

PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors



Slow but steady

Europe's ports chalk up modest growth

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China is investing heavily in infrastructure, with profound implications for its – and the world's – ports

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May/June 2019
ISSUE 3 VOL 64

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PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

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

Publisher: Secretary General of IAPH

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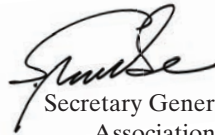
Printed by Warners Midlands plc

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



A bumpy road

With growth and trade slowing, ports should beware



Susumu Naruse

Secretary General – The International Association of Ports and Harbors



Following IMF revision of its 2019 forecast of global output to 3.5%, managing director, Christine Lagarde, recently implied that there was a possibility that the forecast could be lowered further, noting that “this is a delicate moment for the global economy”. In addition, the WTO announced in April that world trade will continue to face strong headwinds in 2019, and expects merchandise trade volume growth to fall to 2.6% in 2019 – down from 3.0% in 2018. Given that, 2019 could be a tough year for the port industry.

As you will see in this issue’s Brexit article, because a consensus on the UK’s withdrawal agreement from the EU has not yet been reached, European ports need to prepare for the multiple alternatives for their new trading relationships with the UK. We can only hope that the confusion comes to an end and that a mutually beneficial agreement is reached as soon as practicable, in order for the negative effects on the port and trade business to be minimised in Europe.

As was discussed at the World Ports Conference in Guangzhou, and has also featured in this issue, a “Greater Bay Area

“2019 could be a tough year for the port industry”

integration” or an integrated planning concept in wide bay areas is indispensable to realise efficient port logistics, and create a better urban environment in many highly populated areas. Without this kind of concept, port and urban environments can become

disastrous in metropolitan regions. I have been involved in the study of the Vladivostok Bay in Russia, where a variety of port functions have become sprawling and messy; multiple container terminals, coal terminals, and bulk terminals, all of which are planned and operated by several different private owners and are independently located in separate areas of the small bay. The Chinese authorities are wise to try to harmonise the developments and operations of individual ports using wider-range perspectives, in order to pursue efficiency and avoid sprawl in the bay area.

Here in Tokyo, the country is entering a new era that is based on the reign of the emperors, as of the beginning of this May. Recalling the past 10 years as the secretary general, IAPH has experienced a lot of changes, such as total revision of the Constitution and the creation of WPSP instead of WPCI. I would like to thank you for all the support you have shown to IAPH and hope your support will continue for decades to come. **PH**

Port updates

► LAS PALMAS WALL

OHL subsidiary SATO has been contracted by the Port Authority of Las Palmas to construct a 322 m seawall in the Spanish port of Arrecife, Lanzarote, in an agreement worth EUR8.1 million (USD9.1 million). The move is designed to extend the existing cruise wharf Arrecife, as well as protect the port from frequent storms. The new dike will be formed by two sections differentiated according to their typology. Section I, about 205 m long, will consist of a revetment breakwater whose trunk will be formed by a layer of 6-tonne Cubipods. Section II, on the other hand, will consist of a vertical dam of 118 m in length manufactured with four reinforced concrete caissons.



► HUENEME DEEPENING

The US Army Corps of Engineers has completed an environmental assessment for the proposed deepening of Hueneme port, at the city of Oxnard, California. This will allow access of larger vessels, as well as to reduce approach times and lower costs, the Corps said.

► JAWAHARLAL DREDGING

India's main container port Jawaharlal Nehru Port Trust (JNPT) has embarked on an expansion of its approach channels to allow container vessels of up to 12,500 teu to dock, as well as a new warehouse for its special economic zone (SEZ). So far work has included deepening and widening of the existing access channel from 14 m to 15 m. Meanwhile, a new free trade warehouse is due for completion in 2019.



Port of Corpus Christi/5083494

The terminal would allow Corpus Christi to handle the largest vessel sizes

Corpus Christi signs 50-year oil export terminal lease

The port of Corpus Christi, Texas, US, has approved a 50-year lease agreement with Lone Star Ports, a Carlyle-Berry Group joint venture company, for a 80,000 m³ petroleum export terminal on Harbour Island, Bahamas.

Civil works have been under way for at least a year to clear away a derelict ExxonMobil facility on the island.

On completion the facility's two new docking positions will be dredged to a depth of 17 m, making it the first petroleum export terminal in the US capable of handling the largest vessel sizes, in a market that has thus far been limited to partially loaded vessels or Aframaxes.

"This long-term commitment is testament to the significance of the Corpus Christi gateway for American energy exports, which are expected to triple in the next decade," said Port of Corpus Christi CEO Sean Strawbridge.

The new lease would "position the Port of Corpus Christi [as] the preferred outlet for US-produced crude exports serving all major global demand centres for generations to come", Strawbridge added.

However, many local residents have told authorities they will try to prevent the project from taking place, citing ecological concerns about the dredging operations. Representatives of the fledgling anti-terminal campaign told local news stations that the dredging operation would change the properties of the channel water and seriously impact local wildlife.

Representatives of Corpus Christi port were forced to climb down from their initial proposals of a 22 m depth ship channel from its entrance all the way to the La Quinta Junction near Ingleside after a feasibility study found it to be too expensive.

Meanwhile, the project has

been delayed briefly after former port commissioner Kenneth Berry sought a temporary restraining order from Country Court Judge Mark Woerner, on the grounds that the port had violated the Open Meetings Act and sought to conduct the deal away from public view. However, the judge quickly overturned the decision.

Civil works for this facility-repurposing project have been under way for the past year ahead of finalising a definitive lease agreement, including the demolition of existing dock structures from a previous decade-old Exxon crude import terminal on Harbour Island. The execution of this new lease enables the parties to commence major equipment and materials procurements and other construction efforts. The project is due for completion in 2021. It is projected to generate USD2–4 billion for the port.

Dublin port to limit cruise ship admittance

Following an increase in the number of cruise ships calling at Dublin port over the past decade, Dublin Port Company has announced plans to dramatically scale back the amount of these vessels docking at the port.

Between 2012 and 2018 cruise liner calls at the port rose by 36%, but now the port is choosing to prioritise cargo vessels over commercial cruise liners, and will limit the number of cruise ships that can berth there annually to 80 ships from 2021.

There are 160 cruise ships due to stop at the port in 2019 and 140 bookings so far for 2020. The higher cargo and cruise numbers have created increased competition for berthing space at the port.



From 2021 onwards, Dublin Port Company will prioritise cargo vessels

The changes are outlined in Dublin's new cruise ship berthing policy and pricing policy. Should cruise ships wish to continue to berth at Dublin port post the 2021

restrictions, cruise operators will be required to co-finance or invest in new berths to be constructed at North Wall Quay Extension, adjacent to the Tom Clark Bridge.

Port updates

► CAIRNS EXPANSION

A tender has been awarded to RN Dredging (RN), the Australian subsidiary of Rohde Nielsen A/S, as part of an AUD127 million (USD89 million) dredging and construction project at Cairns port. The project is due to take place over 12 weeks during the April–November 2019 dry season, and will dredge up to 1 million m³ of sediment from the port's access channel, placing the material on two land sites. According to Ports North chairman, Russell Beer, the selection of a dredging contractor was based on assessing their experience, methods, equipment, and capability to meet strict requirements.

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Port updates

► ADELAIDE DREDGING

Flinders Ports has awarded Royal Boskalis a EUR40 million contract to deepen and widen the access channel to Port Adelaide, Australia. The channel will be increased to a width of 170 m from the current 130 m to accommodate larger cruise vessels and boost tourism levels, as well as enable post-Panamax box ships to call at the port.



170 m

► CMEC BULGARIA

China Machinery Engineering Corporation (CMEC) has signed a USD135.5 million port construction project with Logistic Center Varna EAD to develop infrastructure in Bulgaria's Varna port. CMEC will lead the project's design optimisation, material supply, and be the prime contractor for its construction, which is expected to take around three years. The upgraded port will greatly enhance Bulgaria's port-handling capacity, CMEC said.

► TAMPA COMPLETION

A USD63 million dredging project to widen and deepen a channel leading to Port Tampa Bay has been completed a year ahead of schedule, the port said. The work will allow larger vessels to call at Florida's 270-acre Port Redwing terminals. The US Corps of Engineers' Jacksonville District awarded the dredging contract to Great Lakes Dredge & Docks Company.



Container traffic at Virginia is rising

Port of Virginia expects healthy 2019 growth

The port of Virginia has seen a slight uptick in laden container traffic since last summer, up 0.4% between July and February on a year-over-year basis, but port officials are confident that signs point to growth ahead. Rail traffic is on the rise, as are shipments moving by barge to Richmond. Truck drivers also acknowledge that terminal congestion, which has been a problem at Virginia International Gateway (VIG), is not as bad as a year ago, when excessive turn times sparked widespread drivers protests.

And after a rough October, data clearly show turn times are trending in the right direction. Port authority officials say they are optimistic beneficial cargo owners (BCOs) will experience even better service as larger intermodal facilities are completed, larger cranes are put into regular use,

the harbor is widened and deepened, and new rubber-tire gantry cranes are deployed at Norfolk International Terminals.

Although growth has not been exponential, Virginia's volumes are trending in the right direction. Through the first eight months of the port's fiscal 2019 year, which runs from July to June, overall throughput – including empty containers – has grown 2% year over year, despite a 7% decline in vessel calls. Loaded imports from Asia increased 4.2% in 2018, although Virginia's share of the east coast market fell from 13.1% in 2017 to 12.5% in 2018 and 12.1% in January and February, according to PIERS, an IHS Markit product.

"The state of our port is very healthy and we're building the capacity for greatness," said John Reinhart, Virginia Port Authority executive director, in his State of

the Port address to the Virginia Maritime Association in early April.

An expansion project is almost complete at VIG that will see the container terminal go from 15 container stacks to 28, with semi-automated cranes serving truckers. A new rail yard at VIG that will allow crew to more easily build 3,048-m double-stack intermodal trains and put more containers on the actual yard itself, is also scheduled to be completed next month.

Three renovated berths are now online at VIG, with four new cranes that are taller than any in North America. Along with three more rehabilitated berths and two super cranes in NIT, Reinhart says the port will be able to handle six 14,000 teu vessels simultaneously, if necessary. The largest vessels to call the port so far have been two 14,000 teu

ships from CMA CGM and Mediterranean Shipping Co.

Reinhart says he expects to see three or four 14,000 teu vessels calling in Virginia simultaneously next year. "When the 2020 IMO rules kick in, ocean carriers are going to want to get rid of smaller vessels, so I think we'll see several calling at once next year," he said. One potential impediment is that the Thimble Shoals channel is only 396 m wide today, meaning only one large vessel can arrive or exit at a time. As part of the dredging project, the channel will be widened to 426 m, allowing two vessels to pass by each other en route to and from terminals.

Dredging work will begin in January 2020, and Reinhart tells the audience he believes it will be done by the end of 2024. The project will deepen Thimble Shoals to 17 m and the inner harbor to 16 m at mean low tide, making it the deepest port on the US east coast, capable of handling vessels with up to 18,000 teu in capacity. "Charleston can have the mark of 15 m for a few years. We're going to take that back soon," Reinhart said.

Aside from rehabbing its berth and adding two new cranes, the process is under way to double the size of NIT's container yard. Until now, NIT had 15 container stacks using manually operated cranes. Eventually it will have 30 stacks with semi-automated cranes, 18 of which will be completed by this autumn.

"The first 12 stacks are done, the next 6 will be done this summer," Reinhart said. "The 18 stacks will be operational by August for the shippers ramping up peak season. When we have phase one and two done, we'll have more capacity than we did even before we began construction."

Port of Rotterdam to partner on hydrogen study

The port of Rotterdam has joined forces with energy firm BP and chemicals company Nouryon to form explore the production of "green hydrogen" via water electrolysis for use in BP's Rotterdam refinery, which has the potential to enable significant reductions in CO₂ emissions.

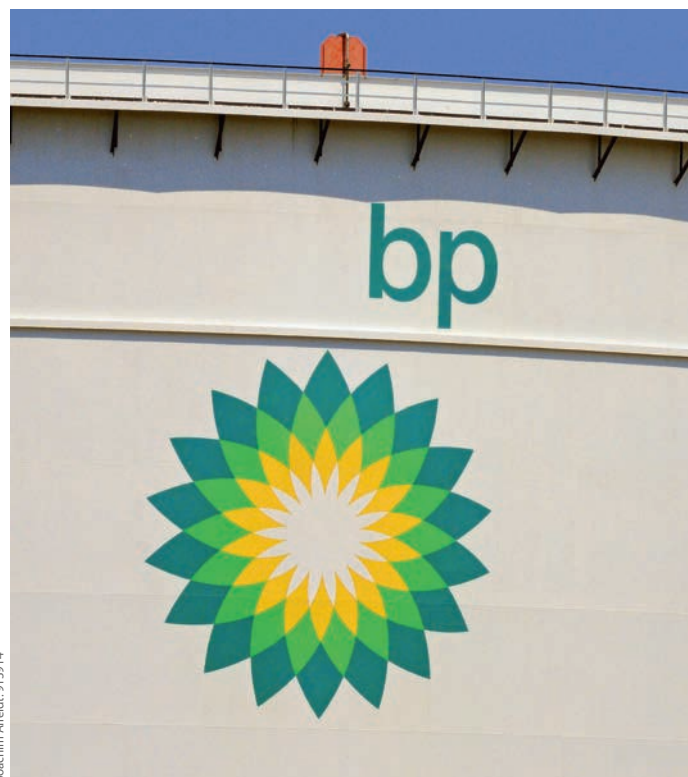
Currently, the refinery uses hydrogen made from hydrocarbons to desulphurise products. Replacing this with green hydrogen produced from water using renewable energy could result in a reduction of 350,000 tonnes of CO₂ emissions per year, the companies believe.

The parties have signed a memorandum of understanding to study the feasibility of a 250 MW water electrolysis facility that would produce up to 45,000 tonnes of green hydrogen yearly using renewable

energy. It would be the largest of its kind in Europe.

Nouryon would build and operate the facility, while the port of Rotterdam would provide local infrastructure and investigate the further development of a green hydrogen hub. The partners intend to take a final investment decision on the project in 2022.

Allard Castelein, CEO of Port of Rotterdam, said, "Development of large-scale electrolyzers connected to offshore wind farms is vital for making solid progress with the new energy system in order to realise our climate goals. This 250 MW electrolyser is a key proof point that Rotterdam has the ability to be a frontrunner in the energy transition, which is an important differentiator for the port industry."



Joachim Affeldt: 913914

Using green hydrogen in BP's Rotterdam refinery could reduce CO₂ emissions

Port updates

► GOTHENBURG APP

Gothenburg Port Authority has launched an app to make bunkering at the port easier and more efficient. The bunkering app is one of the first in the world to offer this range of functionality. The app is available to all bunkering operators at the energy port. Instead of reporting manually via email and phone, they submit advance bunkering notification using the app. The app also shows available collection points for loading marine fuel onto bunker vessels.



► MONTREAL GROWTH

Montreal's Viau terminal, which handles an annual 350,000 teu, is set for expansion under Phase II of the Montreal Port Authority's development plan. Beginning in September 2019, expansion works will include the installation of piles, dynamic soil compaction, underground infrastructure works, foundation laying, paving, and work on the local railways. Phase I of the port development was completed in 2016.

► CCCC CANAL

China Communications Construction Company (CCCC) has completed the deepening and widening of the Vridi Canal in Ivory Coast, eight months ahead of schedule. Funded through a loan from China's Eximbank, the project was the first of its kind at the port since its construction in the 1950s. It is part of a wider initiative called the CHEC Abidjan Port Expansion Project.

Port updates

► ROTTERDAM VOLUMES

First quarter container throughput at the port of Rotterdam soared 7.3% compared with last year, despite slowing volumes on the continent's largest source of business, the Asia-North Europe trade. Europe's busiest container port handled 250,000 more teu from January to March than during the first quarter of 2018, a result the port attributes to growing demand for feeder services.

► NY-NJ DIRECTOR

The Port Authority of New York and New Jersey has named Sam Ruda, a 29-year industry veteran with experience working in ports, as well as on the shipper and ocean carrier side, director of the fast-growing and largest port on the US east coast. The port authority picked Ruda, who has served as an interim port director for five months, after conducting a nationwide search to replace Molly Campbell, who left the position in October 2018 to take a fellowship at Harvard University. Ruda takes the helm as the port is handling record container volumes.

► MANZANILLO CUSTOMS

Customs services at Mexico's largest port, Manzanillo port, will be available round the clock under a plan that federal customs authorities are putting together to help move cargo through the port more quickly. The plan will increase staff by 50% and promises to improve fluidity, reduce congestion, and better handle high-single-digit volume growth at Mexico's busiest port. Under the Mexican Customs Administration's plan, the operation hours will be extended to 24 hours a day from Monday to Friday, the federal Service Tax Administration, which oversees the Mexican customs administration, said. Customs currently clear cargo from 8am to 9pm on weekdays.



Cochin Port: 886732

Cochin port has seen a sharp increase in volumes

India reforms fuel productivity gains

Port reforms in India are bearing fruit for ocean carriers, with state-owned ports notching impressive productivity gains in the country's fiscal year 2018–19, which ended on 31 March.

According to analysis by JOC.com, part of IHS Markit, average turnaround times for vessels calling at India's major state-owned ports slid from 64.43 hours in 2017–18 to 59.85 hours in the most recent fiscal year.

Among the 12 major ports, which are spread equally across the country's eastern and western coasts, Cochin recorded the shortest average turn time at 35.21 hours, a substantial improvement from 44.88 hours a year earlier. Ship calls at Jawaharlal Nehru Port Trust (JNPT), India's busiest container gateway, took an average of 51.36 hours during the year, compared with 53.76 hours previously. JNPT handled 2,582 ship calls with a total cargo throughput of 70.7 million metric tons (about 78 million tonnes) in 2018–19, compared with 1,156 calls and 32 million metric tons at Cochin port.

Thanks in part to its productivity, Cochin's container-handling facility, the DP World-operated International Container Transshipment Terminal (ICTT), logged an industry-leading 14% year-over-year increase in volume in the final quarter of fiscal 2018–19. "This growth is attributed to the terminal's persistent efforts in enabling smarter trade solutions, delivering world-class productivity and is a testament to its increasing prominence as South India's leading gateway. The terminal's in-house developed TOS [terminal operating system], ZODIAC, and RFID [radio-frequency identification]-enabled gate movements facilitate optimisation of time and seamless movement of cargo," DP World Cochin officials told JOC.com.

Combined, India's major public ports handled 699 million metric tons of cargo during the fiscal year, a 2.9% year-over-year gain, with containerised trade surging 8% to 9.9 million teu, according to JOC.com data. Other noteworthy efficiency gains included a

reduction in turn times from 52.99 hours to 47.41 hours at the port of Chennai, from 64.56 hours to 47.04 hours at VO Chidambaranar Port Trust (formerly Tuticorin), and from 61.99 hours to 60.23 hours at Visakhapatnam, according to the analysis.

Vessel turn time was not the only performance metric trending in the right direction last year. New data show average pre-berthing detention times for the 12 public ports also fell from 8.46 hours to 5.74 hours, while cargo output per ship berth day rose from 15,333 metric tons to 16,434 metric tons. Individually, Cochin again emerged as the best performer, with no pre-berthing delays, while JNPT shortened pre-berthing wait times from an average of 8.88 hours previously to 6.96 hours in 2018–19.

In terms of ship-to-shore activity, JNPT also boosted its average gross crane productivity to 37.12 teu moves per hour, compared with 33.97 moves per hour in 2017–18. By terminal, DP World's "futurist" Nhava Sheva (India) Gateway Terminal (NSIGT) clinched the top spot in terms of crane speed with 43.73 moves per hour, up from 40.14 moves per hour in the previous year, while JNPT's busiest facility, APM Terminals' Gateway Terminals India (GTI), came in second with 43.57 moves per hour, up from 40.81 moves per hour in 2017–18.

For ocean carriers, terminal productivity is a key differentiator when deciding between multiple ports in the same general geographic region. The challenges for terminal operators have only grown, however, as a steady increase in ship sizes mean more cargo being loaded and unloaded during each individual call. If a vessel spends less time in port, the carrier saves money on berth hire fees and bunker fuel and the ship has a better chance of arriving at its next port of call on time, important factors in the shipping industry.



Trieste Port Authority: 5109693

Zeno D'Agostino, president, Trieste Port Authority

Iron and water along the Silk Road

Zeno D'Agostino, president of Trieste Port Authority, writes that China's major moves on the Mediterranean logistics chessboard make Italy an interesting case study

On 23 March 2019 in Rome, the Italian and Chinese governments signed a co-operation agreement concerning the New Silk Road. The agreement contains a section dedicated to developing synergies between the Belt and Road initiative and the Italian transport and infrastructure system, particularly with regards to opportunities related to the EU-China Connectivity Platform, which is the bilateral EU-China initiative that aims to improve the connectivity between the two blocks.

Under the agreement's umbrella, two Italian ports included in the EU-China Connectivity Platform – Genoa and Trieste – have in turn signed agreements with China Communications Construction Company (CCCC), a leading Chinese infrastructure company. CCCC is also involved in the

EU-China Connectivity Platform, an initiative that has been the 'institutional cradle' of the agreements underwritten by the two ports. As well as Genoa and Trieste, the port of Palermo may also receive Chinese investment.

The contents of the Port of Trieste's agreement are focused on a logistics partnership, and provide food for thought on the strategic aspects of China's role in the Mediterranean and in Europe.

Two closely related factors have emerged: China is showing increasing interest in southern Europe, especially to reach the dynamic countries of central and eastern Europe through the Adriatic Sea. At the same time, it has confirmed its keen interest in railways, which it has integrated into its strategy for connecting with ports.

The upcoming 2020 entry into force of the

IMO's new emission standards for ships – which will advantage Suez-Mediterranean routes to the detriment of Suez-Northern Europe routes – combined with the EU's goal of transferring at least 30% of modal transport of goods from roads to railways by 2030, are focusing increased attention on a port like Trieste whose competitive advantage lies precisely in its railway access.

In Trieste's case, railway links to Europe are already fully in place, unlike the far more complex situation between central Europe and the port of Piraeus in Greece. Not coincidentally, the core content of the cooperation agreement between the port and CCCC essentially concerns railways.

In addition to an interest in developing rail infrastructure in the port region, the agreement also highlights opportunities to integrate the central European hinterland. Indeed, the framework also includes the goal of developing the Kosice terminal in Slovakia, which CCCC is planning to build and manage, and which, through the partnership, could be added to the port of Trieste's rail network.

In light of the partnership for Kosice, the Chinese co-operation agreement also highlights the port of Trieste's strategic approach to its railway hinterland, which is based on the concept of the "intermodal pipeline" through close collaborative relationships with the main inland terminals (currently being developed with Duisburg, Bettembourg, and Budapest).

The port of Trieste is pursuing a new concept of integrated port/rail logistics: all railway and intermodal platforms within 40 km of the ports of Trieste and Monfalcone will soon be managed by the Port Authority as a single entity whose aim is to integrate and mix rail and intermodal flow, including both port and non-port flows.

The integration of a number of different railway flows in the nearby platform of Cervignano del Friuli – a crucial rail hub between Italy and Europe with a high-capacity line – provides the conditions to launch direct Italy-China rail links. These could use the Trieste/Cervignano-Budapest segment that is already used by 13 pairs of trains per week to reach inland areas of China that are not easily accessible via sea.

To understand how China will move on the European chessboard, the experience of the Eastern Adriatic Sea teaches us to look more closely at how strongly China is interested in establishing indissoluble links between iron and water. **PH**



IHS Markit: 51 091 63

Sustainable future

On the sidelines of a meeting to discuss the UN's Sustainable Development Goals (SDGs), the IAPH's Patrick Verhoeven and Mediterranean Shipping Company's (MSC's) Bud Darr discuss what the industry is doing, will be willing, and should be doing to boost sustainability. **Jonathan Robins** reports

IAPH's Patrick Verhoeven and MSC's Bud Darr

With the IAPH's World Ports Sustainability Program (WPSP) working to promote best practices and co-operation, the port industry's impact on the environment, human rights, and wider society has never been more topical. And amid a myriad of port sustainability projects being trumpeted from across the globe, including several that have been shortlisted for the WPSP's Sustainability Awards, the industry is clearly embracing the issue. Given this, it is perhaps easy to forget that a hunger for sustainability is relatively new to the sector.

"Over the past five years I think there has been a very large step change in enthusiasm," said Darr, who

is MSC's executive vice-president for Maritime Policy and Government Affairs. Whereas before sustainability was something that many companies begrudgingly paid lip service to, now they are investing serious consideration to which of the 17 SDGs they can best adopt for their businesses. "We've seen a distinct shift to rather than sustainability being an abstract concept to a set of principles that are more clearly defined, and more prevalent in our own businesses for our own reasons," he said.

Patrick Verhoeven, IAPH managing director of policy and strategy, made the point that the variety of the SDGs, which cover areas not traditionally seen as the

“If you compare the situation in Europe, the initial focus of a lot of port authorities was on environmental sustainability”

Bud Darr, *MSC executive vice-president for Maritime Policy and Government Affairs*

responsibility of the ports industry, such as reducing poverty, gender equality or inequality, as well as maritime-focused issues such as clean water and marine life, mean different things to different people. But how ports are looking at them has begun to change.

“If you compare the situation in Europe, the initial focus of a lot of port authorities was on environmental sustainability,” he said, because of a legacy of decades of regulations requiring ports to protect habitats and minimise environmental damage. “Now gradually you see that ports are moving much more towards community educational programmes, so the ports industry is seeing a similar evolution as in the shipping industry, where because both are global industries that are part of a wider supply chain, potentially all these 17 SDGs have relevance.”

Darr agreed that the focus of maritime industry is starting to shift beyond the environment, with human rights and social welfare becoming key issues, “I think that has started to shift dramatically, and the larger your enterprise is the more it starts to shift.” He attributes much of the driving force behind this to large customers such as shippers exerting pressure on their commercial partners. But perhaps even greater persuasion is coming from another key node in the maritime industry’s ecosystem: lenders. “They have started to focus much more on human rights and social welfare, so we have as well, irrespective of any changes to the legislative or regulatory framework,” Darr explained.

The step change in enthusiasm has been so dramatic that maritime industries are now not only looking to comply with environmental regulations, but also in many cases to exceed them. Darr noted that this requires careful consideration of what provides the best environmental return, citing an example from the cruise section of MSC’s business.

“We quickly eliminated certain single-use plastics off our entire fleet last year, such as plastic straws, and replaced them with biodegradable completely sustainable solutions. By the end of this month we will have removed all single-use plastics for which there is an alternative. There’s no regulation that said we had to do that, but we’re doing our part anyway.” Not only does this attitude boost the company’s sustainability efforts, but in some cases it has also allowed the company to reduce their costs as well.

“I think the most fertile ground [for action] is where you have an intersection of environmental

stewardship and economic positivity,” he noted. Examples of this abound in the maritime industry. Every owner wants to reduce costs by consuming less fuel, “and so, for example, if we can reduce the entire emissions profile, including greenhouse gases we’re consuming less fuel, and everybody wins when you can operate the ships more efficiently and reduce that entire emissions profile as it fits into the overall maritime commercial ecosystem”.

The emphasis on cost savings is a useful reminder that ports are ultimately businesses, and most will respond first and foremost to profits, or losses. It raises the question of whether they will be prepared to invest significant sums into sustainability in those instances when it does not result in cost savings, and what if any negative consequences this will have on them if they are not prepared to do so.

For Darr the answer is clear. “Those ports that are already inclined towards behaving sustainably will find our enthusiasm for these principles will make us a better business partner for them, and what they’re trying to accomplish locally.”

Does that mean that ports that ignore these values and efforts of carriers such as MSC will damage their relationships over the long term? “I think eventually that is inevitable,” he said. “If customers aren’t a good match business-wise, of which sustainability is becoming a more and more important factor, then ultimately that is likely to be a deteriorating relationship over time. I think sustainability is going to be one of those important factors where customers match up with the service provider whether it’s a port providing service to a carrier or a carrier providing service to a shipper.”

Verhoeven noted that with environmental legislation evolving quickly, ports and other maritime players have added incentive to get ahead of the game early. “You see now the International Maritime Organization [IMO] with its greenhouse gas strategy, which isn’t too concrete yet apart from a target, but clearly these measures are coming, and companies who are already anticipating or running in front of that of course will have an advantage.”

This should encourage industry players to invest in sustainability that goes beyond just the bare minimum. “For us this is very much the spirit of the environmental ship index [ESI] programme that we’ve been running, which rewards those companies that do better than the baseline,” he said, referencing the IAPH’s scheme that lists vessels that perform above IMO standards for emissions, enabling ports to offer incentive and reward schemes. Nearly 7,500 vessels are currently included in the scheme. “If you look at the growth we’ve had in the programme, when we started out in 2011 [there was] few ships in it – now there are thousands of ships in that database, which ports then can reward with whatever incentive they want to give. So clearly there is a positive evolution and I think we’ll see more of that.” **PH**

China prepares for integration

In Beijing's next major project after Belt and Road, China is targeting its southern provinces for economic integration, reports **Martina Li**

China has big plans for Hong Kong, Macau, and Guangdong. Dubbed the Greater Bay Area scheme, the region, which includes the cities of Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, and Zhaoqing, is to become linked together as an integrated economic and business hub, designed to rival the greatest economic clusters of the world.

Encompassing 56,000 km² and with a population of about 70 million, the Greater Bay Area certainly has the scale to take on international rivals. And as president Xi's major project after Belt and Road, it also forms a key part of China's overall strategic development.

"The construction of the Greater Bay Area is not only a new attempt to promote comprehensive liberalisation in the new era, but also to promote the 'one country, two systems' cause," China's State Council said. "This aims to give full play to the comprehensive advantages of Guangdong, Hong Kong, and Macau, deepen co-operation between the mainland and Hong Kong and Macau, and further enhance the support and leading role of the Greater Bay Area in national economic development."

China has already spent billions of dollars on infrastructure projects as part of the scheme, including the USD15 billion 55 km-long Hong Kong-Zhuhai-Macau bridge, featured on this month's cover of *P&H*, which is the world's longest sea crossing and was inaugurated by president Xi last year. With opportunities for growth abounding, ports are taking notice. Guangzhou Port Group began expanding its facilities and consolidating its ports in Guangdong province in 2018.

Last April, the Guangzhou provincial government issued a "three-year action plan for the construction of Guangzhou International Shipping Centre". This involves widening the Guangzhou Port Channel to enable two-way navigation for 10,000–15,000 teu container ships. After the completion of the project in around 2020, the 66.6 km waterway to the west of Weizhou Island outside the Pearl River Estuary in Nansha Port Area will be widened from the current 243 m to 385 m. The wider channel means that container ships can shave off three hours from the time needed to reach Nansha, a subport of Guangzhou.

The municipal governments of Guangzhou and Zhongshan have also signed an agreement to jointly develop ports and major infrastructure projects. The two parties will work together on the fourth phase of a container terminal in Nansha port, which is scheduled to be completed in the second half of 2020.

Dr Joyce Low, a senior lecturer with Singapore Management University's Lee Kong Chian School of Business, told *P&H* that while the Greater Bay Area scheme contains no explicit plan to expand the region's cargo ports, the blueprints do include a plan to improve the efficiency of goods movement.

This includes adopting new models of clearance procedures on the express rail and the Hong Kong-Zhuhai-Macau Bridge, which will improve the efficiency of transportation by rail, road, and sea. There are also plans to extend the Single E-lock Scheme that was jointly launched by Hong Kong customs and their mainland counterparts in March 2016 to all goods coming from the bay area cities, something that

**Co-operation
between Chinese
ports is set to
increase**

would facilitate logistics flow by allowing seamless clearance services. The Single E-lock Scheme uses single electronic lock and global positioning system (GPS) technology to monitor transhipments.

Li Lei, the principal of enterprise management and strategy at consultancy Roland Berger's Shanghai office, told *P&H* that in terms of container handling, the Greater Bay Area boasts three of the world's busiest ports, Shenzhen (Yantian), Guangzhou, and Hong Kong.

"From this perspective, in terms of sea ports, while the Greater Bay Area enjoys a competitive advantage that is hard to replicate, it also presents challenges in future development," Li said. "While the infrastructure for the movement of travellers in the region is well-developed, there is a wider distance between the ports. This has already resulted in considerable overlaps, and there is obvious competition for cargoes between the ports."

"Economic growth will change gradually with the development of Greater Bay Area. Along with the transformation of industry in the area, the ports will become increasingly competitive, with Guangzhou, Shenzhen, and Hong Kong facing demands to improve their service and efficiency." Drewry's senior analyst for ports and terminals, Neil Davidson, believes that the Greater Bay Area reflects Beijing's desire to have macro-level economic co-operation, alongside company and business-level consolidation, such as that seen in the ports. But it remains to be seen if the scheme will lead to higher exports.

"The level of exports is determined by numerous macro-economic factors, such as the scale of manufacturing and industrial production, China's

competitiveness on the global stage, global consumer demand, and issues such as tariffs," said Davidson. "So the Greater Bay Area would only impact the level of exports through the region's ports if it has a positive influence on the above factors."

While Hong Kong's throughput has been in gradual decline as Chinese ports have been on the ascent, Dr Low said that the Greater Bay Area blueprint has proposed the development of high-end maritime services such as ship management and leasing, ship finance, marine insurance, maritime law, and dispute resolution services in Hong Kong.

"By providing these high-end services to enterprises on the mainland and in Macau, Hong Kong will be able to reinforce its status as an international maritime centre. Building upon the network effects, the intended increase in the overall capacity of international shipping services of Guangzhou and Shenzhen via expansion of the service capacity of infrastructural facilities in ports and fairways will form a complementary and mutually beneficial system of port, shipping, logistics, and ancillary services with Hong Kong, and strengthen the port cluster's overall international competitiveness," said Dr Low.

"In addition, the plan will also identify new areas of growth for Hong Kong and foster the diversified development of its economy and industries locally and overseas. As such, the benefits are likely to come from both the port and non-maritime sphere. Hong Kong, being positioned as an international transit port in the Greater Bay Area, can continue to develop free trade policies," Li concluded. **PH**



Qingdao Port Group: 51102905

Shandong ports race to meet oil and LNG import demand

As it races to ensure energy security, China is upgrading its tanker facilities. **Martina Li** reports

As China's economy has boomed, so has its voracious appetite for crude and natural gas. The resulting rise in imports is pushing an expansion of port capacity in Shandong province, with new terminals under construction in the cities of Qingdao, Rizhao, and Yantai.

Qingdao, China's largest oil port, has begun building its second crude oil terminal in its Dongjiakou subport. Presently, Qingdao, which handles 16–18% of China's crude oil imports, has a dozen crude oil tanker berths, two pipelines, and storage capacity of about 17.32 million m³. The port serves as the largest oil transport, transfer, and storage base in coastal China

and ranks first in the country for amount of crude oil loaded and unloaded.

Scheduled for completion by the end of 2019, the second terminal will take Dongjiakou's annual oil handling capacity to 50 million tonnes of crude oil, equivalent to 166 very large crude carriers (VLCCs).

Qingdao Port Group president Li Fengli said, "The hydraulic structure of the new oil wharf is designed to berth 450,000 dwt oil tankers. In addition, a water transfer terminal with a hydraulic structure designed to dock 120,000 dwt crude oil carriers will also be constructed." Liu Jin, general manager of Qingdao Port subsidiary, Qingdao Shihua Crude Oil Terminal, said that in recent years the port has been improving infrastructure to create a tanker expressway.

"We want to provide truly door-to-door crude oil logistics to the refining industry in Shandong that is low-cost, efficient, safe, and environment friendly,"

As China pushes on towards a lower-emission economy, its demand for gas and LNG has grown significantly

Nicholas Browne, *Wood Mackenzie research director*

said Liu. Shandong province is the base of many of China's independent or "teapot" refineries, which in 2015 were freed to directly procure imported crude. To better serve the refineries, Qingdao has expanded its crude pipeline further to Dongying, Shandong province's refining hub.

Construction of the pipeline's third phase has also started. Once completed, the network will be able to transmit about 30 million tonnes of crude oil yearly, while its total storage capacity will reach 5.46 million m³.

In addition, new ancillary tanks in Guangrao County were opened on 27 December 2018 following 16 months of construction. Catering to refineries in the cities of Weifang, Dongying, and Binzhou, the tanks will bring additional cost savings.

Qingdao port's upgrades coincide with Brazilian oil company Petrobras' agreement to lease four 100,000 m³ crude oil tanks from Qingdao Shihua Crude Oil Terminal, its joint venture with Sinopec Kantons, a unit of Chinese state-controlled refiner Sinopec. The long-term agreement was signed in December 2018, although Qingdao port did not disclose the exact duration.

Qingdao port said, "We will be running a 'crude supermarket' with Petrobras based on the lease deal. Refineries in Shandong province [where Qingdao is located] can purchase crude on a real-time basis via a pipeline according to their demand. The purchasing lead time can be significantly reduced as a result, as well as pricing risks related to foreign exchange rates and crude prices."

PetroChina Fuel Oil, a subsidiary of Chinese state-owned oil refiner PetroChina and Yantai Port Group, will jointly invest about CNY5 billion (USD737 million) to expand a crude oil terminal at Yantai to accommodate 300,000 dwt VLCCs, as well as increase crude storage. The group will also build the second phase of Yantai-Zibo (also known as Yanzi) crude oil pipeline in Shandong.

The first phase of Yanzi crude oil pipeline, which was started up in the end of 2016, is also operated by China National Offshore Oil Corporation (CNOOC) and Yantai Port Group. The 450 km pipeline, which can transport 20 million tonnes of crude oil annually, links Yantai port with local refineries in Dongying, Zibo, and Binzhou cities in Shandong province.

Shandong Dongming Petrochemical Group, China's largest "teapot" refiner, is also investing in port infrastructure. The refiner has formed a joint venture, Rizhao Port Minggang Crude Oil Terminal with Rizhao

Port Group and Shandong Transportation Industry Fund, to build and operate a new VLCC berth in Rizhao. The new facility, scheduled for completion in 2020, will be the fourth VLCC berth in Rizhao and will cost CNY820 million to build. With annual handling capacity of 18 million tonnes, the new facility will raise Rizhao's crude oil handling capacity to 100 million tonnes a year.

Italian shipbroker Banchero Costa noted that China imported about 465 million tonnes of crude oil in 2018, nearly 11% more than in 2017. During the last decade, China's crude oil imports have doubled because of declining domestic output, the building of strategic petroleum reserves and commercial stockpiles, and continued strong demand from local refiners.

"While total crude imports have increased significantly, volumes from the traditionally largest supplier – Saudi Arabia – have stalled in recent years. Instead, as China diversifies its supplies to ensure supply security and optimisation, there have been large increases in crude oil imports from Russia, Angola, Iraq, and Brazil," Banchero Costa said.

China has also been expanding its liquefied natural gas (LNG) import infrastructure as it looks to increase the ratio of natural gas in its energy mix to combat pollution. On 9 January 2019, two subsidiaries of Chinese state-owned oil and gas group PetroChina signed contracts with Yantai Port Group to jointly build a new LNG receiving terminal and expand a crude oil terminal.

Kunlun Energy, PetroChina's Hong Kong-listed subsidiary, and Yantai Port Group will jointly invest a total of about CNY7 billion to build an LNG receiving terminal that will have four 200,000 m³ LNG storage tanks on the western section of Yantai port, and a dock capable of receiving 266,000 m³ LNG carriers.

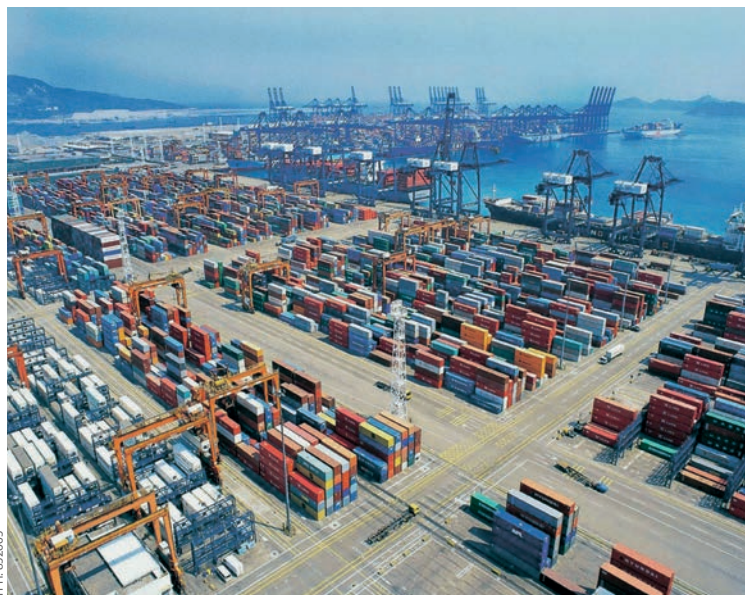
Kunlun Energy currently runs three major LNG receiving terminals and a small LNG reserve storage in Rudong in eastern Jiangsu province, Tangshan in northern Hebei province, Dalian in northeastern Liaoning province, and Hainan island, with annual LNG receiving capacity of about 19.3 million tonnes.

Kunlun Energy is also in the process of expanding the LNG receiving terminals in Tangshan and Rudong and this is expected to be completed by 2020, according to a company representative. In 2017, China replaced South Korea as the world's second-largest LNG importer, importing 38.1 million tonnes of the fuel that year.

Wood Mackenzie Research Director Nicholas Browne noted that while the US-China trade war has resulted in China imposing retaliatory tariffs on US LNG imports, the East Asian country has been turning more to Australia and the Middle East for its supplies. In September 2018, PetroChina signed an LNG import deal with Qatargas to import 3.4 million tonnes of LNG annually for 22 years.

"As China pushes on towards a lower-emission economy, its demand for gas and LNG has grown significantly and we expect the trend to continue in the longer term," said Browne. **PH**

The groundbreaking ceremony for a new crude oil terminal in Qingdao, China



YPH 852665

China's projects work in tandem

Although officially China's two vast trade-related infrastructure projects – the Greater Bay Area and Belt and Road – are unconnected, the similarities between them are myriad. **Martina Li** reports

Guangzhou's ports are central to China's trade plans

Anounced by Chinese President Xi Jinping in 2013, Belt and Road involves infrastructure development across Asia, Europe, the Middle East, South America, and Africa, to smooth the flow of goods to and from China, although critics have argued that it is a way for China to spread its economic dominance worldwide.

Greater Bay Area cities are integral to Belt and Road, which has seen Guangdong province consolidate and upgrade its ports, especially Guangzhou, Nansha, and Shenzhen, to combine its traditional advantage as a trade centre with the opportunities presented

“Guangdong enterprises have obvious technological superiority”

Hu Yuming, professor at Jinan University

by the initiative. Nansha is set to play a crucial role in both schemes, with the Nansha Pilot Free Trade Zone facilitating transshipments. Nansha processed 15.57 million teu of containers in 2018, accounting for almost 71% of Guangzhou's entire throughput.

Besides the ports and logistics sectors, Guangdong province is also pushing for collaborations with China's Belt and Road partners in sectors such as energy, tourism, and finance.

Since 2015, China's Belt and Road Big Data Report has ranked Guangdong first in terms of participation in the development plan. Guangdong is also home to Hong Kong-Zhuhai-Macau Bridge, featured on this month's cover, which is the largest sea bridge in the world and was designed to improve connections between Greater Bay Area cities, opened in 2018.

Professor Hu Yuming at Jinan University's School of Management and the main author of the report *Guangdong enterprises along the Belt and Road*, wrote that companies from Guangdong have significant technological advantages over many other regions along the initiative's routes.

“Guangdong enterprises have obvious technological superiority in building energy, ports, and communication infrastructure,” wrote Hu. “These advantages can help our enterprises during the infrastructure tender process in Belt and Road countries.”

Given Guangdong's active Belt and Road participation, the Greater Bay Area can be seen as an extension of the province's role in the scheme.

The Blue Book on Guangdong's participation in the Belt and Road initiative, published by Sun Yat-sen University in Guangzhou, calls for the province to work with Hong Kong and Macau to participate in Belt and Road projects through the Greater Bay Area's simultaneous development.

Dr Joyce Low, a senior lecturer (operations management) at Singapore Management University's Lee Kong Chian School of Business, explained that the Greater Bay Area can supplement the Belt and Road by opening up the economies within its radius.

“With the Greater Bay Area, Hong Kong and Macau are respectively, an influential international transport and logistics hub and an international cultural exchange centre,” she told *P&H*.

“These cities play important roles in the opening up of China and enhancing the development of an open economy in the nine Pearl River Delta municipalities by connecting the domestic and international markets and resources, participating in international economic co-operation, and competing at a more strategic level.” She noted that goals and directions in the Greater Bay Area plan, such as those surrounding the improving of infrastructure and building of a globally competitive commerce and industrial system, ensuring energy security, and providing support for China's international trade strategy tally with the country's Belt and Road initiative. **RH**

Ports cool on scrubbers

Scrubbers form a key facet in shipowners plans for IMO 2020, but that relies upon the co-operation of ports. **Charlie Bartlett** reports

Many shipowners who opted for exhaust gas cleaning systems, known as scrubbers, to comply with the International Maritime Organization's (IMO's) 2020 sulphur cap thought they were getting ahead of the game. Yet many those vessels are now facing unforeseen backlash against open-loop systems.

Such devices rinse sulphur from ship exhausts, treat it to neutralise the acidity, and dump it over the side. But concerns about the discharge of wastewater have created a controversy around the technology that has seen action taken in several ports and jurisdictions.

Singapore has banned discharge of washwater from open-loop scrubbers, while whole or partial bans are in place in Belgium, Germany, India, Ireland, Latvia, Lithuania, Norway, and the UAE, as well as the US states of California, Connecticut, and Hawaii, and various Emission Control Area (ECA) zones in China. Many individual ports have enacted bans in their waters, citing environmental concerns, with more action expected to be taken as 2020 approaches.

Closed-loop scrubbers perform the same function

as open-loop, but instead of ditching the sulphate over the side they circulate the seawater into a water treatment unit to separate it off from the resulting muck – pumped into a sludge tank – before discharge.

Closed-loop installations must be offloaded at ports. The Maritime and Port Authority of Singapore (MPA) has indicated that it will take a proactive approach to allow owners to use closed-loop scrubber systems there. In a keynote speech, then chief executive Andrew Tan, who stepped down from the role at the end of 2018, said, "Ships fitted with hybrid scrubbers will be required to switch to the closed-loop mode of operation. Singapore, as a party to MARPOL Annex VI, will be providing reception facilities for the collection of residues generated from the operation of scrubbers."

Ports must be capable of handling sludge from closed-loop scrubber systems, which will most likely come to be just another task for port agents. Christopher Fee, Oldendorff Carriers GM of Environment and Sustainability Fleet Management and executive committee member of the Clean Shipping Alliance (CSA 2020), explained, "No sludge is generated by pure open-loop scrubber systems, only from pure closed-loop or hybrid systems. For vessels fitted with the latter, they would need to ensure the ports they visit offer appropriate and recognised shore reception facilities."

"Much of the infrastructure and applicable procedures are already in place for safely handling, accepting and disposing of other MARPOL wastes, so it is likely that these new MARPOL Annex VI wastes simply become another typical service offered by ports to their clients."

So, are ports and jurisdictions protecting the environment by banning open-loop scrubbers? Not necessarily, said CSA 2020, which argues that sulphates from open-loop scrubbers are already ubiquitous in seawater and are effectively harmless.

"Those very few ports which have restricted washwater discharge from open-loop scrubbers have done so either purely precautionarily, or due to public perception, not because any study has proven a risk exists," argued Fee.

"We believe that the underlying scientific evidence speaks for itself, and once the results of more independent studies have been released showing that there are no short- or long-term negative effects, these competent authorities are likely to not only reverse their respective positions, but also begin to welcome the use of the technology."

They cited a 2012 report by the Danish Ministry of Environment, a 2016 DNVGL study, or a recent report from the Japanese Ministry of Land, Infrastructure, Transport, and Tourism, all of which "conclude that no risks to the marine ecosystem or human health are foreseen from scrubbers".

Regardless, the use of open-loop scrubbers looks to be highly restricted in many of the world's ports in the initial stages of the sulphur cap, although owners will still be able to use them in international waters. **PH**

A 127-tonne flue-gas scrubber tower being prepared for installation





Port of Hamburg: 5039409

Hamburg aims for regional heavyweight

Capacity restrictions have seen the port of Hamburg lag behind its larger regional competitors, but a deepening of the Elbe river could change this.

Charlie Bartlett reports

Dredging the Elbe river should boost Hamburg's competitiveness

For generations, ports across the coast of the North Sea have jostled for dominance of the container-handling trade. Rotterdam and Antwerp currently hold the largest handling volumes, but this is thanks to a limitation that has hamstrung their neighbour, the port of Hamburg.

Hamburg has many major advantages. Via its container terminal Burchardkai (CTB), it is served by one of the best rail networks in the northern hemisphere, carrying cargoes efficiently into the hinterland, an activity that has doubled by volume in the past decade. It also offers customers a handy gateway to the Baltic, massively trimming voyages around Denmark and Sweden's Skagerak and Kattegat sea areas, which comprise many kilometres of tough 0.1% sulphur Emission Control Area (ECA) zones.

Hamburg therefore expected, like its neighbours, to

grow and improve capacity in line with cargo growth. However, it has not been that simple. The Elbe river, the 80km channel approaching the port, is shallow in many places. In the past few years it has struggled to accommodate a flurry of large vessels, with the problems cascading down to smaller trades. Vessels must only make their approach and departure during high tide; almost all of them require complex and costly pilotage to navigate the river; and many of them must also decrease the volume of cargo they carry to meet the port's draught requirements.

Worse, thanks to the river's narrowest area – a vast 7km stretch of the lower Elbe between Wedel and Wittenbergen known as the “encounter box” – the maximum combined beam of vessels travelling toward and away from the port is 90m. That is a punitive bottleneck in a part of the world where vessels of a beam

over 45 m and 330 m in length, known to Hamburg as large vessels, are now commonplace, making up some 1,000 annual ship calls at Hamburg versus 600 in 2008.

This provides a major incentive for carriers to call elsewhere, and a loss of cargo volumes to Hamburg's competitors has indeed been observable. In 2017, container volume was down 1% at Hamburg, while neighbouring Rotterdam and Antwerp saw 10% and 4% rises. Meanwhile, in the first half (H1) of 2018, year-on-year container volumes were down again, by 2.7%, while Rotterdam increased by 5.9% in the same period, and Antwerp saw 8.3%.

At the time of the H1 findings, Axel Mattern, Joint CEO of Port of Hamburg Marketing, said that the decrease could be explained by a lack of empty boxes.

"Against the background of the still-outstanding adjustment of the fairway on the lower and outer Elbe, it is understandable that shipping companies should utilise slot capacities on mega-containerships calling at Hamburg primarily for loaded boxes," he said.

However, the port was also losing out on transshipment cargo, which "unlike cargo bound for the local region and loaded boxes, is less tied to specific ports. We therefore hope that planning permission will be granted before the end of the year, and the fairway adjustment finally [be] implemented after a wait of 17 years".

With its market share in decline, Hamburg is desperate to claw back its volumes by mitigating the one issue holding back the otherwise well-placed, and equipped port: the depth of the River Elbe.

Terminals and other port facilities are well prepared for growth. Increased draft on the Elbe and simplification of manoeuvring by the construction of a passing zone on the Elbe downstream from Hamburg will facilitate more efficient use of hold capacities, and crucially simplify passing for ultra-large vessels. However, this has been proven far from simple. The Germans have a strong environmental and ecological conscience, and campaign groups such as Friends of the Earth Germany (BUND) and Nature and Biodiversity Conservation Union Germany (NABU) have, for more than a decade, worked to stop any dredging from occurring on the grounds that will cause habitat loss for wildlife along the river, as well as irreparably alter its ecosystem.

In February 2018, the German High Court ruled that dredging could take place in principle, but only if certain environmental criteria were met. This would involve not dumping large amounts of dredged material onto environmentally sensitive wetlands.

The decision was a win for Hamburg in one sense. At the time of the announcement, corporate association of Hamburg port president Gunther Bonz celebrated the potential that Germany's largest port could "still play in league division one" – referring to competition from Rotterdam and Antwerp. In another respect, however, the ruling marked yet another year of limbo for the port.

Consequently, in December 2018, another ruling was made that the port of Hamburg could move ahead with the dredging project immediately. A tendering process for the project began, and within 10 days it emerged that Royal Boskalis Westminster NV had submitted the lowest price for the EUR200 million (USD226 million) tender.

In a separate move, WSA Cuxhaven awarded the first EUR9.5 million contract to Heuvelman Ibis, a waterway engineering specialist, to begin construction on the Medemrinne, an underwater trough area near the mouth of the Elbe, used to dump the dredged material, away from the various sensitive nature reserves all along the river and its Stör tributary. The area would be protected by a central dam, and Van den Herik has been contracted to construct the structure.

"The first contracts for implementing the fairway adjustment are now being awarded according to plan. This is a good starting signal," said Dr Hans-Heinrich Witte, president of the Federal Waterways and Shipping Authority. "Both disposal sites are needed to accommodate the quantity of dredged material from the widening and deepening."

When it does commence, the operation will be massive. Adding an average 2.4 m of depth along the 80 km stretch of river, the works would enable vessels to call with 1,800 teu more than they can carry.

However, much more significant is the 20 m of widening works along the Wedel-Wittenbergen encounter box, which will enable ultra-large vessels – of at least 10,000 teu – to pass by one another on the way in and out of the port. The port now calculates that, following the dredging operation and widening of the passing box, 2,800 vessels of 10,000 teu and higher could then reach the port of Hamburg, more than twice as many as presently, bringing the port well into the big leagues and doing away with the limitations it has dealt.

Assuming the work goes as planned, completion is scheduled for 2020, in line with a project to add two new siding tracks to the port's Burchardkai rail terminal, enabling cargo loading from there. Work to add two additional tracks to the terminal was completed in early January. Having earmarked EUR450 million for the container segment and EUR350 million on the intermodal segment by 2022, operator Hamburger Hafen und Logistik AG (HHLA) has signalled its confidence in the port's future.

HHLA executive board member Jens Hansen said, "The numerous high-frequency rail connections give the port of Hamburg a clear advantage against other European ports. We believe rail connections will increase considerably from 2020 through the improved transport connections of CTB, and we are already perfectly prepared for this."

However, even after 17 years of wrangling, the possibility of legal challenges to the dredging is not entirely ruled out, the port's environmental opponents are unlikely to give up without a fight. **RH**



David Hooper: 20111

European ports brace for Brexit

Technology looks set to be the main weapon in European facilities' efforts to smooth any problems created by the UK's departure from the European Union. **Jon Guy** reports

Almost 70–80% of traffic at Germany's Cuxhaven would be impacted by new UK customs checks

As the UK government struggles to find any consensus on the country's withdrawal agreement and future trading relationship with Europe, a no-deal scenario is very much still a possibility.

European ports have not been idle over the past two years, and the potential for disruption increasingly looks to be residing with the customs and regulatory authorities, rather than the ports themselves.

The secretary-general of the European Sea Ports Association, Isabelle Ryckbost, told *P&H*, "We are still unclear as to what will happen. In terms of the European

Union side most of the ports have prepared as much as they can and continue to do so."

Those plans have included the creation of data platforms and port community systems to speed the delivery of data and certification to ensure that cargoes have the correct documentation when they arrive at the port gates. This includes the ability to register for the necessary permissions online to enable firms to register cargo and any tariffs more efficiently.

There are concerns over the issue of lorries being delayed as they seek to access vessels and ports if they have no documentation.

"We have seen ports creating new parking areas," explained Ryckbost. "The aim is to have areas where haulage firms who do not have the right documentation can be parked while they obtain what is required. This is to ensure they are not holding up those with the right documentation in the line to access the port."

"The European Union has made it clear that under a no deal scenario imports and exports to and from the UK will be treated as any other third country, with no favourable regime for the UK," she explained. "As such it is the health and customs checks that are a concern as it is a case whether there are the necessary facilities and staff trained to carry out the checks available."

Of particular concern is the ability for EU ports to cope with the current levels of food exports from the UK. Fears have been raised over the number of Border Inspection Posts attached to EU ports that have the ability to carry out the sanitary and phytosanitary checks on food produce, especially given current staffing levels.

There are fears that the backlog could be such that UK exports of food produce may simply become unsustainable for some businesses unless the feared backlogs fail to materialise.

However, ports have been investing heavily in new systems and facilities, and Ryckbost believes they are now adequately prepared for Brexit's impact on the shipping sector.

"The UK authorities have visited Zeebrugge to meet with port operators and discuss what Brexit will mean from the UK side and what can be expected," explained Ryckbost. "Ports are concerned that the smaller companies will not be as prepared as their larger peers in terms of understanding what they will need to move goods to and from the UK after Brexit."

"There is a belief that the immediate aftermath of the UK's departure will see some disruption but the hope is that those issues will be solved quickly." Yet ports remain confident they will be able to cope.

Head of the Calais and Boulogne Port Authority, Puissesseau said, "We will definitely be ready for Brexit whenever it happens."

"Yes there will be more controls after Brexit. The only thing lorries will need is additional documentation. We have prepared if they have to stop then we have created 200 additional parking spaces in the port."

**Under a no-deal
Brexit, Dublin
port could
struggle to cope**



Irish Maritime Development Office: 460561

He added, "We should not be afraid of Brexit. For the hauliers, the only difference is having e-declarations before they leave the country. When they are on the ferry, they will know whether they are going to leave via the green or the orange channel.

"More than 90% of them will be in the green channel, with nothing to declare, no controls, and we don't think they will face any delays."

Puissesseau said the port authority has invested EUR6 million (USD6.8 million) in new facilities in an effort to be prepared for a no-deal scenario.

As a major port for traffic to the UK as well as for the international fishing industry, the German port of Cuxhaven warned it is expected to be "strongly affected" by the UK's withdrawal from the European Union.

In a statement the port said, "Great Britain is the fifth most important trading partner for the German economy, so imports and exports would be considerably impaired by the introduction of customs clearance procedures.

"Like many companies and organisations, the Cuxhaven business community has already been dealing with the possible effects of the Brexit in the long term. Among other things, the processes required for customs clearance were developed in consultation with shipping companies, terminal operators, freight forwarders, shippers, and customs.

"The employees of the companies are prepared for new requirements through training and special qualifications. New IT systems for terminal management and electronic interfaces to customs systems are also being introduced."

Cuxhaven Port Association Chairman Hans-Peter Zint confirmed that, like many German companies, the port is preparing for a "chaotic Brexit".

"We are currently assuming the worst case scenario and preparing our processes and transports for the UK's withdrawal from the EU customs union and the internal market without an agreement. Nevertheless, we want

to do everything we can to ensure that this does not happen," he added.

In Ireland, Dublin has been working to build new bridges with European ports such as Zeebrugge, as it gears up for an expected influx on trade if the only tariff free access to the UK is via the republic's border with Northern Ireland.

Indeed, EU ports have been busy working alongside each other to develop new access to shipping firms for new routes to move goods around the continent and beyond in the post Brexit environment. There has been an expectation that there will be demand for new routes in the future, and European ports have been looking at how these new routes will boost trade.

However, while work to increase throughput continues, the Irish government has been keen to ensure that any burden of renewed trade can be accommodated in the short term.

The Irish Ministry for Transport has also drawn up plans to utilise other ports, including those on the west coast of the country, to take vessels if Dublin is unable to meet demand.

Under the Department of Transport's recently published briefing papers, the ports of Rosslare Europort and the port of Cork at Ringaskiddy are set in to take ro-ro lorry traffic from Dublin port. Dublin handles more than 85% of the country's road freight, and fears are that a no deal scenario would require alternative access ports for the country.

Brendan Keating, Port of Cork chief executive, has publicly stated the port has the capability to handle a ferry service to the UK, with the likely destinations either Fishguard, Swansea, or Bristol.

"All we can do is plan for the worst scenario and, in that context, if a hard Brexit comes to pass we can step up to the plate and facilitate an additional service or two," he said. Brexit news breaks daily, yet nothing has changed. The UK still lacks a deal and is facing a deadline soon. **PH**



Damir Cornelissen 952777

Rotterdam looks to digital solution

As Brexit approaches, the largest port in Europe is making sure it is prepared for every eventuality.

Jon Guy reports

Trucks load on to a vessel at Port of Rotterdam

With political wrangling still taking place, the Port of Rotterdam Authority has said it is as prepared as it possibly can be for any outcome over the UK's departure from the European Union (EU). The port has put in place a series of arrangements, but believes success or failure will depend on the use of the port's electronic systems, as well as close co-operation with the Dutch government and authorities.

Of the approximately 54 million tonnes of freight that is traded annually between the UK and the Netherlands, about 40 million tonnes pass through the port of Rotterdam, and in particular via ferry and shortsea crossings. As soon as Brexit becomes a reality, the Dutch seaports will form an outer border between the EU and the UK.

Over the past two years the port authority has been working on a range of contingencies to ensure that traffic and cargo are able to move quickly and smoothly through the port.

Key to achieving that aim has been the further

development of Portbase, the port's electronic communication system for all stakeholders, including shipping firms, haulage firms, and the port authority.

The Port Authority, the Municipality of Rotterdam, and highways authority Rijkswaterstaat (Directorate-General for Public Works and Water Management) are advising exporters, hauliers, and shippers to use Portbase to provide digital notification of their cargo that is destined for the UK.

Portbase is a Dutch supply chain solution for Brexit, and the port says the use of the system will mean cargo can pass quickly and without unnecessary delay through customs to and from the UK, even after Brexit.

However, the port said it understood that despite its best efforts there will be those who have failed to complete the correct paperwork before berthing or arriving at the port.

As part of the preparations, the Port of Rotterdam Authority and the ferry terminals in Rotterdam jointly arranged for a simulation study to be conducted into the effects of Brexit on the processing of freight traffic.

Given historical data, it was assumed that approximately 400 trucks per day will not have their formalities in order. The results of the study estimate that 700 temporary buffer parking places for heavy goods vehicles will be necessary to ensure they can all be accommodated at any one time.

The port has been working with Dutch customs authorities to examine the requirements should there be a no-deal Brexit. Customs authorities estimate that should this happen the port will require up to 900 new staff to meet demand and enable a smooth movement of cargo and persons through the port. Of that figure 500 have already been recruited and 300 have also been fully trained for their new roles.

Spokesperson for Port of Rotterdam COO Ronald Paul and CFO Paul Smits, Leon Willems, told *P&H*, "Port of Rotterdam feels it is as well prepared as we can be. We have adapted our port community system Portbase to accommodate UK-EU cargo shipping via ferry and shortsea.

"With that we have a working digital solution to allow for swift and efficient cargo processing, also after Brexit. We have executed a desktop simulation for all ferry terminals operating in Port of Rotterdam to better anticipate the Brexit impact on truck traffic, both on the terminal premises and near the terminals."

Based on this simulation, he explained that the port had established contingency truck parking where truck drivers can put their paperwork in order, with the country's road authority having prepared traffic circulation plans.

"Port of Rotterdam, Dutch Customs, and others have distributed flyers to encourage transport companies and exporters to prepare for Brexit. Notwithstanding these preparations, we urge all parties in the logistic chain to sign up to Portbase as this is the only way we can minimise the Brexit impact," he said. **PH**



Introducing the new Dredging and Port Construction website

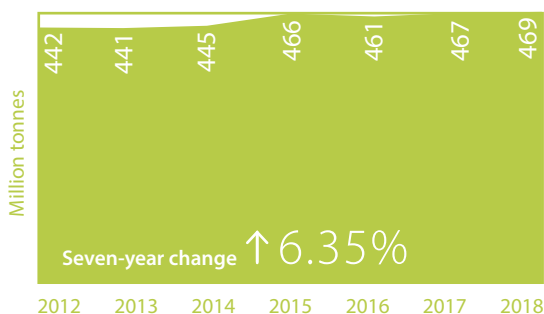
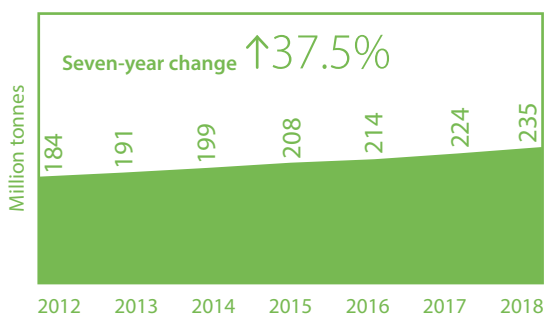
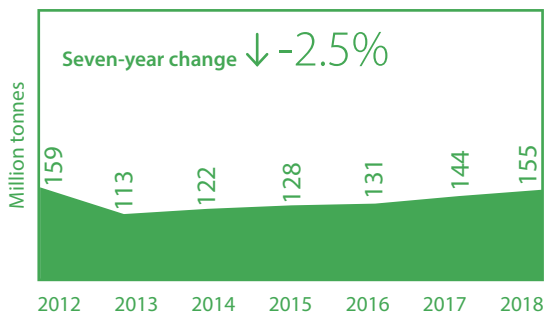
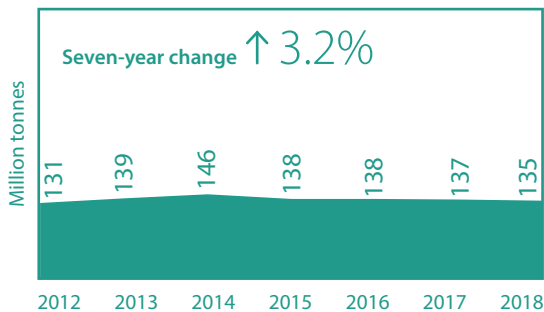
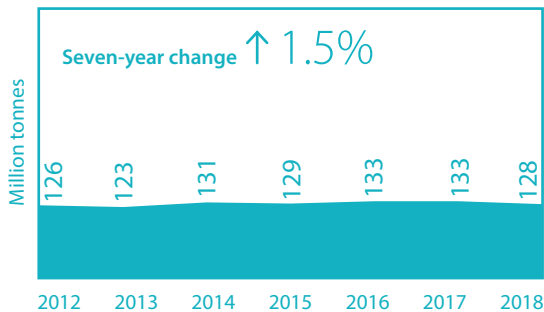
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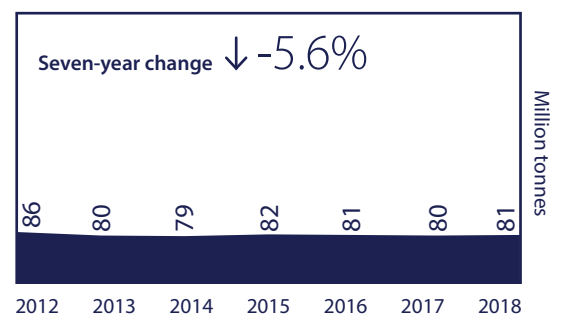
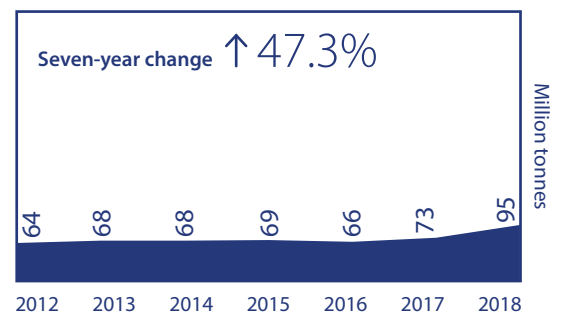
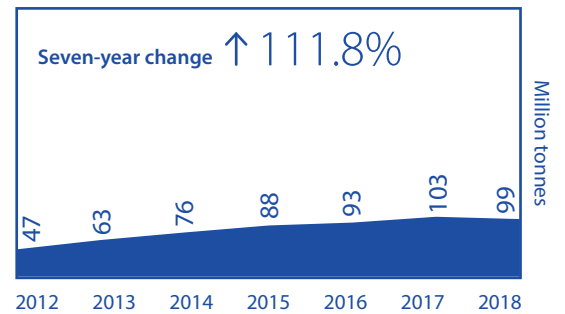
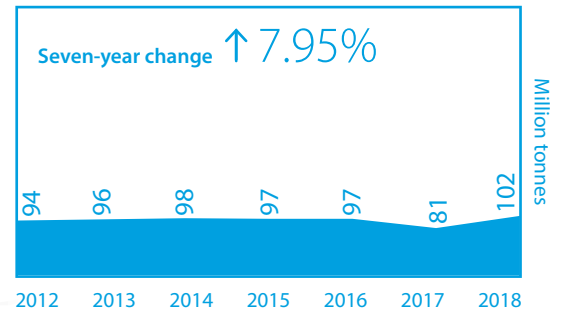
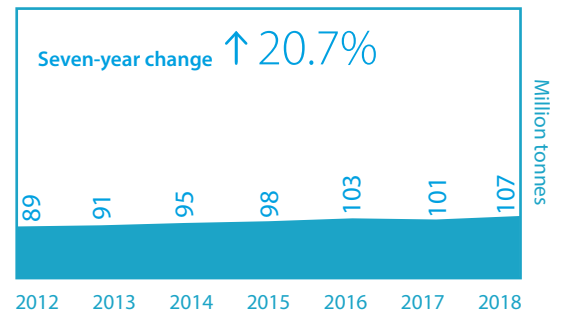
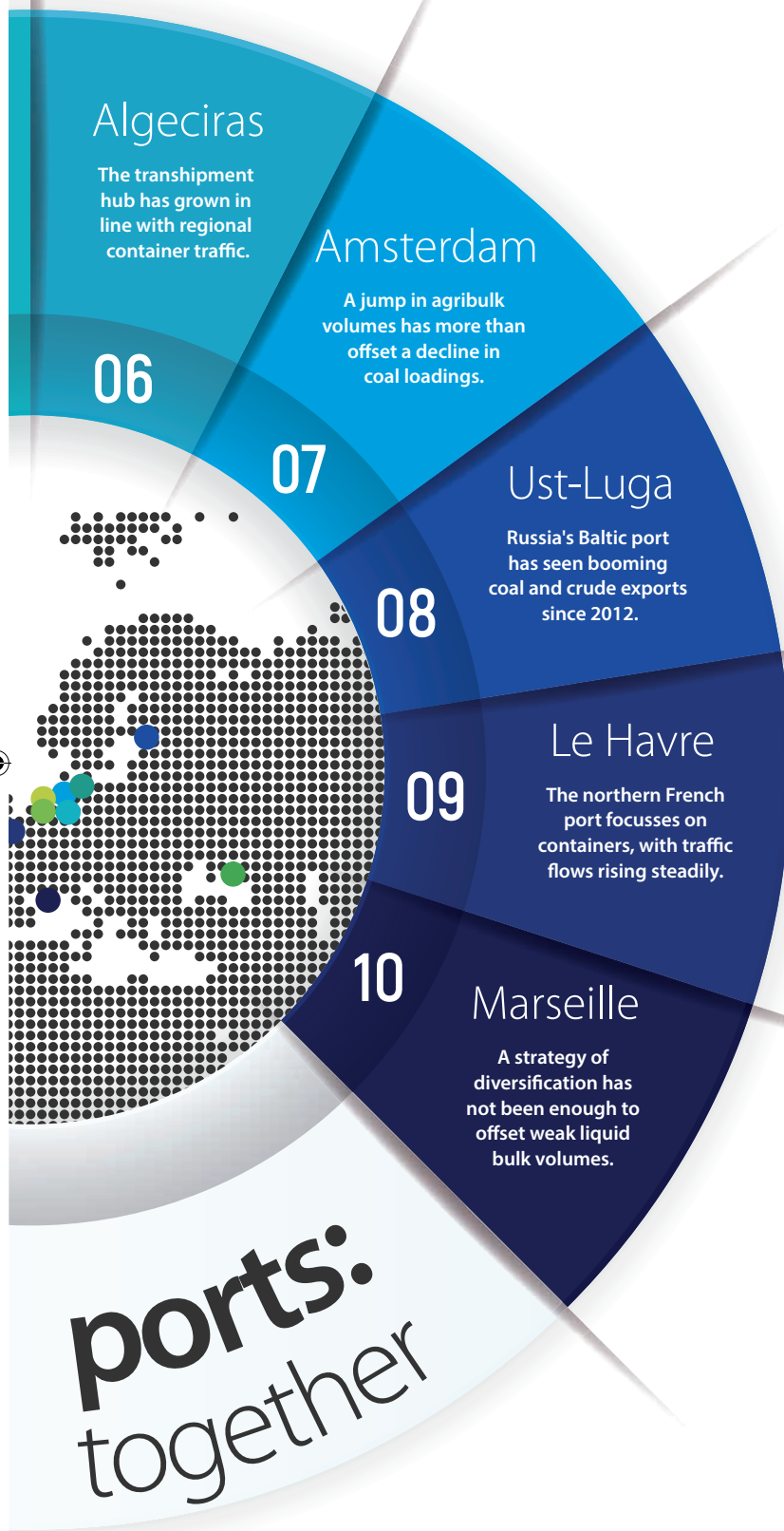


dredgingandports.com





Europe's largest ports have seen moderate expansion in recent years, helped by gains in container traffic



Note: all volumes displayed in metric tonnes
Source: IHS Markit – Ports and Terminals © 2019 IHS Markit/Shutterstock: 5100739



Vladimir Trofimov: 5050855

Ukraine eyes larger share of Asia cargo

Containerised trade between Asia and Ukraine is booming, spurred on by customs reforms, a crackdown on corruption, and convenient transport into Europe, reports **Eugene Gerden**

Journey times to Odessa from Asia give the port an advantage over Russian rivals

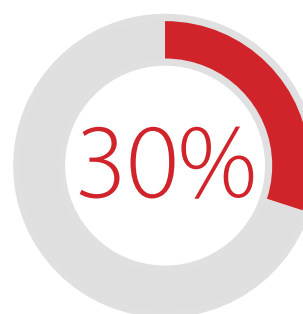
According to data from the Administration of the Ukrainian Seaports (AMPU), Ukrainian ports' cargo traffic surge by 19% year over year to 846,485 teu in 2018, with imports rising 22% and exports up by 13%. Odessa continued to be the most utilised port in the country, handling 70.7% of all containerised cargo, followed by Yuzhny seaport at 14.7%. Seaports in Ukraine are working to grab an even larger share of containerised cargo moving to the EU from Asia.

This was the fastest growth rate since 2014, according to Ukrainian freight forwarder Marine Container Service, and reflects an ongoing recovery from the country's recent economic troubles. Growth has also outstripped that of ports in Russia, which saw

volume increase 9.8% to 5.08 million teu. Container throughput at Novorossiysk, Russia's major seaport on the Black Sea and the primary competitor to Ukrainian ports in the region, increased 2.5% to 754,890 teu last year, while traffic at St Petersburg, the country's largest container gateway by volume, increased 11% to 2.13 million teu.

Igor Tkachuk, director of the Odessa branch of AMPU, said last year that intra-country port competition had increased significantly, as evidenced by the relocation of Maersk Line's ME3 service, which connects the Middle East and Indian subcontinent with ports in the western Mediterranean and Black Sea, from the port of Odessa to Yuzhny. According to AMPU figures, Maersk

The seaborne distance in kilometres from Shanghai to



According to AMPU figures, Maersk accounts for roughly 30% of all container traffic to and from Ukraine

accounts for approximately 30% of all container traffic to and from Ukraine.

With domestic container terminals making further investments, the quality of services provided to shippers is expected to increase, according to the Ukrainian Container Line Association. It expects cargo growth to continue to rise in 2019, although it could still be held back by certain negative external factors such as a lack of investment in ageing or inadequate infrastructure.

A key factor contributing to expanding volume growth is a package of reforms instituted in 2016–17, designed to increase the ease of complying with the country's customs operations. The drive has seen cargo clearance times fall to between one and two hours compared with three to four hours at Russian ports, according to the Ukrainian Ministry of Transport and Communication. These reforms include a simplification of customs procedures, a reduction in the overall number of inspections, the implementation of a programme to hold inspectors accountable for inspections deemed unfounded, and the removal of a previous requirement that all documents provided to Ukrainian customs in English be translated into Ukrainian or Russian.

Ports in Ukraine are also expected to benefit from a recent crackdown on corruption from the Ukrainian government – which primarily happens in the form of bribes given to customs officers to speed clearance – as well as continued implementation of further customs reforms.

Another key advantage of Ukraine's ports over regional competitors is their location, especially to shippers looking to move goods from Asia to the EU.

The distance between Shanghai and Odessa, for example, is 13,510km by sea, more than 4,828km shorter than the distance to St Petersburg (18,398km). Odessa is also close to the borders of several central European countries, making it particularly attractive for shippers moving goods to locations such as Bulgaria, Romania, and Serbia. Delivery times from Shanghai and other major Chinese seaports to Odessa average 22–25 days compared with 35–40 days to St Petersburg.

Although transport costs tend to be higher for shipments travelling through Odessa than St

Petersburg, it is still a viable option for shippers of high-priced or perishable cargoes that require shorter delivery times. Those higher freight rates are offset in large part by lower port fees in Odessa compared with its main Russian competitor.

Furthermore, dues are expected to decline in Odessa thanks to an ongoing modernisation and expansion at the port, as well as the arrival of Hutchison Ports at nearby Chernomorsk, roughly 29km to the south.

In late 2017, the Hong Kong-based terminal operator signed a preliminary agreement with the Ukrainian government for a 49-year concession at Chernomorsk, which handled just 127,000 teu last year – a large increase in 2016 – despite having an estimated annual capacity of 1.15 million teu. Back in 2008, the terminal was handling 670,556 teu, before legal wrangling and regional conflict with Russia hit its throughput.

Chernomorsk primarily handles grain, coal, ore, and general cargoes, as Odessa handles the majority of Ukraine's containerised trade, but government officials hope that the involvement of Hutchison will lead to higher container traffic at the port. Containers make up about 15% of the cargo mix at Chernomorsk, which has a 6km quay and 14m draught that enable it to handle three container ships of more than 5,000 teu at the same time.

Terminal infrastructure aside, Hutchison Ports will have its work cut out in developing inland connections to and from Chernomorsk. Access roads are in a state of disrepair, and despite a promise from the Ukrainian and regional governments to upgrade conditions, such improvements have yet to begin in earnest.

As a result, the port will likely have to rely heavily on rail service to attract discretionary cargo. Chernomorsk currently has a container rail connection to the Lithuanian port of Klaipėda via Viking train, whereas Odessa and Yuzhny also offer rail services service to and from the ports of Riga, Latvia, and Muuga, Estonia, via Zubr.

Chernomorsk's competitiveness will also hinge on its ability to attract regular services, with most global container carriers already having Black Sea networks that call at Russia's Novorossiysk, which began to receive regular direct calls from China over a decade ago. **PH**



NAVIS: 5029930

Remote-controlled ports become reality

Pushing the limits on remote-controlled offshore is the latest trend in port automation,
Zoe Reynolds reports

A semi-automated facility at Bayonne Global Container Terminals, New Jersey, US

Could a company's global container terminal crane operations around the world be operated remotely from one central control tower?

That is the question first posed by Fredrik Johanson, general manager of marketing and sales at ABB Crane Systems in 2015.

"Let there be no doubt that automation and remote operation are the key trends for port operators today," he wrote. At the time, Johanson concluded that to ensure safe operation and fast response, real-time and time-critical process control functions should remain within the terminal.

"A crane operator must, for example, be able to perform an emergency stop," he stressed.

While a control room anywhere in the world can have a direct link to the crane through the company network, transmitting the video images needed to operate it would require substantial network capacity to avoid transmission delays.

Future advances in artificial intelligence, however, could overcome this. At the frontier of "tele-robotics",

the act of piloting machines from afar is making eerie advances. The Shadow Hand, courtesy of SynTouch and Shadow Robot Company, has created virtual fingertips fitted with sensors, allowing the operator to actually feel the sensation of touch in, say, London, while sitting in San Francisco, according to *Wired* magazine.

Another recent breakthrough is 'all seeing' robots able to look at a stack of boxes and plan a path for grabbing one particular box, according to Michael Perry, vice-president of business development at Boston Dynamics.

Already ABB has digitised the operations of its ship-to-shore cranes so that deckman and checker operations are now done remotely.

"The risk of errors is minimised since manual inputs are no longer needed," Uno Bryfors, senior vice-president of ABB Ports told *P&H*.

"Along with the advancement of automation, and with communication technologies for that matter, cranes will become even more autonomous robots with minimum human interaction," Johanson predicted. "There will be no limit to how remote-controlled operations can be."

Yardside, at least one company is already testing the limits of remote control.

Manila-based port operator International Container Terminal Services Inc (ICTSI) set up Asia Pacific Business Services Inc (APBS) in December 2015 to service its regional operations. A job description posted earlier this year said the work was to "provide assistance to truck drivers through virtual communication tools".

Adjacent to ICTSI's port in Pasay City, Manila, APBS workers oversee the operation of security gates and automatic stacking cranes via Gate Operating System and Terminal Operating System software as far afield as Melbourne, Australia.

ICTSI operates 32 terminals in 19 countries – six in Asia Pacific (Australia, China, Indonesia, Pakistan, Papua New Guinea, and the Philippines). It also operates in Africa, Europe, Latin America, and the Middle East. At its Australian Victoria International Container Terminal (VICT), APBS employees in Manila now oversee yard operations in Melbourne from the gate to the stack – remotely.

However, attempts to shift the remote-control quay crane operations in Melbourne to Manila reportedly failed because of time delays. When contacted by *P&H*, ICTSI did not respond.

So is ICTSI APBS the world's only control centre for multiterminal remote yard crane operations?

"I'm not aware of any other operators offshoring their remote operations of automated equipment," said Peter van Duijn, Maritime Logistics expert, Institute for Supply Chain and Logistics, Deakin University, Australia.

Duijn is also director of the International Cargo Handling Co-ordination Association Australia and a former manager at Patrick Container Terminals, which pioneered port automation in Australia.

Like Johanson, he believes critical port automation tasks should be kept close at hand.

"Yard equipment is relatively easy to automate as that equipment operates on fixed infrastructure, which is not subject to any of the vagaries of a container vessel," he said. "Containers in the yard are not 'twist-locked' together as they are on a ship's deck."

Even so, someone sitting behind a bank of screens with joy sticks – even at a close distance – was not as good as a crane driver physically sitting in the crane above the ship.

"Even after two years they are struggling to get up to the productivity of a real driver," he said.

A survey by global management consulting company McKinsey, 'The Future of Automated Ports', released in December 2018, voiced ongoing frustrations with automation.

McKinsey surveyed senior port executives and managers in China, Europe, the Middle East, Singapore, and the US, as well as global suppliers of automation equipment and software, academics, and shipping executives. The majority complained that automated terminals were generally less productive than conventional ports.

"An executive of a global port operator told us, for example, that at fully automated terminals, the average number of gross moves per hour for quay cranes – a key indicator of productivity – is in the low 20s," McKinsey reported. "At many conventional terminals, it is in the high 30s. With numbers like these, automation can't overcome the burden of the up-front capital expenditures."

Could terminal operators shifting some operations to low-cost labour countries be one way of recouping costs? Unions in Australia estimated that wage differential at about 75%.

"Offshoring to cheaper labour countries is in my view, not a pressing matter," said Duijn. "One of the biggest savings in automated terminals is it enhances safety. There's less injuries [lower insurance premiums] and if an accident occurs nobody gets hurt."

However, greater automation also opens the door to labour disputes with existing staff. The International Longshore and Warehouse Union (ILWU) and the International Transport Workers' Federation (ITF) have said that plans to automate part of APM Terminal's operations in Los Angeles are sacrificing productivity for lower labour costs. Unions globally are becoming increasingly concerned about the job losses that result from automation.

Automation can also bring other risks. The economic costs of large-scale cyber attacks already exceed losses caused by natural disasters, according to a presentation at the 2018 Monte Carlo Reinsurance Rendezvous.

In June 2017, Russian malware found its way from its cyber war on Ukraine into Maersk's shipping and ports global empire. Maersk terminals around the world were crippled – and it was the automated terminals that were hardest hit.

“Even after two years, [automated ports] are struggling to get up to the productivity of a real driver”

Peter van Duijn, *Maritime Logistics expert*

Tens of thousands of trucks queued outside California's Long Beach, Los Angeles, and Rotterdam as computer systems crashed and everything from security gates to quay cranes froze, Andy Greenberg wrote in his book *Sandworm*.

"Increased automation and the decrease of manual intervention in the maritime industry provide fertile ground for security breaches," Dr Indra Vonck, port expert, Deloitte, wrote for the Baltic Ports Organization in 2017. "Cyber security on ships and in ports now becomes of paramount importance, since the economic impact on the shipping industry and port operations is huge," he warned.

ICTSI VICT, while denying jobs are going offshore, are confident security is taken care of.

"VICT is aware of the potential cyber vulnerabilities and we take all necessary measures to protect against them," a port spokesperson said.

Carsten Rudolph, associate professor of cyber security, School of Information Technology, Monash University, however, warns remote-control systems could create targets for warfare.

"Anything operated remotely relies on camera feeds and laser sensors, which means your view is limited," he said.

"Sensors and camera feeds can be hacked and manipulated so the view you get is deliberately not showing what is happening," he added, pointing to the 2008 cyber attack that set an oil pipeline off the coast of Turkey on fire. "Installing firewalls is just like putting sticky tape round the weak spots of our system," he said. "Risk analysis should be undertaken before systems are put in place."

"Globalisation is happening and will no doubt continue," said Duijn. "But Maersk is a bit of a warning. If the whole country comes to halt because of something like this, it might be a wake-up call. We've got to be a bit careful about outsourcing to lesser economies."

On a more positive note, McKinsey's 'Future of Automated Ports' concluded investments in port automation will eventually lead the way towards a new paradigm – the shift from asset operator to service orchestrator or digitally enabled efficiency gains throughout the world economy. **RH**



WPSP-5109217

WPSP to create UN SDG road map

Ports around the world are already working hard on sustainability, but using the UN's Sustainable Development Goals (SDGs) could help them do it smarter and more effectively, **Jonathan Robins** reports

Workshop participants at the UN office in Geneva

Whereas once non-financial impacts were viewed by ports as a side-show to their real businesses of moving goods and making money, many facilities now see their responsibilities to the planet and society as integral to their activities.

To help them in their efforts, the IAPH's World Ports Sustainability Program (WPSP) held in March an interactive workshop to look at integrating the SDGs into port's business strategies. The workshop was hosted by the Trade and Logistics Branch of the UN Conference on Trade and Development (UNCTAD) in Geneva, and organised in conjunction with the Antwerp Management School and the University of Antwerp.

"The workshop was designed to start developing a complete road map for ports to use the SDGs most effectively," explained Dr Antonis Michail, technical director of the WPSP. "Ports want us to continue looking

at this issue, and we had very positive feedback that we are going along the right path."

The SDGs are a set of 17 principles adopted in 2015 that seek to improve global development along social, economic, and environmental grounds, and encompass specific aspects such as reducing poverty and inequality, taking action on climate change and generating affordable and clean energy. "Every so often, the world community gets together and asks, 'how are we going to solve the big problems?'" Regina Asariotis, from the UNCTAD explained to the workshop, "the SDGs are a 15-year plan to improve development and make it sustainable".

Well intentioned they may be, but a central concern about the SDGs is that companies will simply ignore them. Wayne Visser from Antwerp Business School noted that the UN's Global Compact, a voluntary



Representatives from ports from around the world gathered to discuss sustainability

scheme that encourages business to adopt sustainable practices, has struggled to rise above 10,000 signing companies despite running for over 20 years. "So it could be that the SDGs goes the same way," he noted. Some may also use the SDGs simply for PR to "give the impression that they are doing a lot when in fact they're doing very little", while those that do adopt the SDGs earnestly may cherry pick an SDG that is already linked to their core business but which make relatively little wider impact. "It's not that it's bad, it's just that these have pretty marginal impacts," said Visser.

Yet the message from the ports and the non-port actors in the room was that sustainability concerns are being taken extremely seriously, and are here to stay. Representatives from ports on every continent bar Antarctica talked passionately about their sustainability programs, which ranged from hydrogen refueling in Auckland to underwater noise monitoring in Vancouver and feeding refugees from the jihadi group Boko Haram in Nigeria. "Port authorities have an interest in local communities – as sector ports are therefore keen to look at sustainability. The SDGs are another way to classify things that ports are already doing, and a great opportunity to expand on that," Michail told *P&H*.

The non-port stakeholders in the room were also clear: sustainable business is good business, that we want to be part of. Bud Darr from shipping line MSC pointed out that lenders are increasingly taking an interest in what their customers are doing, and asking how sustainable their activities are, "sometimes as a pre-requisite for financing". In addition, "There are other external drivers that are pushing us. Our largest customers, our largest shippers are also pushing us. They have their own key performance indicators, their own sustainability plans, and they've got to meet those goals too." Wilfred Remans from French bank BNP Paribas underlined many of Darr's points. Institutional investors such as pension funds are increasingly concerned with ensuring their funds are invested sustainably, he argued,

with environmental ratings agencies springing up to enable this to happen. "Companies are getting a score for their non-financial performance ... and investors are requiring this to invest," he said. "Companies want to be at the top of this list – I call it the race to the top."

The intent, and the incentive, is clearly there, but how can ports practically use the SDGs to improve their sustainability efforts? The workshop heard how selecting which SDGs to focus on requires careful thought to get the best return on investment. Visser outlined that organisations should seek to achieve 'integrated value' – which takes place when several goals are achieved at once.

The more that benefits can be combined, the more systemically sustainable the action will be. Relating this back to the SDGs, he noted that while there is some alignment between the goals, the connections between them can be hard to spot. But clever thinking can see projects generate integrated value.

Ports should start to look at the SDGs that are most crucial for their businesses first, and then examine the relationship between the SDGs to see how they can be combined. He cited the link between poverty and education, for example, or health, clean energy and poverty, to demonstrate how the greatest overall benefit can be gained. Some projects are already doing this. The port of Antwerp's Civitas Portis project, for example, is boosting public transport in the city, something that creates a more inclusive economy that is also sustainable. The European Sea Ports Organisation's (ESPO's) EcoPort scheme pushes ports to look at environmental sustainability, but also health and wellbeing, "and so you end up with a kind of clustering at the very least where each [SDG] is mainly related", Visser explained, something that also brings the greatest overall benefit.

Taking this thinking into something that can be used practically, the WPSP is now creating a usable road map consisting of four distinct elements. The first part will be guidance on how ports can integrate the SDGs into their businesses, based on the experience of ports who are already using them. The second part will focus on improving methodologies for port authorities and creating a check-list that ports can use to examine how ports are behaving against each SDG, to monitor how well they are doing and what they can do next.

On a third level, the WPSP is examining an assurance scheme, with certification to say that ports are applying the SDGs appropriately. And finally, the fourth element plans to examine creating a training scheme on the SDGs for ports, to pass on knowledge, better integrate the SDGs, and ensure the best return on investment. "The plan is to present a draft road map and priority actions for the SDGs in China," Michail told *P&H*, referencing the IAPH's World Ports conference in Guangzhou in May. "We had great input from participants, and that will help us to develop methodologies that ports will be able to use practically." **PH**



IHS Markit: 5109216



Piraeus Port Authority: 550427

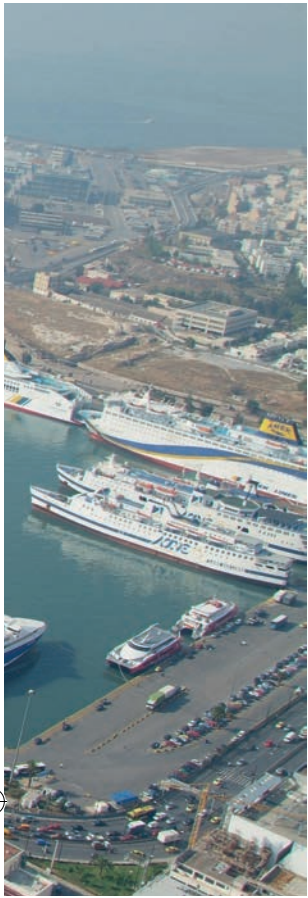
NEPTUNES noise pollution project concludes

It is perhaps not surprising that mooring vast oceangoing vessels within earshot of residential areas causes friction, but as the number of people living close to ports has risen, so have the number of noise complaints. **Jonathan Robins** reports

Especially in tightly populated areas, noise pollution is now a top three environmental complaint, according to the European Sea Ports Organisation (ESPO), with the growth in cruise vessels berthing in ports often close to the heart of cities having added to the issue.

Despite this, because of the problems with obtaining data, until recently there has been relatively little industry action to look deeper at the issue, and to resolve it. The NEPTUNES project (Noise Exploration Program To Understand Noise Emitted by Seagoing ships), named after the Roman god of the sea Neptune, was launched in 2017 with an objective of changing that.

"There have been some projects in the past on noise maps, noise areas, noise sources, industrial noise, and noise overall, but nothing before on how to deal specifically with noise from vessels," said World Ports Sustainability Program (WPSP) Technical Director Antonis Michail, who chaired a closing conference of the project in Rotterdam in March. "It's not an issue for all ports, but for those that it is, it's a really big issue," he said, adding that the project is only designed to examine noise from the vessels themselves, and not wider port activities. The NEPTUNES programme was launched



An increase in cruise traffic has brought vessels closer to residential areas, such as in Piraeus, Greece

independently by port authorities, and is financed by them, being free from the oversight of regulators. It is backed by 11 main port authorities, with around 9 observers.

Around 40 experts attended the concluding meeting of the project in late March to discuss and evaluate the final outcomes of the projects. Around 15 of the delegates were from port authorities, with the rest coming from port authorities, shipping lines, and noise consultants.

Delegates were presented with the results of the projects three main objectives: understand the problem; resolve how to best measure noise pollution; and then assess how the information can be used in terms of mitigation; including a best practice guide. They also discussed the significance of those outcomes for port authorities, shipping lines, classification societies, and for incentive schemes.

The outcomes are designed to be practical and easily applied to port authorities, while the best practice guide includes three main deliverables: measurement protocol; labelling and certification; and best practice recommendations.

The project started with examining vessel noise, creating a measurable protocol to uniformly measure noise from ships, and classify it so it is comparable. The protocol carried out noise measurements on individual ships at berth, and makes it possible to exchange and compare noise data from ships, and to even label a ship based on its noise performance.

NEPTUNES then proceeded to do noise 'labelling', that provides a score from 1 to 100 on how can the noise on the vessels be classified.

The final step was to produce the best practice guide, replete with examples of vessel noise pollution and how it can be mitigated either at source, on its pathway or at the receiver. The guide breaks noise solutions down by how complicated and costly they are likely to be to implement, with practical tips.

Mitigating the noise of machinery on board a vessel is likely to be the most important step to reducing noise emissions for vessels, it notes. However, "revision of existing noisy machinery on board is difficult to achieve", being reliant upon measures such as ensuring pumps are installed inside the ship's hull to a low noise design.

However, the guide also looks at the effectiveness of measures that vessels can more easily take, such as reducing the volume of public address systems, or planting trees to shield residences from excessive cruise traffic noise.

Given this, much of the focus of the guide looks at mitigation of noise at the receiver, and highlights actions such as improving building facades and windows, as well as ensuring that non-noise sensitive buildings are placed closer to ports than developments such as housing.

For port authorities, there are also cheap and easy solutions that they can take, such as informing residents about when noisy vessels will be arriving, and ensuring that loud vessels are not frequently berthed in the same location to avoid repetition.

The guide also highlights the important role that port authorities have in creating a positive perception, which can help to create a harmonious relationship with residents. This means that ensuring safety and security, good quality amenities such as playgrounds, and plenty of green space, can help to cement good relations with local populations even if they have little or no direct impact on reducing noise levels. The complete best practice guide can be downloaded at www.neptunes.pro/deliverables/.

Now that the project is officially complete, work will continue to apply the findings. A key development that may come out of the project is the inclusion of NEPTUNES's formulas into the IAPH's Environmental Ship Index (ESI) and Green Awards.

"It's a question of fine tuning in order to offer to ports the means to have that knowledge evaluation module into the ESI, and then ports that use the ESI can use that to reward vessels that are quieter," Michail told *P&H*.

"More flexibility will be given to the port, meaning that if the port doesn't have a noise problem, it's not obligatory that they'll have to have the noise information in their incentive. Vessels will also not be obliged to register to have their noise levels analysed, but to those who want to, and wish to gain the potential benefits of it, they can opt in for it."

The best practice guide will continue to be updated, and there is also the potential for a second project to be launched to dig deeper into the subject. **PH**

Noise pollution: Rotterdam's experience

Europe's largest port also happens to sit close to a large number of homes, with parts of the city wrapped around its vast terminals. The result has been a rising issue of noise pollution. In response, the facility has come up with some innovative practices to mitigate the disturbance. Joop Smits, the port's manager of Permits and Advice,

explained to *P&H* that in some harbor basins the system of mooring vessels has been modified to reduce noise. Whereas usually vessels moor with their bows facing the port to enable them to depart quickly under an emergency, some vessels are now mooring with their bow facing the shore. If the bow is facing the shore, Smits explained, then the

funnel is not, reducing the noise that residents are exposed to. In addition, the port has deployed a flexible silencer that can be placed on top of the funnels of moored vessels to minimise noise. Other solutions are more low tech, yet just as effective. "Better informing residents about louder vessels is key," Smits said.



The IMO's FAL committee examines how to best facilitate maritime traffic

Electronic information exchange begins

A requirement for national governments to introduce electronic information exchange between ships and ports came into effect on 8 April 2019, with the making of cross-border trade simpler and the logistics chain more efficient. The requirement

is mandatory under the IMO's Convention on Facilitation of International Maritime Traffic (FAL Convention).

"The new FAL Convention requirement for all public authorities to establish systems for the electronic exchange of

information related to maritime transport marks a significant move in the maritime industry and ports towards a digital maritime world, reducing the administrative burden, and increasing the efficiency of maritime trade and transport," said IMO Secretary-

General Kitack Lim.

FAL Convention encourages use of a "single window" for data, to provide information to public authorities on arrival, stay and departure of ships, persons and cargo, be submitted via a single portal, without duplication.

Japan joins ship demolition convention

Japan has become the 10th country to become a party to the Hong Kong Convention (HKC), which covers the design, construction, operation and maintenance of ships, and preparation for ship recycling to facilitate safe and environmentally sound recycling, without compromising its safety and operational efficiency.

Under the treaty, ships are required to carry an Inventory of Hazardous Materials, for each ship. Ship recycling yards

are required to provide a "Ship Recycling Plan", for each individual ship to be recycled, specifying the manner in which the ships will be recycled, depending on its particulars and its inventory.

To help increase international awareness of the importance of the HKC, the Ministry of Land, Infrastructure, Transport, and Tourism (MLIT) of Japan with the IMO Secretariat is hosting an international seminar on "Ship Recycling – Towards the Early Entry into Force of the HKC". The

seminar will be held on 10 May at IMO Headquarters in London. The seminar will discuss how to promote sustainable ship recycling and how to move forward for the early entry into force of the HKC.

The contracting states to the HKC are: Belgium; Denmark; France; Japan; the Netherlands; Norway; Panama; Congo; Serbia; and Turkey. They represent about 23.16% of the gross tonnage of the world's merchant shipping. The combined annual ship

recycling volume of the Contracting States during the preceding 10 years is 1,709,955 gt, ie 0.57% of the merchant shipping tonnage of the same states.

The HKC will enter into force two years after these conditions are met: 15 states have acceded to the convention, the combined merchant fleets contracting states is 40% of the global gross tonnage, and the combined maximum annual ship recycling volume of signatories during the preceding 10 years is at least 3% of the gross tonnage of the combined merchant shipping of the same states.

Notable numbers



5–11 May

IAPH World Ports Conference, Guangzhou

-1%

2017 container volume growth, Hamburg

IMO makes single window data available

An IMO project promoted by Norway to establish a maritime “single window” in Antigua and Barbuda has been completed – and the source code for the system will now be made available to other countries who need it. At a meeting of the project’s Steering Committee on 11 April, the maritime single window system developed by Norway was formally handed over to Antigua and Barbuda.

IMO Secretary-General Kitack Lim said that the generic maritime

single window system developed under the project would perform many different services within the realm of ship reporting and information exchange, helping to make cross-border trade simpler. These services typically relate to registering port calls and facilitating the clearance of ships, passengers, and crew members.

Lim commended Norway for its initiative and generous in-kind and financial support for the 19-month long project, and Antigua and Barbuda for excellent collaborative

work by all the administrations and private stakeholders to make the project a success.

“I believe that this system will assist member states, in particular Small Island Developing States, in complying with the new requirements of the FAL Convention. I would like to commend Norway for the project and its generous offer of the source code developed for the system established in Antigua and Barbuda to other interested member states,” Lim said.

Siv Christin Gaalaas, speciality director for Industry and Fisheries at Norway’s Ministry of Trade, said “Norway will continue its dedication to ensuring that technology is used, not only to enhance ship safety, but also to reduce administrative burdens both for ship masters and maritime administrations. The single window system should also facilitate efficiencies and cost reduction in ports.”

The maritime single window source code developed during the project will be released under the Open Source MIT License.

GloFouling project kicks off

A five-year project to help protect marine biodiversity was launched in March at IMO Headquarters in London. The IMO-executed GloFouling Partnerships project will look at bioinvasions by organisms, which can build up on ships’ hulls and other marine structures. The introduction of invasive aquatic organisms into new marine environments not only affects biodiversity and ecosystem health, but also has measurable adverse effects on sectors, such as fisheries, aquaculture, and ocean energy.

“Addressing invasive aquatic species is not only a matter of ensuring the health and integrity of marine ecosystems, but ultimately about safeguarding ecosystem services that sustain the livelihoods of coastal communities across the globe,” the IMO said.

The GloFouling project is a collaboration between the Global Environment Facility (GEF), the United Nations Development Programme (UNDP), and IMO. Representatives from 12 lead partnering countries, 4 regional organisations, IOC-UNESCO, the World Ocean Council, and numerous strategic partners attended its first



The issue of biofouling is gaining in prominence

Global Project Task Force meeting for the GloFouling Partnerships project.

“This milestone event marks the real start of this exciting project, the first-ever globally coordinated effort to address biofouling – not just from shipping, but from all marine sectors,” said Jose Matheickal, representing IMO’s Marine Environment Division.

The London meeting heard status reports from the lead partnering countries,

regional co-ordinating organisations, and strategic partners. Discussions centered on shipping and also on other marine sectors such as ocean-based renewable energies, aquaculture, offshore structures, and recreational activities, including sailing.

Some of the next steps expected from the GloFouling project will include setting up national task forces in the 12 participating countries and launching its own Global Industry Alliance for Marine Biosafety as a vehicle for enhanced partnership between the public sector and the maritime industry, and the alignment of public, NGO, and commercial activities towards common goals.

The GEF, through UNDP, is providing a USD6.9 million grant to deliver a range of governance reforms at the national level, through numerous capacity-building activities, training workshops and opportunities for technology adoption to help address the issue of invasive species. Strong participation from private sector stakeholders is also expected.

IOC-UNESCO will work hand-in-hand with the GloFouling project to increase awareness.

450,000 dwt

Tanker size that can be handled by Qingdao’s new oil wharf

30%

Maersk’s share of Ukrainian container traffic



Young people play Peel Port's Business on the Move board game

Finding the future

Getting young people involved in ports is easier said than done. But if the experience of the UK's Peel Ports is anything to go by, not only is it possible, but it can also bring big rewards. **Jonathan Robins** reports

All businesses want to reach out to their communities, customers and potential employees. But when your business is hidden down the value chain, that can be tricky. The UK's Peel Ports has been using its outreach programme to bridge that gap.

Back in February 2018, the group launched its 'Business on the Move' initiative, to get young people interested in ports, and ultimately boost its recruitment programme. A central feature is a board game that teaches children from age six or seven up to university graduate about how the logistics industry works.

"You've effectively got four teams, and each person on that team has to manage a logistics business, getting cargo from

China into the UK. It uses real companies and real orders," explained Peel Port's Greg Deak.

But if the game is a tactic to grab the attention of young people, the wider strategy is engagement.

As well as its Business on the Move scheme, Peel Ports in Liverpool has formed partnerships with local education providers such as John Mores University and West Lancashire College, where they are working on a new logistic hub, as well as the Ports Academy Liverpool at Hugh Baird College, which offers practical training on the subject, something that Peel Port's staff are involved with. Upcoming is also a Maritime Knowledge Hub in Birkenhead, something

that Peel Ports is helping to launch as a strategic partner.

These links, as well as others forged with schools across the region, enable Peel Ports to engage with young people and teach them how their ports works, what they do, and why they might be a great place for them to work in the future, as well as play the Business on the Move game.

"It's our actual staff members that go in and engage with them, from marketing from finance from every department you can imagine. The idea is to break down the barriers and inspire children to consider a career in the logistic sector," Deak told *P&H*.

Students are also taken out on site to see the port's recent investments like the

Liverpool2 terminal, with its cranes that are taller than the arches of Wembley Stadium. "An experience like that has the power to change someone's life. They might think back to it as the moment they realized they wanted to work in engineering or technology, and that's the kind of experience we want to create for young people," said Deak.

While for younger children the port's engagement programme looks to give them a broad insight into the port and consider it as a career when they get to 16 or 18, for people who are leaving school the focus is much more about career opportunities. The result overall has been positive, even only one year into the programme. "We launched the scheme in 2018, so a lot of the students are still in school," noted Deak, "But we've had 10 students from one college doing placements with us, and many want to come back."

The need to conduct such an outreach programme is one that will be familiar to people in the ports and logistic sector



Peel Ports: 5109696

Peel Ports looks to engage with children to get them interested in its ports

worldwide: despite it having a huge impact on their lives, the vast majority of people have no idea how ports and logistic works.

"What we found in our recruiting meetings is that most young people don't know anything about ports or logistics. They just think you order something on Amazon and it turns up on your doorstep the next day," noted Deak, in comments that echo sentiment from across the industry. "What

the Business of the Move initiative strives to do is make people realise that there is much more to it than that, and it can be a fascinating career, including in ways they might not expect."

When you talk to young people about ports, *P&H* asked, what is it that attracts them to it?

"Once they get to see the amount of skill and knowledge that's required to kind of make a port work, it's quite amazing. And when we're talking about

things such as automated cranes, and I'll tell them it's operated by someone in a room far away controlling it from a computer screen, and the technological solutions that are required, it gets people thrilled and excited and everyone wants to find out about the diversity of the roles available."

The company is currently looking to increase its headcount by 250 people, something that has been made much easier by

the outreach programme. And while they do find there are skills gaps for things like engineering where they are actively looking for certain people, they feel that their outreach problem has put them in a strong position. "Because we have a very successful ongoing campaign we've got some really talented people working for us. But I think some business in maritime that did not take the approach we did may struggle," Deak explained. **RH**

The apprentice: Lewis Wooding-Smith

I joined Peel Ports back in 2015 – so I've been here over four years now. I work within the container terminal maintenance team. Initially I had some apprehension, I thought it was just a warehouse job and there wouldn't be much scope, but I've developed my role to industry management and spot management.

Through Peel Ports I'm studying for my CIPS (Chartered Institute of Procurement & Supply) qualifications, and moving into a more procurement

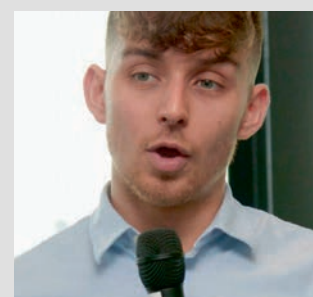
role. I'm enjoying it – there are always challenges – but that's every job.

I got here because Peel Ports was advertising for apprentices. I made it to the final stages as an engineering apprentice. I didn't get that role, but it created a new one for me based on my attributes – the company picked up on something and acted on it.

There's a lot of variety working in ports. The nature of ports is so broad, whatever you're looking for your career to be in, you

will find it in the port sector. Whether you want to be an engineer, whether you want to work in software, the ports industry will have those positions. It's such a broad stroke, you can't really pin it down.

The apprenticeship for me offered the initial qualifications to get involved. The port sector itself is going through a bit of a technological revolution, and the apprentice prepared me for that. Just as the sector is constantly developing, and my development is changing alongside it.



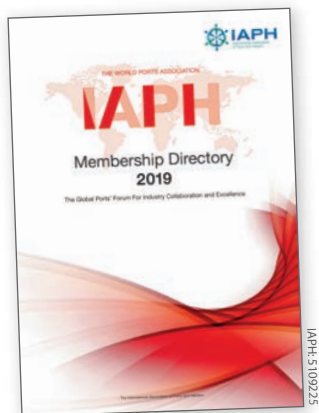
Peel Ports: 5109695

Lewis Wooding-Smith, an apprentice at Peel Ports Liverpool

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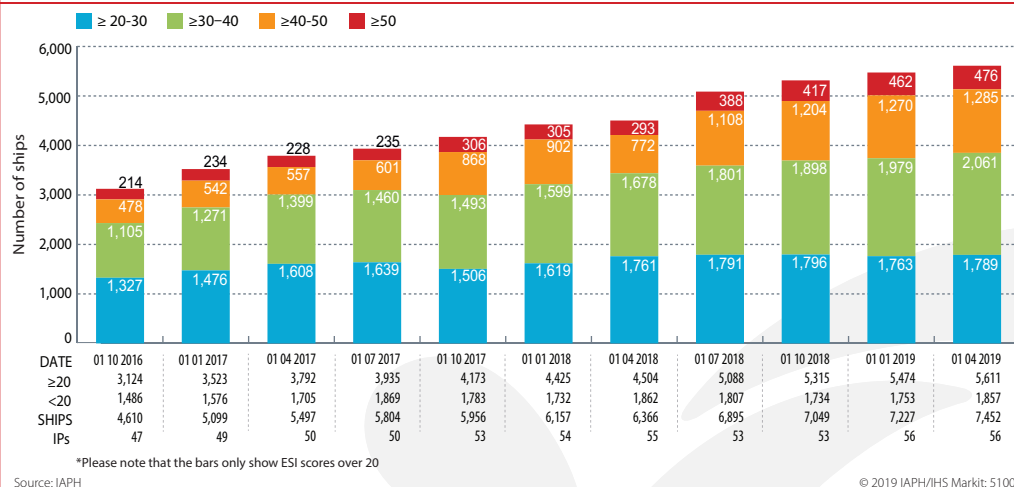
The *IAPH Membership Directory 2019* has been published and sent out to members. We would like to say a big thanks to all IAPH members who assisted us in keeping the contents up to date, as well as advertisers who kindly placed impressive adverts.

If you would like to order any free additional copies, or have any other enquiries about the directory, please contact the IAPH Secretariat at directory@iaphworldports.org



IAPH 2019 Membership Directory

ESI scores



ESI registrations are continuing to rise

High-scoring ESI growth continues

Nearly 7,500 ships were registered with the Environmental Ship Index (ESI) as of 1 April 2019, data show, with the number of vessels taking part in the scheme jumping dramatically from the same period last year. At the time of writing, 7,452 ships were registered, giving an overall increase of 1086 since 1 April 2018. Ships with a high ESI score of 40 points and above continued to see strong growth, accounting for 696 of those additional vessels. The number of low-scoring ships (less than 20

points) was only slightly higher than a year before, despite the surging overall numbers of vessels taking part in the scheme.

The ESI is a voluntary tool that rewards and incentivises ships that meet and exceed emissions standards. It includes a formula-based evaluation of vessels' nitrogen oxide (NO_x) and sulphur oxide (SO_x) emissions. It is also a reporting scheme on the greenhouse gas emission of the ship. The calculation also rewards vessels that are equipped to use available onshore

power and that demonstrate fuel efficiency improvements over time, reducing carbon dioxide (CO₂) and particulate matter (PM) emissions.

Ships are then given point scores in several bands: less than 20 (0 being basic compliance with international regulations), 20–30, 30–40, 40–50, and the highest score of 50–100 points. Ships with 100 points are among the best-performing vessels currently at sea. The scheme has more than 50 incentive providers, including ports authorities and class societies.

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Regular member

Nagoya-Yokkaichi International Port Corporation

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Website: www.nypc.co.jp
Representative: Hiroyuki Sato, president

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2021

Dates for your diary

A selection of forthcoming maritime courses and conferences



May

- 14–16:** 1st Caspian Ports and Shipping 2019
Aktau, Kazakhstan
www.transportevents.com
- 14–17:** 43rd Annual Center for Oceans Law & Policy Conference - BBNJ
Malmö, Sweden
conferences.wmu.se
- 20–24:** TTPM: Port Congestion and Strategic Container Traffic Management
London, UK
www.ttpminternational.co.uk
- 21–23:** Breakbulk Europe 2019
Bremen, Germany
europe.breakbulk.com
- 22–23:** Port Logistics Development Forum
Shanghai, China
www.pdforum.com.cn
- 23–24:** 16th ESPO Conference
Livorno, Italy
www.espo.be

June

- 3–7:** PIANC AGA
Kobe, Japan
www.pianc2019.com
- Commences 4:** Diploma in Terminal Management
Commences from 4 June, online learning
www.lloydsmaritimeacademy.com
- 5–14:** IMO: Maritime Safety Committee (MSC) – 101st session
London, UK
www.imo.org
- 6–8:** AIVP Days
Riga, Latvia
www.aivp.org
- 10–11:** PMAWCA 40th Council Meeting and 2nd Exhibition
Lome, Togo
agpaoc-pmawca.org
- 10–14:** TTPM: Strategic Customer Relationship Management in Ports and Maritime
London, UK
www.ttpminternational.co.uk

- 11–12:** 4th Annual Ports and Terminals Insurance Seminar
(*IAPH members can benefit from an exclusive 30% discount.)
London, UK
<https://maritime.knect365.com/ports-terminals-insurance-seminar/>
- 11–13:** TOC Europe
Rotterdam, Netherlands
www.tocevents-europe.com/en/Home.html
- 17–28:** APEC Seminar: Dredging Technologies
Antwerp, Belgium
apecporttraining.com
- 24–28:** IADC Seminar on Dredging and Reclamation
Delft, Netherlands
www.iadc-dredging.com
- 24–28:** Maritime Week Gibraltar 2019
Sunborn Gibraltar
www.petrosport.com/events/MWG2019
- 24–28:** TTPM: Strategic Port Logistics & Global Supply Chain Management
London, UK
www.ttpminternational.co.uk
- 25–27:** 7th Mediterranean Ports & Shipping 2019
Casablanca, Morocco
www.transportevents.com
- 26–27:** Vietnam Port Development Conference 2019
Ho Chi Minh City, Vietnam
www.vietnamportconference.org

July

- 1–5:** TTPM: Managing Strategic Marketing & Competition in Ports & Maritime Trade
London, UK
www.ttpminternational.co.uk
- 9–11:** 8th Black Sea Ports and Shipping 2019
Constanta, Romania
www.transportevents.com



Gibraltar Port Authority: 5109188

A centre of maritime excellence

The strategic location of Gibraltar explains why, for centuries, battles have been fought over this tiny peninsula at the entrance to the Mediterranean Sea, writes **Manuel Tirado**, CEO of the Gibraltar Port Authority

Located at a crossroads of the Mediterranean and Atlantic shipping lanes, Gibraltar is ideally placed to provide a wide range of services to vessels, ranging from bunkering to crew changes, repair work, or taking on supplies and stores, to vessels of all sizes and types, with minimal deviation from their transits. With over 50,000 vessels transiting the Strait of Gibraltar each year, the Rock has become a major bunkering port – the largest in the Mediterranean – and offers a wide range of other shipping services.

The Gibraltar Port Authority (GPA) employs over 50 staff and its core functions and responsibilities include: monitoring and control of all vessel movements within British Gibraltar Territorial Waters (BGTW) in support of port operations and navigational safety; provision and monitoring of port security including security measures within restricted and controlled zones; the licensing of port operations; search and rescue in BGTW; pollution prevention and response; and monitoring and control of ship-to-ship and bunkering operations within BGTW.

Gibraltar's privileged strategic position at one of the major crossroads of the international shipping trade routes has certainly been key in its success. The GPA is the primary regulator of the bunkering industry at the port. In partnership with local bunker suppliers it has created

what is widely recognised internationally as an excellent management process of the entire bunker supply chain. The Gibraltar Bunkering Code of Practice is acknowledged as a leading exemplar of the way bunkering should be regulated.

The GPA also takes its environmental responsibilities very seriously, and continually invests in its capabilities. The port follows the relevant international and local legislation on environmental issues and is a member of the Green Port Association, offering discounts to ships conforming to certain environmental standards. Gibraltar is also an associate member of Oil Spill Response Limited (OSRL) of Southampton.

As a cruise destination, Gibraltar has it all: location, facilities, unrivalled levels of service and an abundance of attractions, and its popularity is growing all the time. With its prime location at the southern tip of Europe, guarding the gateway to the Mediterranean, Gibraltar is an ideal port of call for cruise ships whose itineraries include the transit of the Strait of Gibraltar.

Finally, Gibraltar is becoming increasingly popular as a port of call for superyachts. Able to host the largest of these prestigious vessels, the GPA's Mid-Harbour Marina offers more than 500 m of deepwater berthing for superyachts in the relatively sheltered inner harbor. **RH**

Gibraltar's privileged strategic position at one of the major crossroads of the international shipping trade routes has certainly been key in its success



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