges in Europe. This has been highlighted by the European Union's efforts to revitalise its shortsea shipping sector. The most problematic of these solutions, shipowners told P&H in November 2015, is Europe's Reporting Formalities Directive, which member states were expected to implement by 1 June 2015.

The legislation was designed to simplify ship reporting processes at ports by offering a single online point of data entry for ships calling at EU member

Greenhouse gas debate opens

As P&H went to press, the IMO's Marine Environmental Protection Committee (MEPC) was due to meet for its 69th session from 18–22 April. Watershed discussions were expected on the subject of reducing international shipping's greenhouse gas emissions.

Several other key issues were also the agenda, such as the inadequacy of reception facilities for HMEs (waste from ships likely to have residues from cargoes that are harmful to the marine environment), uncertainty about ballast water management systems (non-penalisation of first movers, bio-invasions in the Arctic, approval guidelines for ballast treatment systems) and about the planned sulphur emissions cap.



\$319M

Investment being made by Port of Riga in developments



10%

The drop in Great Lakes traffic in 2015

state ports. However, shipowners said their experience of the system had been problematic because of its non-harmonised implementation by member states.

Other standards revised at the FAL meeting include shore leave and access to shore-side facilities for crew, stipulating that there should be “no discrimination in respect of shore leave on grounds of nationality, race, colour, sex, religion, political opinion, or social origin, and irrespective of the flag state of the ship on which seafarers are employed, engaged or work”, according to an IMO statement.

Further work relating to stowaways also took place, with standards and recommendations updated, to include references to relevant sections of the International Ship and Port Facilities’ Security (ISPS) Code.

“A new standard requires governments, where appropriate, to incorporate into their national legislation legal grounds to allow prosecution of stowaways, attempted stowaways, and any individual or company aiding a stowaway or an attempted stowaway with the intention to facilitate access to the port area, any ship, cargo or freight containers,” said the IMO.

The committee also revised the IMO Standardized Forms (FAL forms) that cover: IMO General Declaration; Cargo Declaration; Ship’s Stores Declaration; Crew’s Effects Declaration; Crew List; Passenger List; and Dangerous Goods.

US ports wary of sharing cyber breach information

Executives at America’s largest seaports have revealed that one of the biggest challenges to battling cyber threats is taking down the virtual wall that separates traditional port security and a port’s IT management systems.

It’s a concern that continues to grow as ports around the country shift more of their resources towards reducing the risk of a cyber breach, whether accidentally from within or intentionally from an outside source.

“The brains of the security division and the IT departments are hardwired differently, and it’s been only recently that we said they ought to be talking to each other more,” Randy Parsons, director of security for the Port of Long Beach, told the American Association of Port Authorities’ (AAPA) Spring Conference in Washington, DC, on 6 April.

“It’s not working so well. Because creating a [cyber] strategy that intermixes the two – how we choose software, hardware, contractors – is being done with divergent thinking.”

The Port of Los Angeles, which with Long Beach constitutes America’s largest container terminal complex, is dealing with the same problem, according to Tony Zhong, who oversees information security there.

“We’re trying to bridge those gaps where security and law enforcement are sharing information on how we can catch



the criminals, because there’s no boundary in what the cyber adversaries are doing to the infrastructure,” Zhong asserted. “And we cyber folks need to work with security to make sure it doesn’t bring down the networks.”

American politicians are attempting to establish voluntary guidelines to nudge the cyber-threat reporting process along. A bill approved by the US House of Representatives in December includes a request that the National Maritime Security Advisory Committee (NMSAC) make recommendations to the US Department of Homeland Security on how to share cyber-security risks and incidents among government agencies and port and terminal operators.

That request has been met with opposition from commercial port terminals, however, through fear that making a cyber-security breach public could damage their reputation. “We’ve agreed to

disagree” on how to share cyber risk information, said Joseph Lawless, who chairs the AAPA’s security committee.

Lawless, a member of NMSAC, said the feasibility of establishing a cyber-sharing scheme between government agencies and commercial operations “doesn’t seem a likelihood, because there’s a great reluctance to share cyber breaches and cyber-security information across the board. So we reported back to the commandant of the [US] Coast Guard that we don’t think [the sharing scheme] at this point in time will work out.”

Lawless noted progress, however, on making cybersecurity a priority at US ports. Preliminary results of an AAPA member survey showed that 52% of its member ports had performed a voluntary cyber-security assessment within the past three years, and 67% had formed their own cyber-security working group.

Such voluntary programmes are important if port authorities and their terminal operators want to avoid legislation that could raise costs without doing enough to decrease cyber-security risks, Parsons noted. “We want to be in a position to say we’ve done these voluntary things so that we can avoid mandates, because lawmakers can’t all be subject matter experts in every area, they’re listening to other people about what our ports need.”

122,000 m³ Marine sediment to be moved from Whatcom Waterway

97%

The Panama Canal expansion project is nearly complete



CMA CGM *Turquoise*, pictured here in Hamburg, was attacked by pirates and crew taken in the Gulf of Guinea in April

Gulf of Guinea kidnappings up while pirate attack total falls

Despite levels of pirate attacks reported to the International Maritime Bureau (IMB) being significantly down on the same reporting period in previous years, the Gulf of Guinea continues to see incidents.

Reported attacks on two vessels in the region in mid-April indicate a rise in kidnappings in the region.

Chartered container vessel *CMA CGM Turquoise* was attacked by armed pirates off the coast of Nigeria on 11 April while heading from Lagos to Douala. Two crew members went missing, believed to have been kidnapped.

Owners of chemical tanker *Puli* confirmed that six Turkish seafarers, including the master, chief officer, and chief engineer, were kidnapped by pirates off Nigeria's Niger Delta, also on 11 April. The vessel was sailing from Gabon to Côte d'Ivoire when it was boarded about 90 nm from Nigeria's oil capital, Port Harcourt.

"Kidnap for ransom has made Niger Delta-based gangs increasingly realise the profitability of such trade for relatively little risk," according to economic country risk analyst Martin Roberts.

IHS data show that despite

the overall number of piracy incidences having been in decline since 2014, the proportion involving kidnapping or attempted abductions has risen. It has recorded six successful kidnappings in the Gulf of Guinea since the start of 2016, involving a total of 22 crew members, with the trend expected to continue because of a lack of adequate surveillance.

"Nigeria still refuses to allow private security company armed guards on vessels, citing sovereignty issues over use of force, and the country's navy still lacks the capacity to respond

swiftly enough to hit-and-run-style abductions," said Roberts.

Maritime security expert Dave Sloggett noted, "Of all the areas where piracy continues to extract its human toll, it is the Gulf of Guinea where the privations of piracy appear in stark relief to events elsewhere across the world. Even the once-infamous Malacca Strait has recently calmed down again as measures taken by local security forces have pushed back against an upsurge in violent attacks last year".

On 11 January a small product tanker, *Mariam*, was hijacked off Warri in Nigeria. A month later a similar vessel, *Maximus*, was hijacked in an area 300 nm south of Lagos. After an operation co-ordinated by the Nigerian Navy one pirate was shot and killed with the majority of the rest of the group captured.

"The outcomes of these incidents are starting to highlight the increased co-operation between the various maritime agencies involved in providing security to the Gulf of Guinea.

This sits alongside other measures such the deployment of dedicated maritime patrol aircraft, drone-based technologies, and intelligence gathered from shore-based radar systems," Sloggett said.

"The region is in being increasingly monitored both inside territorial waters and in the immediate fringes of international waters. While no official maritime transit zone has yet been defined in the Gulf of Guinea, masters of vessels are well advised to remain close to the territorial waters of Nigeria when transiting the area."



18.8 M

Tonnes of cargo handled by Port of Mormugao in 2015/16

\$172,000

Maximum loan amount available from BPA to national shipping companies

Pool your paperwork!

Chair of IAPH Port Finance and Economics Committee **Dov Frohlinger**, chief operating officer of Israel Ports Company, is gathering examples of prospectuses issued by port authorities as part of their efforts to raise capital in the financial markets. He is also looking for template lease agreements.

The Port Finance and Economics Committee is continuing its efforts to create a library of financial, economic, and commercial documents.

Sharing information among the membership in this way could help the relevant port officials identify the points that should be covered when preparing their own documents. It could also expedite the process and make it more efficient and cost effective for the port.

In order to facilitate the sharing of information available to all members via the IAPH

website, your assistance would be appreciated by providing examples of prospectuses published for the purpose of raising capital in the financial markets. Confidential details should, of course, be deleted.

The committee is likewise interested in sharing template lease agreements that could help members further improve their own agreements. Once again, confidential commercial terms should be deleted.

We appreciate your support and welcome any comments or suggestions on how our library database could be expanded to

“Sharing information in this way could help the relevant port officials”

Dov Frohlinger

Chief operating officer, Israel Ports



Israel Ports Development and Assets Co

provide further added value. if you have any questions contact info@iaphworldports.org.






MORE INFO:
www.iaphworldports.org

Membership notes

The IAPH Secretariat is pleased to announce the following new members:



Temporary member




Dublin Port Company

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 Email jmoore@dublinport.ie
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 Representative Eamonn O'Reilly, Chief Executive







Associate member

Impact People Strategies

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 Telephone +44-203-195-2118
 Email adf@impactpeoplestrategies.com

 Website www.impactpeoplestrategies.com
 Representative Andrew Feakins, Managing Director
 Nature of business activities Executive search firm specialised in sourcing mid/senior executives globally to the port and port-related sector.

Carbon War Room

 Address 1750 K St. NW, Washington, DC 20006, USA
 Telephone +1-202-4596223
 E-mail ghon@carbonwarroom.com
 Website carbonwarroom.com
 Representative Jules Kortenhorst, Chief Executive Officer
 Nature of Business Activities Non-profit organisation promoting solutions to climate change that are profitable to industry.

► Women's forum

Port of Gothenburg appoints its first female harbor master

Åsa Kärnebro, whose maritime career started at 16, was the main candidate from the outset. **John Pagni** reports

The biggest port in the Nordics countries has named a woman, Åsa Kärnebro, as harbor master to succeed Jörgen Wallroth, who held the position for 22 years.

Kärnebro has been deputy harbor master at the Port of Gothenburg (PoG) since 2010. While not the first female harbor master – not even in the Nordic region, as Carita Rönqvist has the role at Finland's Port of Kookola – Kärnebro is the first woman in the position at such a large port.

"Åsa was our first choice when we started the process and the obvious successor to Jörgen," said PoG's CEO, Magnus Kårestedt. "She has the drive that is needed to further reinforce an already safe, efficient port and I am convinced she is ideal for the job."

He pointed out that "during Jörgen's time, container volumes have doubled and PoG has developed into the large, modern European port we know today" and that Wallroth has been "highly instrumental in this expansion".

Shipping is traditionally a male-dominated industry and Kärnebro's new high-profile post could be considered a step towards changing that.

"I understand that [my appointment] may appear unusual, but I've been in this industry since I was 16 and in many previous positions I was also the first woman," she said. "Having said that, I know from experience that there are many people who are keeping a close eye on me."

Kärnebro first went to sea aged 16 as an ordinary seaman and progressed to

become an able seaman and ultimately master on both ships and passenger ferries.

She graduated from Kalmar University in 1992 with a degree from its operation and maintenance faculty with a focus on the maritime industry.

During her career, she has worked for several established names such as Swedia and DFDS Tor Line.

She then came ashore to assume the position of nautical manager at the Swedish Maritime Administration before taking up the role of deputy harbor master at PoG.

Kärnebro will be aiming to develop the port's arrival procedure to retain Gothenburg's position as the largest Nordic port. "But this requires clearer collaboration and more extensive sharing of information between the members of the port cluster and the vessels arriving at the port," she said in a statement.

"I am currently investigating how we can encourage all those involved to pull in the same direction even more and improve communication before the vessel arrives. If we can achieve this then we can reduce the lead times."

She also highlighted the need for increased collaboration between the port and the city of

Gothenburg for both to develop. "The Port of Gothenburg has over the years been an extremely important part of the city of Gothenburg," she said.

"I want to contribute to developing our collaboration even further. It is a great pleasure and a considerable source of inspiration for me to be involved in the work that is taking place in the city to develop the waterfront."

Kärnebro officially took up her new post on 20 April. Port of Gothenburg has also appointed Thomass Fransson as her assistant in her previous role.



Port of Gothenburg

“I know from experience that there are many people who are keeping a close eye on me”



(L to R): Vahid Aliyev, deputy general director of Baku International Sea Trade Port; IAPH secretary-general Susumu Naruse; Taleh Ziyadov, general director of Baku Port; Hiro Nagai of IAPH

Recently at HQ

Taleh Ziyadov and Vahid Aliyev, the general director and deputy general director of IAPH regular member Azerbaijan's Baku International Sea Trade Port, visited the IAPH head office on 14 March. In Tokyo on a business trip, they took the opportunity to exchange information and views on the IAPH Mid-term Ports Conference in 2018, which they had proposed to host in 2015.

Election result

Martin Byrne, chief executive of Port Nelson in New Zealand, has been elected as IAPH vice-president for the Asia/Oceania region. He has replaced Richard Joost Lino, former president director of Indonesia Port Corp II.

Byrne was elected in March by the regional regular members. "I am a firm believer in the opportunities that IAPH have to grow our membership and the value and networking opportunities that we can create to help achieve the aim of



Martin Byrne, CEO of Port Nelson

ensuring we remain a modern and relevant organisation."

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

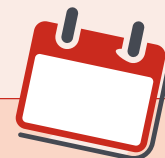
2016

2017

2018

Dates for your diary

A selection of forthcoming maritime courses and conferences



May

- 10-13:** IAPH Mid-term Ports Conference, Panama City, Panama
<http://www.iaphpanama2016.com>
- 15-16:** 1st International Oil Rail & Ports Conference, Tehran, Iran
<http://oilrailports.com>
- 16-27:** Port Congestion & Strategic Container Traffic Management, London, UK
<http://www.ttpminternational.co.uk>
- 18-20:** PIANC AGA 2016, Bruges, Belgium
<http://www.aga2016.be>
- 19-20:** Short-Sea Shipping: Myth or Future of Regional Transport, Le Havre, France
<http://devport2016.sciencesconf.org>
- 23-26:** Breakbulk Europe, Antwerp, Belgium
<http://www.breakbulk.com>
- 26-27:** 5th Black Sea Ports & Shipping 2016, Constanta, Romania
<http://www.transporevents.com>
- May 30- June 2:** 10th International Harbour Master Association Congress, Vancouver, Canada
<https://www.globalportoperations.com>

June

- 1-10:** Strategic Customer Relationship Management in Ports and Maritime, London, UK
<http://www.ttpminternational.co.uk>
- 2-3:** ESPO Conference, Dublin, Ireland
<http://www.espo.be>
- 7-8:** 2016 Cargo Optimization, New Jersey, USA
<http://www.aapa-ports.org>
- 13-17:** WODCON XXI-Innovations in Dredging, Miami, USA
<http://www.wodcon2016.org>
- 13-24:** APEC Seminar on Dredging Technologies, Antwerp, Belgium
<http://www.portofantwerp.com/apec>
- 13-24:** Strategic Port Logistics & Global Supply Chain Management, London, UK
<http://www.ttpminternational.co.uk>
- 14-16:** TOC Europe, Hamburg, Germany
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Canaveral Port Authority

Vision becomes reality

Investment in new assets has launched Port Canaveral's rebirth as an auto and container logistics hub, says **Captain John Murray**, CEO of Canaveral Port Authority

“Industry interest is driving plans for development of a new double-sided ro-ro berth”

As a premier maritime gateway, Port Canaveral is investing in the facilities shippers need to take advantage of Central Florida's time- and cost-saving location, with its proximity to major markets and efficient transport links.

These facilities include harbor improvements, adding 30m of navigational width, increasing depth to 14 m, and creating on- and off-port assets that amplify capabilities and business activity.

For vehicle manufacturers looking to ship directly into Florida, Canaveral Port Authority developed a paved site for use as an automotive terminal in late 2015. Delaware-based vehicle processor AutoPort is now operating the site as its first southeast US terminal.

NYK, owner of the world's largest ro-ro fleet, began a monthly service to Canaveral in October 2015 and is filling ships to capacity with used vehicles for export. Industry interest is driving plans for development of a new double-sided ro-ro berth in addition to other new berths

to accommodate expanding business.

Canaveral Cargo Terminal, Port Canaveral's first dedicated container facility, opened in 2015 and is the first US venture for Gultainer, the world's largest privately owned terminal operator. To complement the port's investment in berths and ship-to-shore cranes, GT (Gultainer) USA is investing USD100 million in infrastructure, equipment and staffing. In January 2016, Streamlines, part of the Seatrade Group, made Port Canaveral the exclusive US stop on its BlueStream weekly container service.

Recognising the importance of strategic distribution facilities to cargo customers, Canaveral Port Authority acquired two off-site locations for the region's first Class A warehouse. Port Canaveral Logistics Center at Titusville was due to open just after *P&H* went to press in May and plans are moving forward for an Orlando-Port Canaveral logistics park. As the plan progresses, Port Canaveral's vision of developing into a regional multimodal logistics and distribution hub is becoming a reality. **RH**

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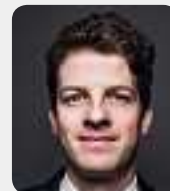
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