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Providing thought leadership on the role of ports in a connected world



Forging an alliance

World Bank economist Martin Humphreys and the IAPH work on plans for prosperous ports

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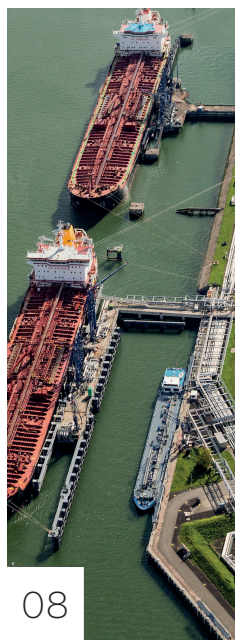
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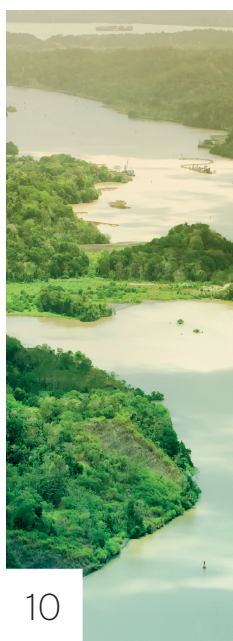
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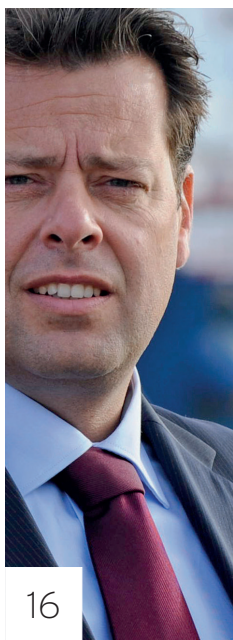
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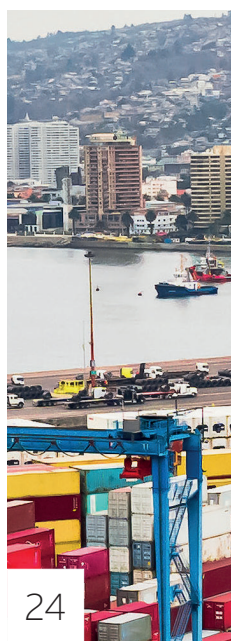
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EDITOR'S COMMENT



INES NASTALI
Editor

The butterfly effect

CONTRIBUTORS



GORDON FELLER
Freelance journalist

Central America's ties to the US have been a dominant force for two centuries. As global trade flows into and out of the region steadily rise, the region's business and government leaders are taking steps to strengthen the ports and connected infrastructure. These investments and regulatory initiatives have gone largely unnoticed. They clearly deserve more attention, and a closer look shows that some of the moves being made offer real potential for lasting change. ■

It is customary at the beginning of the year to look back and assess both what we have faced over the past 12 months, and what we can learn from this to prepare ourselves for the next dozen.

The past year — and likely even the stretch back to the beginning of the pandemic — has shown us how a small change or an event that doesn't seem to have an immediate impact on one's operations can cause massive disruptions and lead to a cascading effect.

In the case of the maritime industry, the grounding of the *Ever Given* in the Suez Canal in March 2021 is, of course, one such example. It took only one ship to severely disrupt trade operations.

The shortage of containers and the buying surge are other examples of the butterfly effect that describes how a small change that might have happened some time ago can have a big effect. This metaphor was coined by mathematician and meteorologist Edward Lorenz when he was working on a weather model.

He said that the formation and path of a tornado could be influenced by the tapping of a butterfly's wings, which might have happened weeks ago.

Fittingly for this weather-related metaphor, several ports have also endured flood and storm closures during the past year, adding another element into the mix. You can read more about how this has affected Vancouver, as well as ports in Chile, within this edition of the magazine.

This perfect storm did not only disrupt maritime operations. It forcefully catapulted us into the public eye of the storm — finally, some might say.

I have spoken here before about the craving of the maritime industry to be better understood and recognized for its work in the mainstream media.

This became a reality several times in 2021. For example, on its December cover, renowned magazine *The New Yorker* featured Santa Claus pulling a container ship into berth, raising awareness of the fragile supply chain in the run-up to Christmas and the question of whether presents will find their way under the trees in time.

Maritime industry reaction to the cover on Twitter ranged from praise to complaints about Santa being a "fair weather freight fan" and the illustration showing the ship's accommodation facing the wrong way.

It seems, we are hard to please. This reaction also confirms what I have said before. We are better off behind the scenes if we bemoan the limelight.

So, ahead we look for someone who will help us identify the butterfly that will steer the next figurative or literal tornado.

Here we can draw from another lesson some learnt the hard way during the pandemic: listen to scientists.

I could imagine that in future, ports will employ a designated catastrophe researcher, tasked with identifying risks and monitoring potential issues along the supply chain that could affect operations before the tornado reaches us and we can only react to what, at that point, will already be consequences for ports. ■

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TONY SLINN
Freelance journalist

In writing about Portbase, one of the first things that surprised me was the fact it is a not-for-profit organization. But that has doubtless led to its widespread take-up by Dutch ports and the trust it inspires in those companies and agencies looking to join the community it has created.

It's a model that ports globally would do well to study. ■



VLADISLAV VOROTNIKOV
Freelance journalist

Building a big port is never easy. Environmental concerns and rising competition are common challenges of such projects. However, the Chilean port development projects face problems of a different kind – strong storms and high waves. It is intriguing how successful Chile will be in dealing with these issues. Given the poor predictability of climate change, the country's experience could eventually become useful in other corners of the world. ■

IN CONVERSATION WITH MARTIN HUMPHREYS

Forging an alliance

Patrick Verhoeven, IAPH managing director, and Martin Humphreys of the World Bank discuss working together to advance digitalization and decarbonization in ports and give developing countries a fair business opportunity

INES NASTALI



In 2020, the IAPH surveyed its members looking at their compliance with the IMO Facilitation on International Maritime Traffic (FAL) Convention and found that only one-third of respondents met the requirements to have digital port community systems in place. This followed the IMO revelation in November 2020 that only 49 of the 174 IMO member states have working systems.

One year on, IAPH managing director Patrick Verhoeven talked to Martin Humphreys, lead transport economist at the World Bank, about the current status of port digitalization especially in developing countries.

“Without being in any way critical of the survey, you’re going to get some respondent bias in the sense that those people who do meet the mandatory requirements are more likely to respond than those who don’t,” said Martin.

He therefore voiced caution. “So, I wondered whether the 34% is actually accurate and it’s probably lower. I suspect the figure relating to the 49 countries out of 174 member states that actually have a functioning port community system is probably similar.”

These revelations do not appear to have functioned as the intended wake-up call as “subsequent to our *Accelerat-*

ing Digitalization Across the Maritime Supply Chain report, I would like to say that countries and ports are rushing to us to take advantage of the grant financing that we have available to support their journey down the digitalization road, but that isn’t the case, yet,” said Martin.

Consequently, to get a fuller understanding of the situation, the World Bank economist said, “I would be intrigued whether the IAPH plans to do an annual survey or to repeat the survey in relation to the FAL Convention to ascertain whether there’s been any progress. Despite the urgency and the importance of taking this forward to improve resilience over the medium term and address the introduction of a digital divide, I would be surprised if there has been a lot of progress.”

The IAPH is indeed in the planning stages of an extended study on the matter, Patrick said. “What we’re preparing now is a concept called World Ports Tracker, which has two components, one that is looking more at the economic performance of ports and we’re using partly IHS Markit data for that as well, so it’s not all survey-based. And then the second pillar, which looks at our three strategic areas, of which digitalization is one.”

In the tracker, some of the questions that the IAPH asked in the survey focus on IMO FAL in 2020 will be repeated, “so that we can update and track this on an annual basis” Patrick added.

The pandemic has added to the delay of implementing the convention, said Martin: “There’s always a danger with further waves of the pandemic that an issue like this is pushed to the back burner. Ports in developing countries are focused on the fire fighting necessary to keep the ports operating and upgrading an IT system or starting the digitalization road map is unfortunately delayed.”





He explained further, “That’s certainly the case in one of our client countries who were the subject of a major cybersecurity attack, they declared force majeure, and despite the initial request from them, we’re having difficulty just getting the formal sign-off to go forward and hire the consultant and send them in.”

Digitalization first

This is hindering progress but also important first steps to be taken as Martin argued that starting out to modernize operations is crucial.

“If you’re talking about a port authority starting its digitalization journey, I would say the return you get from a relatively modest investment in digitalization is greater than or certainly equal to the return you get from a far more lumpy and significant investment in physical infrastructure,” he said.

For example, “you can improve your spatial operating efficiency and port city interface, possibly your hinterland connectivity, all of which are challenges in many of our client countries. And you know what we see, unfortunately, far too often is that the port authority sees its remit ending at the port gate,” Martin said. This results in issues around the port. “You have queues of trucks causing significant congestion, 90% of the freight in Sub-Saharan Africa is carried by truck. There’s very little intermodality, and a functioning port community system gives an opportunity to make far better use of the space and so you can increase throughput for a modest investment. So, digitalization first.”

Fair and square

At the same time, these improvements in operations also help to curb emissions as digitalization and decarbonization go hand in hand. “I think 84% of the costs associated with decarbonization of the maritime sector are on the land side and that excludes the costs associated with improving the environmental sustainability of the port itself. For a less developed country, it has a choice between a low-cost, carbon-intensive alternative and a high-cost non-carbon alternative. Who’s going to fill the gap? In some cases, they are looking to the developed world to fill that gap,” he said, alluding to market-based measures that were recently discussed at the IMO Marine Environment Protection Committee (MEPC) meeting in 2021. “The vessel, if you’ll forgive the pun, which we’ve estab-

“MEPC was a bit of a missed opportunity”

PATRICK VERHOEVEN
Managing director
IAPH

lished at the World Bank to do that is the Global Facility for Decarbonizing Transport. And if there was a market-based measure on the maritime side, even at a relatively modest level, the funding would be significant enough to support first movers and provide offsets to those disadvantaged by the change.”

However, developing countries oppose measures that are not equitable. “I can fully understand the challenges that they face. On one hand, they’re at risk because of the impact of climate change, which

they didn’t cause. And on the other hand, their cost of living is going to increase markedly with the introduction of a market-based measure. As a member of a development organization that has a global reach, we are well placed to address that gap. But we’re getting into an area of conjecture here because there are a lot of discussions and decisions needed to be taken before we can actually move forward, but that’s something that we would be looking to do,” said Martin. Patrick added that this chance was not taken during the meeting. “MEPC in November was a bit of a missed opportunity. It didn’t really get into the heart of the matter and it’s now all postponed again to the intersessional meetings that will take place in 2022. But hopefully we can really get to the heart of that discussion at the next MEPC meeting and create a measure funded by a levy and determine what that revenue is going to be used for to bridge the divide between the emerging economies in IMO and the advanced economies that say we’re not ambitious enough, we should move faster.”

Martin agreed, but warned that, “One could anticipate that there’s a movement from outside the IMO, and this is obviously not something as a member of the UN that I advocate, which leads to the introduction of a market-based measure. I think that’s unfortunate because the IMO needs to be part of the process. Certainly, part of the discussion and potential use of some of that funding.” He added, that some of the capacity building and technical assistance that would be needed as part of that evolution to a digital and green port system, the IMO is well placed to provide this with its regional centers.

For Patrick, this two-way path “will create a lot of complication, foremost for the shipping lines, if they have to comply with a voluntary and then a regional mandatory system. Of course, the IMO way is the best one. I think we all agree, but how can we accelerate it? How can we avoid an MEPC like in November?”

Getting the basics right

The matter is aggravated by the fact that especially in developing countries, decarbonization is a far broader and a more difficult challenge as basic infrastructure might be lacking. “What’s the generating mix within the country? How reliable is it? There’s little point in having a green port, if the generating mix is unreliable and is entirely fossil fuel-based,” Martin explained.

Consequently, while there is a potential business opportunity for ports in some developing countries in decarbonization, “you need a just and equitable transition on the generating and the transmission side and you need a certain suitability in relation to the climate to become a potential producer, and you need to have a physical location that’s attractive to the industry as bunkering hub,” the World Bank economist said.

At the same time, he also voiced caution, “You also need to be able to service these vessels. If the largest vessels are going to be running on green fuel and the smallest and oldest vessels are going to be running on fossil fuel, those are probably going to be the ones that are servicing our client countries, and so the environmental benefits are not going to be realized for some time.”

Reforming the toolkit

One of the tools the World Bank provides to its client countries to assist them in undertaking sustainable reforms is the Port Reform Toolkit, last updated in 2008.

This kit is about to receive its own reform. “Many of the trends within the industry since its last update, which have been significant, not least decarbonization, have been missed,” Martin explained.

“Ultimately,” he said, “what we want to see are reduced costs and poverty and increases in international trade and in shared prosperity. That’s the mission now in this specific case,” he said.

Talking about how this looks in detail, he explains what the World Bank has planned, “What we envisage is having small technical working groups on key areas, one would be the institutional structure for ports and port management systems, public private partnerships, spatial and operating efficiency, as well as the social aspect and digitalization, and how they have changed.”

He added, “Ideally, this would be done jointly and chaired by us and the IAPH.”

Patrick is looking forward to working on this partnership, saying, “With the private sector involvement but also issues like digitalization and sustainability, which were not mentioned in the previous editions, I think the time is ripe and it actually fits well with our process running up to the World Ports Conference and identifying gaps in competitiveness.” The IAPH MD also thinks another change is needed. “The original toolkit was about introducing landlord models, but that has been implemented in most countries now. I think we need to talk about changing and adapting governance,” he added.

Assessing port competitiveness

This work will therefore play into the plans for the annual IAPH World Ports Conference to be held in May 2022, for which the World Bank and IAPH are partnering to find solutions for some of the aforementioned — and current — issues. “It’s due to the current situation we’re in with the supply chain problems popping up all over the world that we thought we could do something with the conference.

But rather than having the usual topics and good speakers, let’s make it more agenda-setting and try to identify what sort of priorities do we have when it comes to competitiveness of ports and as part of the wider supply chain,” Patrick said. He continued, “Based on work by the University of Antwerp and the World Bank, we’re preparing regional workshops in February and March. They will be virtual and for every region, we will focus on the most pertinent issues with a designated expert. And then, we bring these findings to Vancouver for the World Ports Conference to formulate an action plan.”

This plan is approved by Martin. “I think it’s an excellent opportunity for us to collaborate with the IAPH and to complement the strengths that it has in this area

by bringing in our regional strength and knowledge within different subregions and mobilizing clients to join in the regional workshops.”

Martin hopes that it will also identify both the agenda for the conference but also, potentially, for policy and potential business development and raise awareness about those amongst World Bank client countries.

He concluded, “There are significant synergies on both sides and we’re happy to work with an excellent partner like the IAPH and contribute to a conference that has the reach and the reputation of the World Ports Conference.” ■

“Ideally, the reform of the port toolkit would be done by us and the IAPH”

MARTIN HUMPHREYS
Economist
World Bank



PERSPECTIVE FUEL SAFETY

Enabling a safe transition to new marine fuels

A recent study completed by the Harbour Master's Division of the Port of Amsterdam in collaboration with the classification society DNV has concluded that ports looking to alternative bunkering fuels will need to pay special attention to spatial safety when planning ahead for locating and building future bunkering infrastructure.

The report was commissioned in 2020 by the Port of Amsterdam and focuses on the spatial safety aspects of future fuels such as hydrogen, methanol, and ammonia.

Henri van der Weide, environmental policy adviser to the Port of Amsterdam commented, "Current legislation and competing space for urban and industrial use demand that ports look far ahead when considering the location, design, and implementation of future bunkering infrastructure for ships."

"As mentioned by IAPH in its recent submission to the IMO on reduction of greenhouse gas emissions from ships, the lower energy density of new marine fuels such as ammonia and hydrogen compared to fossil fuels is likely to result in more frequent refueling of ships as well as the development of more decentralized zero-carbon bunker fuel hubs," he added.

The Port of Amsterdam, therefore, decided to commission the joint study with DNV to look at expected new marine fuels of the future and assess the risks in granular detail for each one of them.

With considerable experience already in determining spatial safety risks for LNG bunkering operations, the risks of bunker scenarios with the new fuels with flow rates of 400 m³ and 1,000 m³ per hour were determined as follows:

- Spatial safety distance: this distance is determined by the probability of a single fatal accident per year occurring to one individual in a million at a specific location where that person is outside 24/7, 365 days per year.
- Focus areas: the area where people are located inside buildings, which are susceptible to accidents with hazardous substances, such as fire, explosion, and toxicity risk.

Spatial distances required

The study found that with the low- and high-flow rates, spatial safety distances needed for the new fuels are comparable to LNG bunker operations with one exception, that of pressurized ammonia.

The spatial safety distance for pressurized ammonia was well over double of any other fuel, including refrigerated ammonia.

ABOUT THE AUTHORS



HENRI VAN DER WEIDE, has been the environmental senior policy adviser within the Harbour Master's Division for the Port of Amsterdam since 2009. He also serves as the chair of the IAPH cruise project and has an active role in co-designing ESI 2.0.



PETER ALKEMA is a strategic policy adviser and project manager within the Harbour Master's Division of the Port of Amsterdam. Previously, he was an officer and captain in the merchant navy and offshore industry for over 20 years. Alkema also chairs the IAPH Clean Marine Fuels working group.



Similarly, when looking at the focus areas, it became clear that for refrigerated and pressurized ammonia, despite having zero risk of fire or explosion, the maximum distance from bunker hose to the focus area boundary was up to between 1.4 and 2.6 km for toxicity. This exceeded by far any of the other focus area distance parameters for fire and explosion for all other alternative fuels such as hydrogen, methanol, and LNG, all of which fell within a 0-448 m range.

This is due to the generation of a large toxic cloud in the event of a hose rupture.

The report also concluded that the bunkering of gaseous hydrogen is unlikely to take off owing to the low energy density, which is only about half compared with the other fuels, and low bunkering flow rates.

Policy adviser to the Port of Amsterdam, Peter Alkema, who is also the chairperson of the IAPH Clean Marine Fuels working group, commented on this finding, "Specialists know gaseous hydrogen is not going to be a fuel for seagoing shipping. For inland shipping, and small crafts of port service providers gaseous H2 may very well be a good solution."

Alkema also said that overall, "the findings have helped us understand better what we have to do when considering a berth location for this new fuel bunkering, especially when port terminal infrastructure is predominantly located in the vicinity of urban or business office locations."

Pictured: Fuel bunkering facility in port.
Photo: Getty Images/VanderWolf-Images

"It will allow us to add spatial safety considerations to the many other parameters needed when a port considers whether to plan for a bunkering hub. We hope this report will help other ports in their ambition to advance the transition of the maritime industry towards cleaner fuels for decarbonization and air quality improvement," he added. Alkema, therefore, encouraged readers to download the report from the WPSP website (see link below).

In the case of the Port of Amsterdam, Van der Weide feels that, "Methanol will become an important fuel. Port of Amsterdam is a multifuel port, meaning that we do our utmost to facilitate the bunkering of any new clean fuel. The reports help us have a better understanding of where to mitigate the risks."

The Dutch ports of Amsterdam and Rotterdam are key contributors to the work of the IAPH Clean Marine Fuels working group, which is in the process of digitalizing its widely used cryogenic bunker fuel lists, bunker audit tools for candidate terminal operators, and alternative fuel terminal readiness guidance, beginning with LNG and being adapted for liquefied hydrogen, methanol, and ammonia. ■

Download a copy of the report here:
bit.ly/BunkeringSafety



PROJECT FOCUS CENTRAL AMERICA

Living along the lifeline

The Panama Canal exerts a powerful influence over Central America's ports—creating opportunities of transshipment and bunkering – that is if operations are being modernized and digitized

GORDON FELLER

The proximity of the Panama Canal has clearly had some positive effects on Central America's neighboring ports in the past. For over a century, the canal has been playing a paramount role in the connectivity of the Pacific and Atlantic trade.

Throughout these years, the ports surrounding the canal have benefited from their direct access as well as their container transshipments.

For a more complete understanding of the significance of the canal's impact throughout Central America and how trade can be improved in future, *P&H* spoke to five of the region's leading executives.

The first in this illustrious round is Carlos Urriola, president of terminal operator SSA Marine, prior to taking on his SSA executive role, was president of the Manzanillo International Terminal (MIT), which SSA owns. Before he stepped into that role, he was an executive with the National Port Authority of Panama and served as president at the Maritime Chamber of Panama and the American Chamber of Commerce of Panama.

Pictured: Aerial view of Panama Canal on the Atlantic side.

Photo: Getty Images/dani3315



Going digital

While there has been good progress, he believes there is a lot to do for the region. "We must move to paperless and electronic procedures with all government agencies. During the last 18 months, there have been considerable advances in this area, but we need more. Bottlenecks at the borders must be eliminated."

Juan Pablo Carrasco de Groote, president of the Board of the American Chamber of Commerce Guatemala, voiced similar tones. Guatemala's public institutions have been working to modernize customs procedures. Part of the focus has been on curbing smugglers and limiting the flow of counterfeit goods. Slowly, some improvements are being implemented at ports, but there is still a pressing need to apply new technologies to facilitate clearance, he said.

For de Groote, the Central American Customs Union is a tool to be taken advantage of. According to him, the union has brought benefits in terms of efficiency in mobility of goods at the borders. According to data from the Central American Integration System that allows for free trade, customs clearance times were reduced from an average of 55 to 6 hours.

Chris Connor, president and CEO of the American Association of Port Authorities, however sees two main customs-related challenges facing Central America's key ports. For him, the Central American Customs Union is the first. According to Connor, it is not an efficient instrument and has too little capacity to enforce rules. The second improvement needed is what he called "the establishment of single windows of commerce, with the implicit technological development and digitalization of customs processes."

With a paperless process in place, the benefit to exporters would be significant, according to Antonio Dominguez, Maersk Caribbean's managing director. In his point of view, "the pandemic has accelerated the use of technology – and there is a breaking point in the industry that demands a clear signal from all the players involved."

A major connection

Smart logistics now dictate that goods enter through Panama's free trade zone, after which they are distributed by land to the rest of Central America.

For each of the Central American economies, access through the canal is therefore unavoidable, especially since the two key trade routes for South America's West Coast exports from Ecuador, Peru, and Chile are to Europe and the East Coast of the US.

Exports to those areas are varied. According to Otto Bottger, commercial director of DP World Americas, the focus of attention is on high-value perishables: avocados, grapes, berries, cherries, mangoes, bananas, citrus fruits, etc.

These travel in refrigerated containers and are of great importance to local economies. The other goods exported include wine, coffee, cocoa, preserves, other foodstuff, as well as minerals.

"The focus of attention is on high-value perishables: avocados, grapes, berries"

OTTO BOTTGER, commercial director of DP World Americas



Pictured: Shoreside loading equipment at the port of Quetzal in Guatemala.

Photo: Getty Images/todamo

When it was completed in June 2016, the canal expansion allowed for a dramatic increase in the ship size capable of crossing it. Since the opening of the new locks, Bottger pointed out something positive for ports, "more cargo is concentrated in fewer ships." However, he acknowledged

ports are anxious about the fact that their key cargo handling equipment, such as ship-to-shore gantry cranes, need to be upgraded if they are to handle these new ship sizes.

The only major trade route, which is not impacted by the canal is the flow from Asia to South America's West Coast. South American countries conducting West Coast trade are doing so with few or no trade restrictions – with Chile and Peru as standouts. They have signed free trade agreements with most of their trading partners.

Every growing middle-income economy has a permanent need to develop more infrastructure, and the port sector is no exception. Bottger is mindful that, "despite considerable investments made about one decade ago, port capacity is fast reaching saturation, and a new wave of expansion will be necessary in the coming years."

This is why several companies have major expansion projects that are currently in motion, or which are deep in the planning process.

A prime example

The dynamic relationship between Panama and Guatemala is a rather interesting case in point for the current port infrastructure debate.

In de Groote's eyes, Guatemala "serves as a transit bridge for goods coming from Panama and other parts of the world to North America." Of course, Guatemala has its own ports, and this fact allows this small country to receive goods directly from Asia via Puerto Quetzal, from Europe and the US via Puerto Barrios and Santo Tomás de Castilla. De Groote believes that it is "unfortunate" that even though Guatemala is very close to Panama, its ports lag in their response to current trade needs: they do not have the capacity to receive Panamax ships, those that can move 4,500 containers. The same is true for the larger post-Panamax ships, with capacity of 14,000 containers.

De Groote therefore acknowledged that Guatemala's port infrastructure is facing challenges. "The country's port system has reached occupancy limits, well above 60%; they have reached congestion points that make them less efficient. Recently, the National Port Commission gave a presentation, which confirmed that these ports are reaching critical operation levels, since the standard is 50%," he said.

The main ports of Guatemala, Quetzal, and Santo Tomás are in a state of crisis, mainly owing to the lack of cranes, machinery, and equipment for the movement of cargo. De Groote said that this is "forcing shipping companies to transfer their operations to other terminals," which are also saturated. The Quetzal Container Terminal, located on the Pacific coast, is the country's only automated "next-generation terminal" and it alone can accommodate larger vessels.

More work needed

In Connor's view, the most urgent infrastructure challenges facing ports in the region include a "lack of efficient land connectivity throughout the region", as well as the need for strategic establishment of dry ports along the Isthmus of Panama. He added that addressing these issues is a "must" for those who want to enable the supply chain to handle even greater capacity.

According to Dominguez, "We see clear signals from port authorities and governments to enhance their port operations in the region to remain relevant for customers, which is key in the efforts to provide an end-to-end solution in container logistics."

Connectivity with the Panama Canal has been reinforced by terminal infrastructure investments, such as the \$1 billion Moin Container Terminal in Costa Rica. For Dominguez, "these projects are a clear signal that international trade requires a constant improvement in the services and capabilities that the ports can offer," and that they are part of a larger Central American logistics ecosystem.

Leaders like de Groote have been hoping to see, for example, investments flow into dock expansion and advanced equipment – both will permit cargo to be maneuvered and expedited. "Commercial growth must be combined with the growth of cargo reception areas at each port, since this provides the necessary space for containers," he said.

Urriola also reminded readers that the focus not only aims to improve infrastructure inside the port, "but also outside.



Roads and railroad must modernize. We must work to expedite all of the processes that effect cargo movements."

Looking ahead

"The canal's proximity to other Central American ports has left quite a positive impact. There's a consensus that growth should occur as a zone since isolated ports, however efficient they may be, only compete for the same share of business that exists today. Those ports that experience integrated development by regions, they grow business," Connor said.

In the coming years, he anticipates that there will be even more growth and positive development, "We envision an efficient port region with various alternatives, and Central America – including Panama in this context – will present itself as a competitive logistic zone of interest for world trade and transshipments." Additionally, Dominguez mentioned that, "Port infrastructure is now in the center of the conversations when addressing commerce growth in the region."

At the highest levels of both governments and businesses in Central America, there is clearly an urgency on improving terminals, port services, security, and safety. Since the logistics chain connects all the dots, it is not sufficient to merely see one port improve its capabilities, but as articulated by Dominguez, "If there is a clear goal to take full advantage of the assets, then the surrounding network should be adjusted accordingly." ■



Among the many things, we have learned since the start of the pandemic, the past year has probably shown that being too confident about the resilience of your operations can end badly. It is therefore pertinent to be careful to single out a region whose port system can mitigate changes at a minute's notice.

While there are a lot of measures that need to be taken to improve the stability of the supply chain, there might be regions coping relatively well among the current disruptions that we face.

For example, of all the global regions, I would argue that the Middle East and Arabian Gulf region is probably in the best shape to handle a surge event under the current conditions, for the simple fact that the rest of the big trade routes are currently clogged up.

Modern and digitized ports such as Jebel Ali and Abu Dhabi serve as examples where port community systems, import, export, and transshipment cargo flows are better orchestrated and funded than in other regions of the world.

This is due to the fact that their efforts to facilitate trade are initiated at top levels of government in collaboration with all the other stakeholders involved.



We find another example for this in the highly digitized Singapore. This is less evident in more complex governance environments and speaks to the benefit of keeping organizational structures flat.

It is therefore not only important to use tools such as digitalization, which we have seen progressing over the past 18 months, and which is almost hailed as silver bullet by some.

Countries that will be successful in coping with surge events will also be those that look after its other valuable tool: its workforce.

It's part of the risk and resilience strategy of every company, and that includes ports, to have measures on the safety of its staff in place.

Worker shortages can quickly disrupt entire operations as evidenced by the many port closures we have seen over the pandemic.

Countries that therefore do not allow crew changes or organize the unbureaucratic vaccination of seafarers and port workers show a lack of smart management.

Doing so does not only emphasize how important the human side of the industry that faces increased automation still is but it is also the only option to ensure business continuity. ■



THE DEBATE

Given the capacity crunch we are seeing in the port landscape, how prepared are port systems to deal with surge events?



JAN HOFFMANN | Head, Trade Logistics Branch, Division on Technology and Logistics, UNCTAD



Over the past decades, we have seen improvements in port management and performance. While historically, a ship spends two-thirds of its time in port and one-third at sea, following ever faster turnaround times, today it tends to be the other way around.

Unfortunately, in times of COVID-19, ship turnaround times have again increased. Globally, the median time a container ship spends in port went up by 12% between the first half of 2019 and the first half of 2021. As port authorities, operators, and workers need to apply social distancing and avoid contagion, processes have slowed and the movement of transport workers became restricted. Now, a typical container may spend 20% longer in transit during a door-to-door transaction than pre-COVID-19. This also means that we need 20% more containers in total, which take time to be built and delivered.

When COVID-19 struck, port authorities, operators, and workers were reminded of the advantages of digital processes. Customs automation, single windows, pre-arrival processing, and trade information portals are in demand. Border agencies face the challenge of expediting imports, exports, and transit, while ensuring epidemic prevention and providing adequate customs clearance and compliance controls.



At UNCTAD, we are implementing a project on transport and trade connectivity, which aims at helping developing countries keep ships moving, ports open, and trade flowing in times of the pandemic. The initiative addresses three priorities. First, reducing physical contact by facilitating the flow of goods without spreading the virus. This is done by implementing UN conventions and standards for seamless electronic exchange of data in digital transport corridors, border crossings, and trade operations.

Second, seamless connectivity that focuses on eliminating obstacles to cross-border trade and transport operations. This aims at promoting synergies among border agencies by empowering national trade facilitation committees, improving customs automation, and identifying and overcoming non-tariff barriers.

Third, collaborative solutions to strengthen regional and sectoral cooperation on transport, trade, and logistics.

Ports and border agencies are advancing with reforms at a higher speed than in pre-COVID-19 times. While we certainly hope that the pandemic will be overcome as soon as possible, we also hope that seaports will benefit from the reforms undertaken during the pandemic. Put differently, we need to lock in the progress made during lockdown. ■

EIGHTY THREE

Readership results: Given the capacity crunch in ports, is your country's port system prepared to deal with surge events?

83%

17%

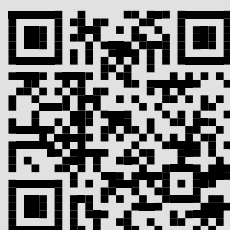
JANUARY/FEBRUARY
PORT INFRASTRUCTURE

POLL RESULTS

A confident win for the pro-side. About 83% of poll respondents are saying that their country's port systems can withstand surge events. Following on from criticisms from stakeholders along the supply chain over the past months that port infrastructure is unprepared to deal with the increased import traffic in some countries, this might be a surprising but defiant response. While amending existing infrastructure to add capacity to a port takes several years, short-term wins have been gained over the course of the pandemic by building up the digital infrastructure to exchange trade documentation. With this tool, readers might feel confident to face the next disruption. ■

MARCH/APRIL | DIVERSITY

THE POLL



Have you seen women occupy senior C-level and board member roles in your port or port-related organization in the last three years?

Following on from similar initiatives to gauge the involvement of women within the maritime industry and quantify where they work, for our next poll we would like to hear about the number of women that occupy senior roles within global port administrations.

For many companies, this is still not a priority or a mere tick-box exercise.

Having concrete data on the diversity of the workforce and how those that fare well in this regard compete against those that do not, is therefore important. It adds to the already well known fact that an inclusive port industry is also a resilient, competitive, and future-proof one. ■

Either scan the above QR code or use the web link below to submit your answer to this month's reader poll:

🌐 bit.ly/IAPHMarchAprilPoll



Iwan van der Wolf

Establishing smart ports is the aim of Netherlands-based Portbase, a non-profit organization at the heart of a port community system built around digital data flows and logistics. CEO Iwan van der Wolf charts its development for *P&H*

TONY SLINN

The foundation for Portbase's current success was laid 20 years ago when a start was made on digitizing core processes and accompanying paper and communications flows in Dutch ports. "From that moment on, it became possible to supply data for various reports and notifications between companies and government bodies in an automated fashion," Portbase CEO Iwan van der Wolf recounted laying the foundation for the Dutch port community system (PCS).

Before Portbase, van der Wolf worked as a strategic change management consultant for PricewaterhouseCoopers, focusing on waterborne transport and airport management. He advised multinational corporations on location strategy; and ports, airports, and governments on management, development and privatization issues. "In one of these projects, for the Port of Rotterdam, I was responsible for creating the business plan for its port community system," he explained to *P&H*. After which he decided to join Portbase to help build this platform.

Portbase is a subsidiary of Port of Rotterdam, which owns a 75% stake, and Port of Amsterdam, which holds the remaining 25%. It was appointed as an implementing body to manage the digital port infrastructure and core processes in all Dutch ports. The ports fund this digital platform, while services are developed and cost-based for the community and paid for by users.

"At the core of our PCS is its ability to facilitate data exchanges between companies and the exchange of information with government authorities. In practical terms, this means cost savings through less administration, faster turnaround times, higher degrees of utilization, and numerous advantages in supply chain quality, reliability, visibility, and security," van der Wolf explained. He added that although the Dutch government does not fund the PCS, Portbase has its backing for a platform to foster public-private cooperation in the logistics sector.

The latter is reflected in the broad range of PCS members, from agents; barge operators; shipbrokers; to terminal and ship operators; customs; and freight forwarders.

While the company connects these players regionally, it is not planning on expanding its service platform to other ports in the EU – albeit supporting data exchange. "We are strongly focused on our own community," van der Wolf responded. "Together we are aiming to create the world's smartest port. However, we are constantly seeking ways to support them. As similar PCS initiatives exist in most EU countries, we focus on connecting with them – including via the International Port Community Systems Association – and search for cooperation" he added.

Connecting the dots

To further this national digital transition, Portbase developed a digital twin concept. "The data and coverage ratio in our PCS is of great value to any party interested in innovating and improving logistics. Core processes data constitutes the starting point for new, smart solutions." Portbase stimulates this development and, with the owner's permission, makes it possible for companies that require data and connectivity to use this information, creating a connection between existing customers, new players, and the logistics ecosystem.

"Portbase also ensures that the Netherlands constitutes an attractive logistics data hub for major international players that want to do business in and via the country. Such players seek to connect to systems in locations where local legislation is regulated and where existing networks have good geographical coverage," van der Wolf said.

Countering challenges

While Portbase has a steady growth of members, it does encounter challenges in convincing ports and businesses of the need for this digital transition. "Challenges vary, from small businesses that are willing but don't have the time or money, to major corporates with headquarters in other

countries that have a different policy than we would like to see in the Netherlands. But we try to help all businesses, no matter how small, by offering them an application called IAMconnected that ensures port applications are used in a secure manner and give access to digital port and logistics services."

Brexit presented itself as "a huge challenge" according to van der Wolf. The Portbase CEO said, "Brexit created a new reality for the logistics chains between the Netherlands and the UK. However, our efforts in creating a chain solution with all parties involved have paid off. There is one system and way of working for transport to and from the UK in the Dutch ports."

He explained why this is such an achievement. "In the UK, there is no central system for all ports and there was still a lot of uncertainty due to the political discussions."

Approaches also differed, "We started preparing 30 months in advance, working with Dutch customs – the UK started in the final phase. It was hard for ports to turn their operations around in such a short period and unfortunately, that led to some disruption."

With the second phase of the UK's border operation model having gone live in January 2022, however, we'll see if the transition will be successful."

Looking past borders

Finally, *P&H* asked van der Wolf about his ambitions to create the smart ports of the future and the requirements needed to realise this. "We foresee a growing importance of federated data sharing in which regional platforms – such as PCSs – cooperate and are connected to global platforms. Both ports and logistics players will need to invest in digitization and platform development, while pursuing a sector change that will be driven by the strong supply chain developments in play – we have to look past our own borders to form alliances so that we all benefit," van der Wolf concluded. ■

"We started preparing 30 months in advance – the UK started in the final phase"

INTERVIEW IWAN VAN DER WOLF

Photo: Portbase

Mind the gap

With the status of port infrastructure having come under scrutiny in recent months owing to the COVID-19-induced capacity crunch in shipping, *P&H* looks at investment data and future spending needs for different countries

INES NASTALI

The Organization for Economic Cooperation and Development (OECD) data for infrastructure spending in ports in 38 countries excludes mainland China, one of the biggest spenders.

Notably, through its Belt and Road Initiative, mainland China invests in Africa and Europe, but the region has also announced programs for its own infrastructure in 2020 to counter the pandemic fallout. “Nearly all of mainland China’s 31 provinces, municipalities, and autonomous regions have announced key infrastructure investment plans for the next five to seven years, covering 24,515 projects at ¥43 trillion (\$6 trillion), of which around 25% will be spent on transportation projects,” according to Moody’s Investor Service. “Future investment for the port sector will focus mainly on connectivity between the ports and surrounding railways and highways, smart ports that leverage disruptive technology and automation, and strategic regional integration and industry consolidation.”

The approach to secure the inland infrastructure of a port might be well-advised given the trend of reshoring of industries that has emerged following the mainland China-US trade war, Brexit, and the observed impact of the COVID-19 pandemic on the supply chain.

So, while the number of ultra-large container vessels is growing and deeper ports will be needed, there is also a business opportunity for smaller ports to cater to transshipment as well as higher frequency traffic.

Top 10 spenders on port infrastructure in 2019 – and their future spending outlook

1. Japan

The country is hard-pressed to equip dikes, port seawalls, and other infrastructure against disastrous typhoons in future.

2. Canada

Having ramped up public spending recently, Canada spent three times as much in 2019 as in 2010.

3. Spain

The 2021 budget for the port system was presented at the end of 2020, with an investment of over \$1.2 billion for port terminals, enhancements in land connectivity, environmental sustainability, and digitalization.

4. South Korea

The national Ministry of Oceans and Fisheries announced a 10-year plan to invest more than \$6 billion into the redevelopment of ports around the country at the end of 2020.

5. Germany

The Zentralverband der deutschen Seehafenbetriebe, an association of German seaports, demanded in November 2021 of the newly formed government that investment into rail hinterland connections are being made.

6. Mexico

In July 2020, Mexico announced in July 2020 its Transportation Program 2020-24, consolidating the port network to bolster regional development, establish industrial nodes, and improve connectivity to strengthen the regional market.

7. Russia

The country approved an investment program in September 2021 focuses on an improved truck infrastructure to and from seaports.

8. France

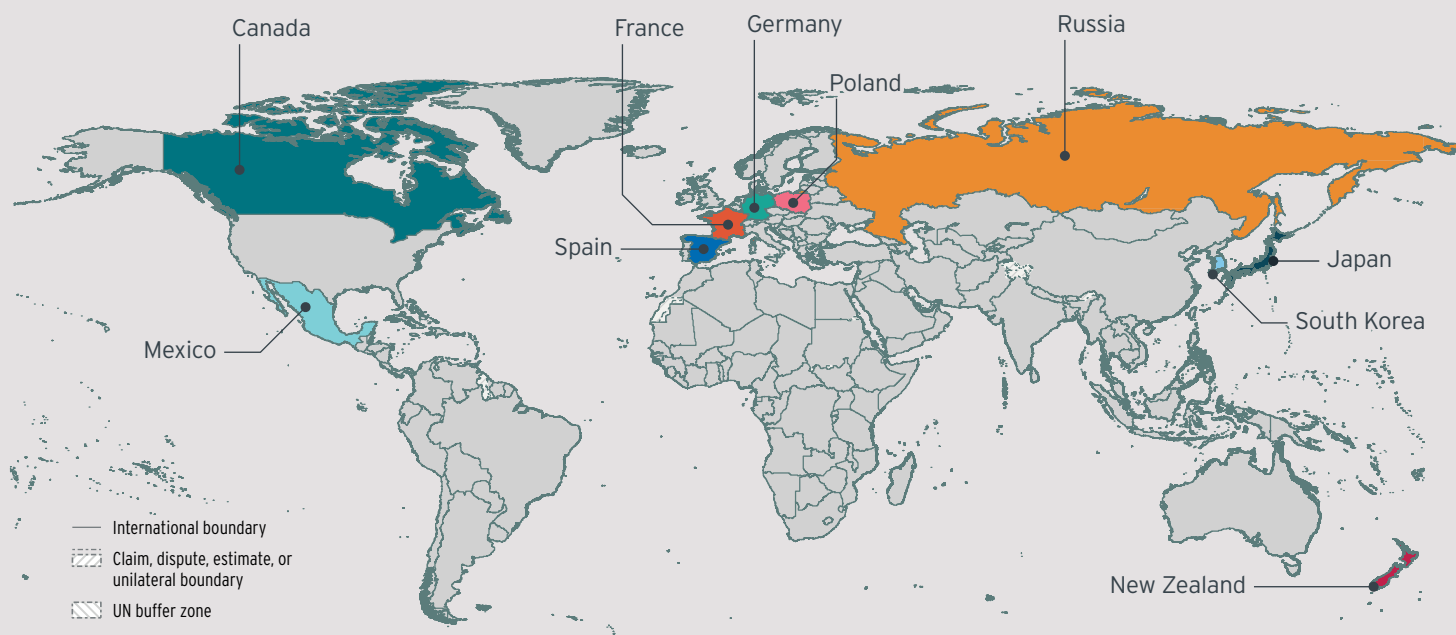
To counteract the recession, France developed its Plan Relance. It envisages \$118 billion in investments. Some \$4.6 billion of the total is directly linked to infrastructure works.

9. Poland

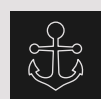
To make its main port in Gdansk more competitive until 2030, the port invested \$2 billion and also plans to strengthen the inland waterways to prepare for a modal shift.

10. New Zealand

The country’s total net capital investment – including in rail, roads, water, and health – over the next five years is close to \$60 billion. In the past, ports received the smallest share of similar investments.



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Ports

Country	Investment in 2019
Japan	3
Canada	1
Spain	1
South Korea	0.977
Germany	0.580
Mexico	0.551
Russia	0.533
France	0.342
Poland	0.277
New Zealand	0.236
Total billion \$	8.5



Road

Country	Investment in 2019
China	691
United States	106
Germany	19
South Korea	15
France	11
United Kingdom	11
Canada	9
Russia	8
Spain	3
Sweden	3
Total billion \$	876



Rail

Country	Investment in 2019
China	107
United Kingdom	15
France	13
United States	13
Germany	8
Russia	8
South Korea	7
Switzerland	3
Spain	2
Australia	2
Total billion \$	179

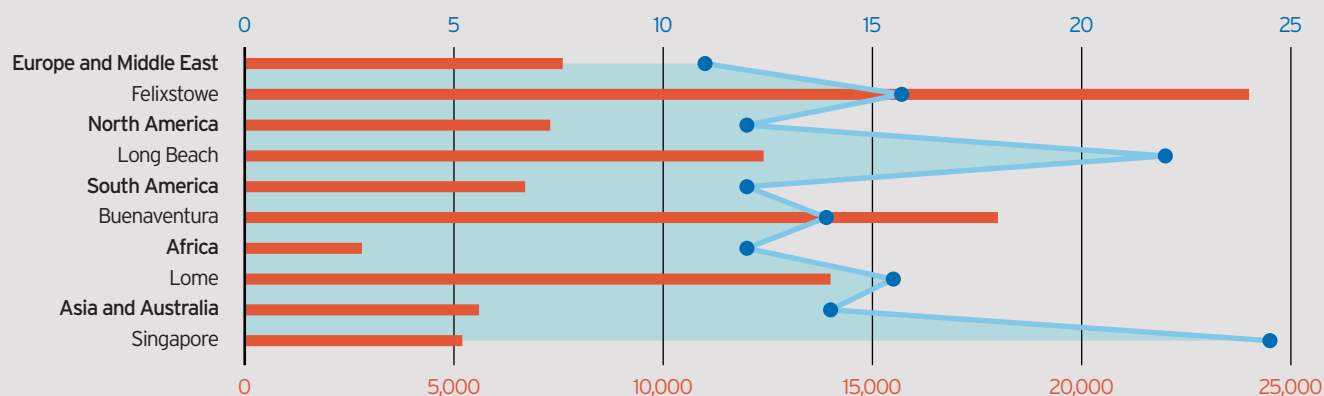


Air

Country	Investment in 2019
China	30.34
Japan	2.25
Germany	2.25
Canada	1.12
France	1.12
Spain	0.714
Switzerland	0.616
Russia	0.531
South Korea	0.515
Sweden	0.420
Total billion \$	40



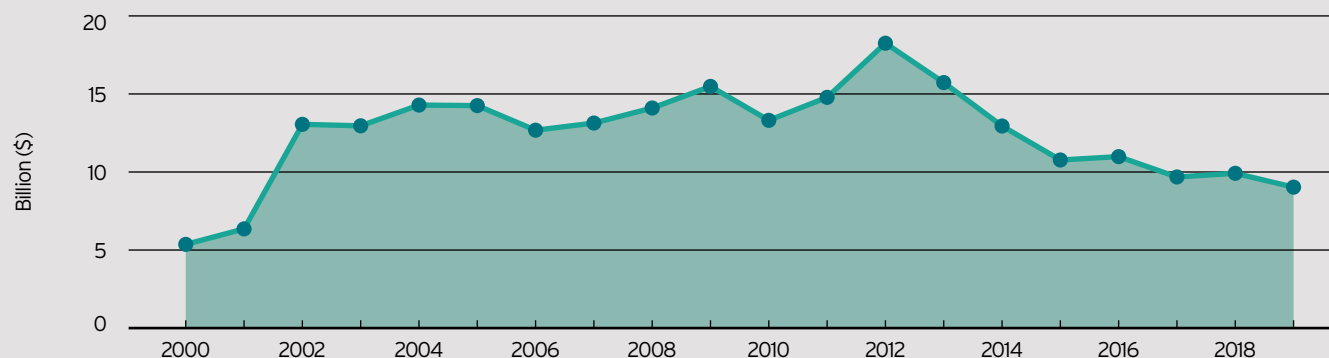
Average draft and average TEU capacity



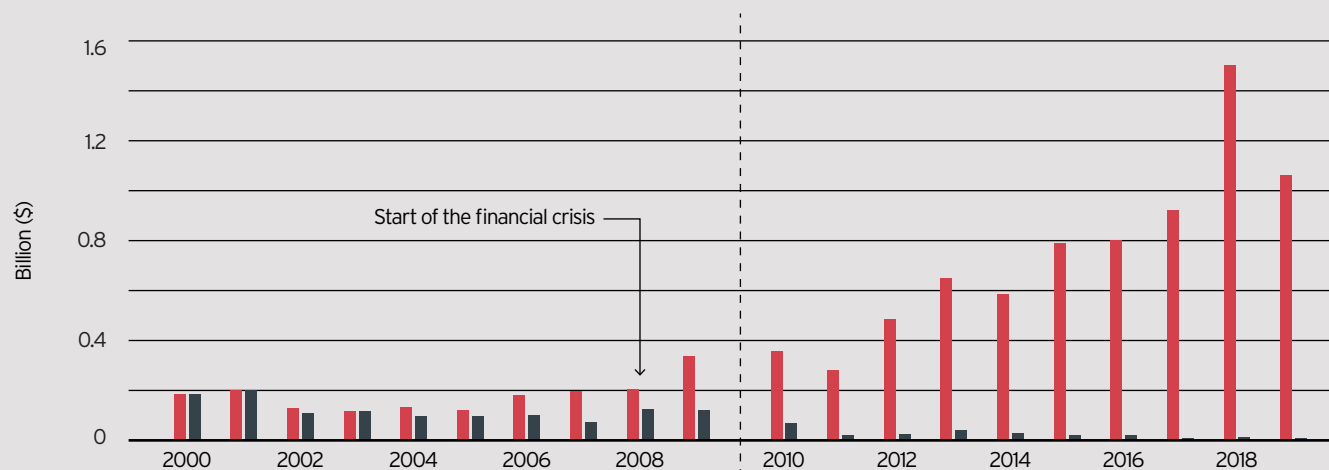
Source: IHS Market Ports & Terminals



Global spend on port infrastructure between 2000-2019



Canada's and Greece's spend on port infrastructure between 2000-2019



Source: OECD (2021), Infrastructure investment (indicator), doi: 10.1787/606ce3ad-en (Accessed on 22 November 2021).

- Average draft (meter)
- Average TEU capacity

Global total spent \$266 billion

■ Canada	■ Greece
Total spent	Total spent
\$9.6 billion	\$1.5 billion

Both Canada and Greece showed a similar spending trajectory at the beginning of the century. A decade on, this split. The reduction in Greek spending from 2010 was caused by the financial crisis that hit Greece following the global recession in 2008. This ultimately led to Chinese COSCO taking over the majority shares of Greece's major hub Piraeus in 2016. And the country is keen to expand business with the Asian powerhouse. At the same time, Canada ramped up public spending. In 2016, the government introduced its Investing in Canada plan that will see \$10 billion of the \$180 billion fund invested in transportation until 2028.

This will be good news for ports that might lack the capacity or financial means to further upgrade their depth to receive bigger container ships.

Currently, the average depth for container ports by continent is around 13 m, to receive the currently largest ships with a capacity of more than 20,000 TEU a depth of more than 20 m is advised.

Additionally, sustainability will aid future port planning with \$1 trillion needed to decarbonize the sector. It is also expected that for scalability reasons, smaller ships that service the inland traffic will be equipped with alternative fuels first.

This is owing to new marine fuels having a lesser energy density than heavy fuel oil, so bunkering infrastructure and trade routes might be shifted to cater to more frequent refueling of ships.

Offshore energy project cargo presents another opportunity to enhance port business in this context.

Ports seeking private investment might be hard-pressed with the annualized risk-adjusted 10-year return for ports being up to -20%, according to the Dow Jones Brookfield Port Infrastructure Indices and EDHECInfra.

However, ports come last when looking at the bigger transport picture including road, rail, and air. The biggest share to upgrade infrastructure pertains to road and electricity access, according to the Global Infrastructure Outlook, published by Oxford Economics and the Global Infrastructure Hub. "In absolute terms, we find that almost three-quarters of the \$14.9 trillion global infrastructure gap between the two scenarios – current trends and investment needed – is attributable to the road and electricity sectors."

In terms of regions, the Americas and Africa face the biggest gap between current spending trends and needs with around 40%, respectively.

While the US is a member of the OECD, port infrastructure data is not published for the country. However, according to the Infrastructure report card of the American Society for Civil Engineering, ports and port tenants plan to spend \$163 billion between 2021 and 2025.

The recently approved US infrastructure bill will see investment of \$17 billion in port infrastructure.

According to the OECD, the top 10 countries – except for New Zealand – that invested most in ports in 2019 have also been identified within the top 20 countries with the biggest infrastructure investment requirements in the run-up to 2040 by the Global Infrastructure Outlook, which, for its port analysis, also looked at OECD spending data.

This might be pertinent as at the same time, "The gap between the two scenarios is proportionately greatest in the roads and ports sectors, where investment needs are just over 30% greater than the estimated spending under current trends." ■

The future of port infrastructure will be a key focus areas for the 2022 World Ports Conference, which will take place 16-18 May in Vancouver, Canada.

Register for the conference and the eight agenda-setting regional workshops that are planned between 8 February and 29 March via the conference website:

🌐 www.worldportsconference.com

QUICK 10



JOSÉ FIRMO
Port of Açu CEO



Nº1

Favorite app
Navionics! I know I am in the right place when I am using it.



Nº2

Something unexpected that brings you joy
An honest, relaxed, and joyful smile.



Nº3

When you are not working, how do you like to spend your time?
Over, under, or around the ocean.



Nº4

An item you cannot live without and why?
A friend. The most useful and required item to be happy in life.



Nº5

What is a quality that impresses you in a business partner?
Transparency. It is easier, constructive, and efficient to work with and to deliver outstanding results in an open and transparent environment.



Nº6

If you could spend a day in someone else's shoes (from the past or today), whose would they be and why?
I would spend a day in my father's shoes at 40. I would learn so much about him and myself.



Nº7

If you could time travel, where would you go and what would you do?
Sail around the world around the equator (Latitude between 20° N and 20° S).



Nº8

Who is your dream dinner date and why?
Michelle Obama. I would really enjoy discussing the balance between achieving your dreams while maintaining simplicity in life.



Nº9

If you could explore the oceans, go to outer space, or visit 50 different countries, which one would you choose and why?
Ocean, ocean, and ocean... because it is the ocean!



Nº10

What is the best advice ever received?
"Live as if you were to die tomorrow. Learn as if you were to live forever" - Mahatma Gandhi.



SANJAM GUPTA
Director, Sitara Shipping

THE COLUMN

Trying on a new hat

In recent years, there have been accelerated changes to the logistics environment compared to the last two decades. As a customer of the port we find that, from its traditional role, ports are now playing a larger role in the entire supply chain network. While some want to move away from their identity as a port operator, some are rebranding themselves as a logistics provider.

They adopt different strategies of backward and forward integration into supply chains while maintaining a top-notch customer support by creating value in the form of valued-added activities.

Customer orientation is key and we find ports have been offering a bouquet of products for us and the various stakeholders, some of which are also in certain segments competing with the port wearing their new hats as logistics providers.

We find that port operating companies and port authorities are striving to maintain a balanced focus on both effectiveness and efficiency aspects of performance management and improvement, aiming to meet the requirements of customers and other supply chain actors.

New horizons

We see a horizontal and vertical integration taking place. Our clients, the shippers, play the key role in determining port choice. We find that it is important for the port and its partners to offer greater value to their users compared to other competing chains. The role of ports has evolved and this plays a crucial role in supporting local businesses.

Here in India, the government via its ease of doing business initiatives has focused on improvement of infrastructure at our premier Jawaharlal Nehru Port Trust (JNPT). Some of the important initiatives are:

Firstly, JNPT has developed a centralized

parking plaza with an objective to provide parking facility for trucks carrying export containers and enable completing pre-gate entry formalities and documentation for export under the single window system.

Secondly, to bring all regulators near the port area, the port has allotted office space to the Food Safety and Standards Authority of India, animal quarantine, plant quarantine, textile commission, drug controller, and wild life bureau.

There are also plans to develop a port-based special economic zone as well as dry ports at Jalna, Wardha, Nasik, and Sangli for hinterland cargo.

There have also been huge benefits for us stakeholders and clients due to the simplification of processes such as the inter-terminal transfer of tractor trailers, direct port delivery and entry, and establishing an e-marketplace transport solution for JNPT.

Furthermore, due to digitization of activities, dependence on manual transactions have been done away with and forms can be filled in online. Part of this is also the introduction of an RFID system initiated for gate access, shipping lines can facilitate the issuance of E-DO via the port community system platform.

Lastly, container tracking was introduced for the first time in India along with an app, which provided much support to the trade in these trying pandemic times. ■

“We see a horizontal and vertical integration taking place”

ABOUT THE AUTHOR

SANJAM GUPTA is a director at Sitara Shipping. She is also a founding member of the Indian chapter of the Women's International Shipping and Trading Association.





PROJECT FOCUS CHILE

Overcoming obstacles

A cocktail of environmental and competition concerns have hampered the ambitious Chilean port development plans for several years. Still, hopes are high for a long-awaited mega port

VLADISLAV VOROTNIKOV

The Chilean government estimated that the demand for handling containers in its five ports on the Pacific coast will exceed the current maximum port handling capacity around 2025, so to ensure the continuing growth of the national foreign trade, the country's port offer must be upgraded significantly.

The \$3.5 billion Outer Port project – after long discussions to be set at the main port in San Antonio, in the central Valparaíso region – is slated to act as a remedy to the country's throughput woes.

The current plan envisages building two major automatic container terminals with a berthing length of 1.7 km each, which will allow simultaneous berthing of four Class E containers.

According to the Chilean company Empresa Portuaria San Antonio, it will be the fourth-biggest port in South America in terms of container traffic and the first in Latin America with enough storage capacity to operate 6 million TEU per year. Infrastructure plans are also ambitious. The new port's design includes the construction of 3.9 km of breakwater, 13 million m³ of dredging, 4 million m³ of riprap, and 13 million m³ of backfill.

Pictured: Port of Valparaíso and Ascensor Artillería Lift at Cerro Artillería Hill - Valparaíso, Chile.

Photo: Getty Images/StreetFlash



Main port
 Port development
 — International boundary

Source: IHS Markit

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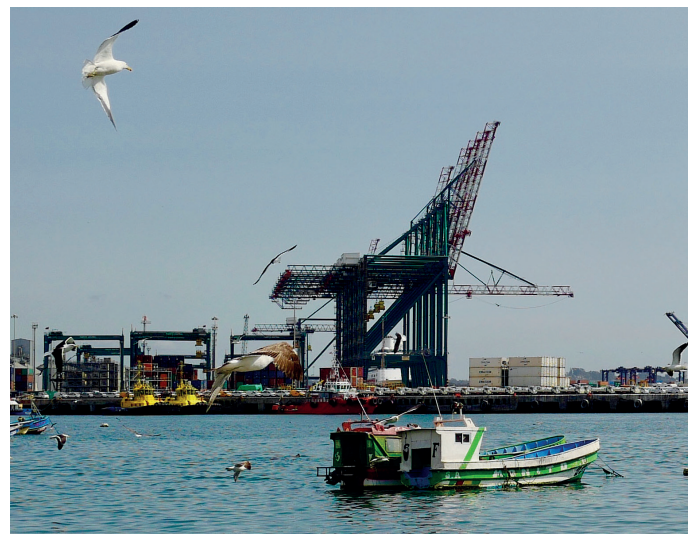
The development plans involve the construction of an access channel, a stacking area, an inland dock, and railway access for each of the terminals. A semi-automated internal operating method will be implemented, with ship-to-shore cranes, rail-mounted gantry cranes, straddle carriers, and yard jockeys.

Lingering environmental concerns

The biggest challenge surrounding the decision on where to build the port, which was decided in 2018, related to concerned citizens. Different communities and organizations are on alert owing to the environmental effects that the project would entail.

The large-scale infrastructure work will require – among other things – quarries that allow the acquisition of material for the construction of the esplanades of the two terminals. This would mean filling the Llole lagoon, a wetland area made up of three bodies of water located on the coast and within the current port area, between the mouth of the Maipo River and the southern sector of the port of San Antonio.

"The Chilean authorities have been reviewing this project since 2009 with the intention of anticipating a possible shortage of port infrastructure to meet the demand for cargo transfer, but avoiding the construction of white elephants," commented Ricardo Sanchez, senior economic affairs officer for the Integration of International Trade and Integration Division of the United Nations Economic Commission for Latin America and the Caribbean.



As explained by Sanchez, the demand studies that have been commissioned have shown that the window in which it is urgent to have the Outer Port in San Antonio has shifted. He claimed this is good news, considering that environmental studies in Chile – as in the rest of the world – take a long time and are subject to various delays.

"The San Antonio project has been the subject of multiple observations by environmental organizations, which the port authority has considered and incorporated into the project, and its addendum will be sent in May 2022 to the environmental impact assessment service, to continue with its processing," said Sanchez.

However, some analysts warned that there is a high risk the final environmental decision on the project will be made by the courts.

Overcoming stormy challenges

In addition, in the past several years, Chilean port development plans were primarily hampered by weather issues.

It is widely known that violent storms and huge waves regularly batter ports along the Pacific coast. This problem tends to worsen, assumingly owing to global warming. Official statistical information from the University of Valparaíso showed that San Antonio experienced 54 closures during 2020, more than in any of the previous years.

Suspensions of operations due to adverse weather conditions – mainly waves – severely complicate operations in the port of San Antonio, which according to the Climate Risk Atlas (Arclim), a project of the national Ministry of the Environment, will have the highest risk of closures among the various state maritime precincts between 2035 and 2065.

For instance, from May 2020 to May 2021, the port registered 1,842 outage hours, independent of the COVID-19 pandemic. This is more than double compared with 850 hours in the previous 12 months.

In May 2021, closing hours totaled 139, a figure higher than 51 hours in the same month of 2020.

The mega port project is planned to mitigate this issue through the construction of the breakwater alongside some other tools.



Pictured: The harbor in San Antonio, Chile.

Photo: Getty Images/mauinow1

Speaking during a press conference in September 2021, the president of Puerto San Antonio, Raimundo Cruzat, outlined that several additional steps aimed at overcoming the wave challenge had been taken.

In addition to the breakwater construction, the Port of San Antonio worked with the local maritime authority to raise the allowed wave height. As explained by Cruzat, some new technologies to be embarked on in this seaport "could allow operation in more restricted visibility conditions."

"We managed to raise the allowed wave height from 1.5 m to 1.8 m. We are presenting a maneuver study to be able to raise it to 2 m, we are implementing an electronic leading system that is like the instrument landing system of airplanes at airports, which will allow ships to operate in more restricted visibility conditions," said Cruzat. The new rules are expected to significantly reduce risks of closures, making operations in the port more predictable.

Competition is near

There are mounting concerns that in the case of further construction delays, trade flows destined for the mega port would be directed to the neighboring countries, primarily to Peru. "For many years, we have been losing time in a debate about where to locate this big port," Alberto Texido, an academic at the Faculty of Architecture and Urbanism of the University of Chile, said. "Valparaíso and San Antonio both have enough space to expand the existing port infrastructure and connect it with the interior territory." Consequently, "The important thing is to understand the ports of the central region as a system, which is connected and complementary. Both ports can grow in the logic of their bay capacity, connectivity, and the impact they generate – in the case of Valparaíso in the urban heritage area," he added.

"We have been losing time in a debate about where to locate this big port"

ALBERTO TEXIDO, academic at the Faculty of Architecture and Urbanism of the University of Chile

However, in 2016, then-presidents Evo Morales of Bolivia and Pedro Pablo Kuczynski of Peru agreed to facilitate Bolivian cargo access to the Pacific Ocean through the expansion of the port of Ilo. Both countries have also signed agreements to export Bolivian gas to Asia through Ilo. This project, to some extent, may become a competitor for San Antonio, just like the planned mega port of Chancay, Peru. With an estimated total investment of \$3 billion, it aims to become a hub for trade between Asia and South America.

"We do not have time. If we do not make firm and serious decisions to speed up port construction, and I am not speaking only as a transporter, but as a citizen of Valparaíso, this city will be a second Lota, which is one of the poorest municipalities in the country. This is going to be the case if we do not manage to reverse this situation and secure investments in the port," commented the president of the Regional Federation of Truck Owners, Iván Mateluna.

However, other port projects in the region also experience difficulties in overcoming the environmental concerns of ecologists and local communities. While, according to Sanchez, the Chilean port infrastructure, one way or another, will be in demand in the coming years. "Chile seeks to become an important actor in the agricultural world, as an agri-food power, which takes advantage of the counter seasonality with the Northern Hemisphere. Many of its products are in high demand, and special services such as the Cherry Express have even been generated," said Sanchez.

The San Antonio port project is likely to become a game changer for the entire port infrastructure in Chile.

"Chile's central macrozone will continue to be relevant as the origin and destination of containerized cargo, and other Chilean ports will likely become feeder ports, but it will all depend on how logistics are reorganized," Sanchez summarized. Their post-pandemic reengineering will be decisive in the fate of several Latin American and Caribbean ports and the world. ■

Plain sailing

In December 2021, Maersk introduced a new design for eight of its future 16,000 TEU container vessels that will be powered by carbon-neutral methanol.

The Danish shipping giant said this design allows a 20% improved energy efficiency per container compared with the industry average for this vessel size, which is hoped to save 1 million tons of CO₂ emissions per year once all eight vessels are in operation.

In addition to the future-proof propulsion, the vessels will look slightly different to the box-standard container ship. "The crew accommodation and bridge will be located at the bow to enable increased container capacity. The funnel will be in the aft, and only on one side of the vessel, thereby providing further space for cargo. This separation between accommodation and funnel will also improve efficiency when at the port," Palle Laursen, chief technical officer at Maersk said. This is due to no vessel equipment interfering with port operations on the starboard side.

The series, built by Hyundai Heavy Industries, comes with a dual-fuel engine that can operate on methanol and low-sulfur fuel. The vessels, the first batch order of its kind following Maersk's order of a methanol-propelled feeder ship in February 2021, will be able to complete an Asia-Europe round trip on green methanol. The first vessel is expected to enter into service at the beginning of 2024. ■

Pictured: Maersk's new generation, 16,000 TEU container ship that will run on green methanol.

Photo: Maersk







PERSPECTIVE PORT SUDAN

Trade under threat

Since 2019, port operations in Port Sudan, in Sudan's Red Sea state, have regularly been disrupted by protests and political violence, driven by intercommunal rivalries and evolving power dynamics across Eastern Sudan.

Separately, the Sudanese military seized power in a coup on 25 October 2021, derailing transitional arrangements made between the military and a now dissolved civilian government that had been sharing power since the ousting of former president Omar al-Bashir in 2019. On 21 November, ousted Prime Minister Abdullah Hamdok was reinstated in his position by the military, but protests have continued, rejecting any deal with the military.

Regardless of the new transitional arrangement at the national level, the Beja tribes, which blocked the port after the coup to gain economic benefits, are likely to continue to use Port Sudan as a pressure point to gain concessions from the government and their rivals.

The group blocked two key pipelines at Sudan's main oil terminal in the Bashayer port, through which landlocked South Sudan's oil supplies are exported, as well as a pipeline carrying imported crude oil to Sudan's capital, Khartoum.

Tribal troubles

For decades, Beja leaders, known as Nazirs and Omdas/Amaudiya (chieftains), have been appointed by the state as local administrators. They were the intended signatories of Eastern Track of the Sudanese peace agreement, known as the Juba Peace Agreement (JPA), signed in 2020 between the transitional authorities and most of Sudan's armed groups. The Beja leaders, however, rejected the JPA, complaining that it did not give proportionate benefits to the region, nor did it represent all of Sudan's eastern regions.

Instead, they have demanded the cancellation of the JPA's Eastern Track, and that 50% of state revenue collected from

eastern resources – notably agriculture, trade, and port activity – be allocated to East Sudan. The signing of the JPA by the Beni Amer tribe on behalf of the whole of the East most likely contributed to the Beja Nazirs' rejection of the agreement.

Prior to the Beja tribes' blockade in September, violent tribal confrontations had frequently taken place in Eastern Sudan since 2019, including in Port Sudan. Incidents were primarily driven by intercommunal rivalries between the two main groups, the Hadendawa and Beni Amer. Originally, both belonged to the Beja tribal group that was dominant across Kassala and the Red Sea states until a violent split.

Declaring themselves the true Sudanese, the Hadendawa moved to exclude Beni Amer from the Beja tribe, initiating an escalation of violence across the East. The violence culminated in July 2021 with the detonation of an improvised explosive device (IED) at Prince's Sports Club in Port Sudan, killing at least three people.



ABOUT THE AUTHOR

JIHANE BOUDIAF is a senior Africa analyst, Country Risk at IHS Markit. Prior, she worked in government affairs and policy as well as crime prevention. Boudiaf holds a Bachelor of Science in int. politics and Master of Science in supply chain management. She speaks Arabic, English, French, Italian, and Spanish.

While there have been no claims of responsibility, the attack highlights increased security risks in the city, and in the view of IHS Markit, it was probably aimed at triggering government intervention.

The increased levels of uncertainty resulting from the political changes with the October 2021 coup is likely to result in Hadendawa and Beni Amer seeking to assert their respective interests and secure vital resources, including land, and employment opportunities in the port. A long-standing division of labor, in which docked ships are unloaded by one group and transferred to cargo trucks by the other, means that both groups are needed to support essential port operations. Instead of building an interdependency between the groups, a local IHS Markit source reported that this has heightened anxieties around the impacts of modernization – specifically mechanization – of port operations.

Port workers regularly demand higher salaries and the payment of arrears, and strongly oppose any government attempts to privatize or modernize the port through automation, fearing that this would result in layoffs.

Any further disruption to imports is likely to exacerbate the already acute shortages in key goods and commodities, and impact on exports, including for landlocked African neighbors depending on Port Sudan.

Pictured: Cranes and ships in harbour, Port Sudan, Sudan.

Impact on the economy

In a press statement on 11 October, the Sudanese National Chamber of Importers stated that the one-month blockade had cost \$65 million daily to the Sudanese economy, which amounted to \$2 billion (7% of GDP) in total. Additionally, highway blockades resulted in the total halting of about 3,000 trucks, causing losses of up to \$2 million daily. These losses are particularly significant, given Sudan's already faltering economy and very high dependence on imports, with annual trade deficits amounting to over \$8.5 billion in 2020 (12-13% of GDP).

IHS Markit's maritime data show a significant decrease in Sudanese port calls in the second half of 2021, with a more pronounced decline since September, particularly affecting dry cargo, followed by oil tankers and bulk carriers. This is particularly important in Sudan's context, given that widespread shortages in bread and fuel in 2018 were the primary driver behind the nationwide mass protests that ultimately led to then president Bashir's ousting in 2019. In October 2021, the Sudanese authorities temporarily barred oil tankers from entering Sudanese waters and Port Sudan, as arriving vessels were not able to discharge

their load owing to the port's closure by protesters, resulting in additional costs for the government, including demurrage.

The Sudanese energy and oil ministry therefore warned in the same month that a continued blockage would fill the port's oil depots to capacity within 10 days.

Although the government did not provide any specific information on the sectors most impacted by the September blockade, a look at top trade partners for the country might be insightful: livestock and agricultural products mostly get exported to Saudi Arabia and the United Arab Emirates while Port Sudan disruptions are particularly impactful for South Sudan, given that it exports all its crude oil through Sudan, using Sudanese pipelines and ports. South Sudan is also almost entirely dependent on oil export revenue. For its part, oil exports earned Sudan half of its total fiscal revenues before the secession of South Sudan in 2011.

Cargo movement with Egypt is also likely to continue being disrupted by protests blocking off roads. Additionally, in October 2021, Egypt suspended land transport with Sudan after dozens of Egyptian cargo trucks became stranded at the crossing.

The protests will likely cause major disruption to other important highways in the coming months, including blocked access to Bashayer, Suakin, Heidob, and Demadema ports. ■



IN COURT SALVAGE

After a tanker polluted the Port of Rotterdam in 2018, the question of how much compensation is due remains unanswered

CASE

Is she who she claims to be

NOL VAN HAL | Lawyer at Van Traa Advocaten, a Dutch law firm specialized in international trade, transport and logistics, insurance and liability

On 23 June 2018, Odfjell-owned tanker *Bow Jubail* collided with a jetty in the Port of Rotterdam. As a result, the ship lost 217 tons of bunker fuel in the surface water. Over 150 parties, including the Rotterdam Port Authority, port-based companies, and shipowners that were in the port at the time of the spill, suffered losses resulting from the pollution.

Odfjell was held liable for losses reportedly totalling approximately €80 million and subsequently filed a request with the District Court of Rotterdam to limit its liability globally. Global limitation of liability refers to the right conferred upon shipowners to limit their liability for designated claims arising out of the same incident to a certain amount.

If that amount is insufficient to satisfy all claims, the claims are reduced proportionately. The right for shipowners to limit their liability follows from either law or conventions. The *Bow Jubail* owner based its request on the Bunker Convention in combination with the Convention on Limitation of Liability for Maritime Claims 1996 (LLMC). The owner's liability under these conventions would be limited to approximately €17 million.

However, the injured parties opposed this request. They argued applicability of the International Convention on Civil Liability for Oil Pollution Damage 1992 (CLC) as the

Bow Jubail is a ship within the meaning of that convention. If this was the case, this would positively affect the injured parties' recourse position. The *Bow Jubail* liability under the CLC is limited to approximately €22 million, with the excess of the claims covered by the International Oil Pollution Compensation (IOPC) Funds and Supplementary Fund.

Thus, the central question in the Dutch limitation proceedings is whether the bunker spill from the *Bow Jubail* falls under the scope of the CLC.

The Court of Appeal of The Hague (27 October 2021, *ECLI:NL:GHDHA:2020:2055*), following the judgment in first instance of the District Court of Rotterdam, shows that the answer to this question does not depend on the nature of the pollutant, namely bunker fuel, but on the type of ship from which the pollutant originates.

The Court of Appeal held that the *Bow Jubail* at the time of the

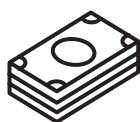
incident qualified as a ship within the meaning of the CLC. The CLC not only applies to oil tankers, but also to so-called combination ships, such as oil bulk ore ships, which by their construction can be used for the carriage of persistent oil in bulk and other cargoes. The application of the CLC to these combination ships is limited to voyages during which they carry persistent oil in bulk

as cargo and during any voyage following such carriage.

Shipowners can escape applicability of the CLC in the latter situation if they can prove that there were no residues on board the ship at the time of the incident. The *Bow Jubail* was a combination ship and carried persistent oil on the voyage prior to the incident. The question is, therefore, whether the vessel still had persistent oil residues on board at the time of the spill in Rotterdam.

The Court of Appeal considers that a residue is "what remains after the discharge of a cargo of persistent oil transported in bulk." Residues in the washing water (the 'slops') also fall under this heading. What is necessary, however, is that there is a sufficiently substantial quantity involved. To escape the application of the CLC, the shipowner will therefore have to prove that at the time of the incident, there were no residues on board at all or, at most, a negligible quantity. The Court of Appeal finds that high standards should be set for the proof to be provided by the shipowner that a ship does not qualify as a CLC ship.

In the *Bow Jubail*, the shipowner fails to meet those standards. Thus, the Court of Appeal rules that the vessel qualifies as a ship within the meaning of the CLC. The shipowner is, therefore, not entitled to invoke the lower limitation of the Bunker Convention and the LLMC 1996. Odfjell has meanwhile brought an appeal to the Dutch Supreme Court. This case is therefore to be continued. ■



€22 million

The *Bow Jubail* liability under the CLC convention

Lessons to take away

The incident with the *Bow Jubail* shows that it is relevant to ascertain the type of ship from which the oil pollution originated. The mere fact that the polluting substance is a ship's bunker fuel is insufficient to conclude that the shipowner may limit its liability based on the lower limits of the Bunker Convention and the LLMC. The Court of Appeal's judgment gives a clear warning to shipowners playing hide-and-seek in case of pollution. It is up to them to prove that their ship is not a CLC ship.

The advice to injured parties in cases like these, such as ports and harbors, is to remain vigilant when ascertaining the type of ship from which the pollution originated. When a ship is incorrectly identified as non-CLC ship, it may lead to injured parties receiving only limited compensation for their claims where full compensation may have been possible. ■

EXPERT

Doing an identity check

FRANS VAN ZOELLEN | Chair, IAPH Legal Committee

Oil pollution is a common problem in ports and harbors, negatively impacting the local environment and businesses. If the pollution can be traced back to a ship, the shipowner is generally strictly liable for damage resulting therefrom. To mitigate shipowners' exposure, international conventions in return grant them the right to limit their liability for the pollution claims lodged against them.

The incident with the seagoing tanker *Bow Jubail* in Rotterdam shows that injured parties should always check whether the ship is of the legal type the shipowner claims it to be, as this may seriously influence the injured parties' recourse position.

To qualify a ship as a CLC-ship or not, could follow from investigations conducted by surveyors and consultants instructed by the various parties involved or – if possible – conducted by an independent court-appointed surveyor. If it ascertained that the vessel indeed carried oil on the prior voyage and there is still residue on board, it could be possible to apply the CLC instead of the Bunker Convention, in combination with the Convention on Limitation of Liability for Maritime Claims 1996. This means the applicability of a higher amount and the excess of the claims covered by the IOPC Fund and Supplementary Fund.

The key takeaway is that ports could improve their legal position if the intricacies of these decisions are well understood. ■

"Injured parties should check whether the ship is of the legal type it is claimed to be"





No port to die

CREATIVE SIDE NO TIME TO DIE

H

aving been delayed several times owing to the COVID-19 pandemic, the latest James Bond movie, *No Time to Die*, finally premiered worldwide in October 2021.

Alongside fans of the series who eagerly awaited the film to be shown in theaters, employees of shipping giant CMA CGM were also keen to set their eyes on the material as part of the filming was done in the CMA CGM-operated Kingston Container Terminal in Jamaica.

Using 1,000 branded shipping containers as well as two vessels, viewers will not be able to miss the scenes in the film.

"CMA CGM granted filmmakers EON Productions unprecedented access to Kingston Container Terminal in Jamaica to shoot an action sequence with a seaplane, and the vessel *CMA CGM Fort Saint Georges* features in the film when Bond is rescued from the ocean," said the French shipping company. How Bond got himself into that situation, readers will have to find out by watching the film.

For the cooperation, a dedicated team led by Tanya Saadé Zeenny, executive officer of the CMA CGM Group, was formed at the head office in Marseille, France, and CMA CGM-operated terminals in Kingston and Dunkirk in Jamaica and France.

This was necessary as the filming came with a number of logistical challenges and cooperation needed between the film and shipping companies, as well as the port authority and the marine police.

First, Gregg Wilson, associate producer, said that, "none of these locations are places that have had any filming done in them before." Consequently, CMA CGM amended vessel calls to accommodate the shoot – albeit the terminal being the busiest in the Caribbean.

For the seaplane scene, the crane equipment of the port made for an impressive backdrop, with CMA CGM allowing the plane to fly underneath, said Martin Joy, location production manager. It might remain the only time that a plane is allowed in the port.

For those who have missed the film in theaters, *No Time to Die* was released for home cinema on 20 December 2021. ■

Pictured: Filming of the latest James Bond film *No Time to Die* at Kingston port, Jamaica.

Photo: Ed Miller



Playing the Port Endeavor game for sustainable ports

Port managers from Latin America and Antwerp tested a new learning experience developed by the IAPH. Participants exchanged knowledge and experiences by playing the Port Endeavor role game, which aims to increase awareness of UN Sustainable Development Goals and to accelerate their adoption in port communities

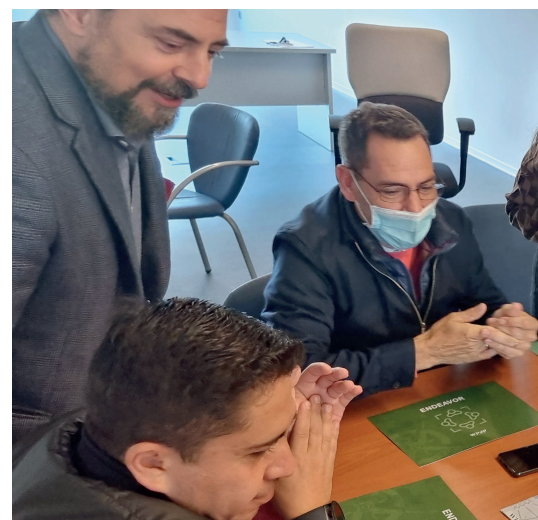
The Port Endeavor game draws on real life examples from the 200+ strong IAPH World Ports Sustainability Program (WPSP) database of projects and best practices on how ports integrate the UN Sustainable Development Goals (UN SDGs) into their business models and operations. The aim of the game is to increase awareness among port management, staff, and professionals working in port communities on how ports apply the UN SDGs to their business, to ultimately accelerate adoption of these measures in the port sector.

The game invites players to represent a fictional port with a specific role and objective. The idea is to go through various sustainable activities and challenges as a port team. Activities are selected and paid for by the teams, operating with limited budgets.

During the game, port teams can be impacted by occasional disruptive events. As a result of successful activities, teams will collect combinations of SDGs on a points basis. "The focus of the game is not on monetary gain and being the richest port in the end. Players have to decide to spend their limited budgets on sustainable activities," said Victor Shieh, IAPH communications director.

Learning by playing

The launch of the Port Endeavor game was delayed owing to the COVID-19 pandemic. An online version of the game has been developed over the past year, and now both participants of Antwerp Flanders Port Training Center's (APEC's) International Management Training at the Port of Antwerp's Port House and those of the UNCTAD TrainforTrade Port Management



Course hosted by the Port of Gijón, Spain, were among the first players to test the game in face-to-face session.

Esteban Pisani from the Exolgan Container Terminal in Argentina was surprised how the sustainable game taught by playing. The game showed him how to analyze the safest way forward.

"Considering the economic resources we have, it made us understand how our decisions impact on each of the SDGs. As in our daily work, all decisions have consequences, good or bad. Problems arising in the game must be solved and they have a cost, there's nothing better to explain what happens in our jobs," Pisani said.

Jacqueline Paredes Corrales from Terminal International del Sur in Peru thinks that the game succeeds in raising awareness about how ports should operate in a sustainable manner.



When playing the game, she noticed that it addressed many important points that port professionals experience every day in their communities. "When facing disruptive events in the organizations we must apply teamwork and decision making that fits to the strategy and organizational objectives. Ports must develop a sustainability plan, where decisions are based on the UN SDGs," she said.

The Port Endeavor game session was included in a two-week train-the-trainer workshop where 20 senior port managers from Latin America exchanged knowledge and experiences.

Ambassadors of the SDGs

UNCTAD's TrainForTrade program will continue to develop and use the Port Endeavor game in partnership with the IAPH. "One of the greatest benefits of the game resides

in the intense and meaningful exchanges it fosters between ports managers from different horizons and backgrounds. Each of them will defend vividly their choices and solutions to make their port resilient and compliant with UN SDGs. You cannot have better ambassadors after playing the game," said Mark Assaf, chief of UNCTAD's human resources development section, which manages the TrainForTrade programme.

Training local trainers is an important element of the TrainForTrade's program.

The idea for the game was developed after a workshop conducted by UNCTAD and IAPH in 2019 in Geneva. Participants from around 30 ports were joined by representatives from academia, financial institutions, and shipowners to conduct exercises around the SDGs based on concrete port project examples.

Above: APEC's International Management Training at the Port of Antwerp's Port House playing the Port Endeavour game.

Below: TrainForTrade's workshop in Gijón, Spain, playing the Port Endeavour game.

Photo: Victor Shieh

Being on location in Gijón, Shieh was happy to see how the idea of a game was brought full circle from the joint IAPH-UNCTAD workshop in Geneva.

"Seeing port executives from Latin America being so enthusiastically engaged in playing the Port Endeavor game and giving us such positive feedback was very rewarding," he said.

"As a result, we were able to establish which SDGs were most relevant to ports, and that there was a need to support other ports in applying sustainability in their work," added Shieh. ■

Membership notes

We are pleased to welcome as new regular and associate members of the association:

Regular member

Companhia de
Desenvolvimento do
Complexo Industrial e
Portuário do Pecém (CIPP)

📍 Brazil

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✉ raniere.fontenele@

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👤 Danilo Gurgel Serpa, CEO

Associate members

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✉ tcatlin@porttechnology.org

🌐 www.porttechnology.org

👤 Tracy Catlin, HR manager

Goridah Alyami

📍 Saudi Arabia

✉ goridah.yami@IMI-KSA.COM

Gadi Benmoshe

📍 Israel

✉ gadib@marinnovators.com

José Firmo elected vice president for the Central and South America region

We are pleased to announce that José Firmo, CEO of the Port of Açu, Brazil, was elected as vice president for the Central and South American region by the vote of confidence to fill the position.

Following Article 21 of the IAPH Constitu-

tion, he took office on 10 November 2021 and will hold the position until the annual general meeting during the IAPH World Ports Conference in 2023. We look forward to his contributions to the activities of the IAPH. ■

Outcome of the Japan-TIPC seminar

On 30 November 2021, Japanese IAPH member ports Tokyo, Kawasaki, Yokohama, Nagoya, Osaka, Kobe, and Hakata; and Taiwan International Port Corporation (TIPC) jointly organized an online seminar with the support of the IAPH. Japanese officers of the port authorities and corporations and TIPC officers, including Cheng, Shu-Hui, the assistant vice president, joined the seminar interpreted between Japanese and Mandarin. Participants from both sides gave presentations on the following topics: port management system in Japan, TIPC background and cooperation with locals, the application of automation and artificial intelligence, and how this application can mitigate container terminal congestion in Japan, new visions for smart ports, decarbonization in ports and port industry, sustainable port development, as well as Taiwan's port infrastructure for offshore wind energy development.

After each presentation, both sides asked questions and exchanged opinions regarding the topics at interactive sessions. ■

C-MAT master classes announced

As of January 2022, IAPH associate member C-MAT, the Centre for Maritime and Air Transport Management of the University of Antwerp, and Antwerp Management School is hosting its maritime master classes for both students and professionals.

All classes are offered in two-week blocks, with a mixture of academic and business contributions. The series starts with the master class on Port Economics and

Business from 11 to 22 January. This is followed by the master class on Maritime Economics and Business from 11 to 22 February and the master class on Maritime Supply Chains from 14 to 25 March. All master classes can also be followed as online modules under hybrid teaching, at a reduced tariff. ■

See below events timeline for details.

EVENTS TIMELINE 2022

18

JANUARY

IAPH Data Collaboration Committee
meeting

Remote meeting

🌐 iaphworldports.org

01

FEBRUARY

IAPH Climate and Energy Committee
meeting

Virtual meeting

🌐 iaphworldports.org

10

FEBRUARY (10-22)

Maritime Economics and Business
IAPH members receive a discount on this

C-MAT course

🌐 bit.ly/CMATcourses



The vice president for North America, Robin Silvester, talks to *P&H* about local challenges and hosting the World Ports Conference

Q: The next World Ports Conference will take place in Vancouver. What part of the journey toward IAPH22 excites you most?

A: Probably most exciting is the fact that we get to hold this conference in person for the first time since 2019! The 2021 virtual conference was a great success, and I commend the organizers for the work they did to pull together such an innovative experience for our members. That said, I think we are all looking forward to the conversations and connections that come from meeting colleagues and peers face-to-face. I am certainly looking forward to welcoming everyone to Vancouver, British Columbia, and to Canada's largest port. From where the conference will be held, attendees will be able to look out across Burrard Inlet and see some of the terminals that make up the Port of Vancouver at work, including the cruise terminal at Canada Place, where we will be welcoming back cruise lines for a revitalized season in 2022.

Q: Can you share which focus areas the conference will have? Also following up from the 2021 conference.

A: Building on the 2021 discussions about the transforming port landscape, the theme of the 2022 conference is #CloseTheGaps. Leading port stakeholders will discuss and share strategies to raise the performance of the world's major port regions. As we move out of the shadow of the COVID-19 pandemic, there is a lot that our industry has learned from the unpredictability of these past 20 months. It has become clear that there are things that we can all be doing – or perhaps be doing better – to safeguard our ports against uncertainty.

One of those things is real-time data sharing to create a more efficient supply chain. What the media has dubbed the global supply chain crisis has shone a spotlight on the importance of supply chains and also the complexity of port systems – how disruptions to one area of the supply chain can have a ripple effect on the movement of cargo worldwide. Another topic that I anticipate will be significant is climate action and resiliency.

As part of our vision to make the Port of Vancouver the world's most sustainable port, we are working with the ports of Seattle and Tacoma and the Northwest Seaports Alliance to advance the Northwest Ports Clean Air Strategy, which aims to phase out seaport-related emissions by 2050 to support cleaner air for local communities and fulfill our shared responsibility to help limit global temperature rise. In addition, in October 2021, nine major shippers including Amazon, Ikea, Unilever, Michelin, and Patagonia pledged to use only zero-emission vessels to move their goods by 2040, increasing pressure on ports.

Q: You are also IAPH VP for the North American region. Which challenges do ports face in this region?

A: Concerns about supply chain resiliency have been front and center since the beginning of the COVID-19 pandemic. Many are facing a surge in consumer demand for goods leading to congestion and disruptions to the fluidity of goods movement. Ahead of the 2021 holiday season, retailers urged customers to start shopping well in advance for fear of shipping delays; many are still experiencing long wait times in replenishing their stock.

Adding to this pressure, ports in North America are also grappling with the fallout of extreme weather conditions due to climate change. For example, in British Columbia we experienced a summer of severe wildfires followed by an autumn marked by extreme flooding in 2021, both of which impacted transportation routes and caused delays in the supply chain.

Q: How would you like to work with the technical committees of the IAPH to help solve those challenges?

A: I believe that the technical committees of the IAPH provide an excellent platform for idea-sharing and collaboration on these issues. Ports are hard at work on solutions to problems on climate change and supply-chain efficiency. Working with the technical committees would give all of us an opportunity to tap into shared knowledge and expertise, allowing us to address problems faster and with better results.

Q: What other kind of collaboration would you like to see between your region's member ports and the IAPH?

A: There is so much great work happening at member ports. Through IAPH, we can amplify that to a broader audience and get on the same page on initiatives that benefit from collaboration. Furthermore, IAPH gives us a direct voice at the IMO, allowing us to participate in the work and conversations that inform global regulation and sustainability efforts. ■

IAPH INFO

Photo: Port of Vancouver

ROBIN SILVESTER
CEO, Port of Vancouver, Canada

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MARCH (1-3)

ASEAN Ports and Shipping
Container and Logistics Conference in Kuala Lumpur
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14

MARCH (14-25)

Maritime Supply Chains
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16

MAY (16-18)

World Ports Conference Vancouver
The IAPH's flagship conference will take place in Canada
worldportsconference.com



BOOK AUTHOR

DR MATTHEW HEASLIP has been working at the University of Portsmouth, UK, as a lecturer in Naval History since 2018. His research focuses on the 20th century Royal Navy and its role within Britain's imperial system.

THE REVIEW

Gunboats, Empire, and the China Station – The Royal Navy in 1920s East Asia

PATRICK VERHOEVEN



Examining Britain's imperial outposts in the 1920s East Asia, *Gunboats, Empire, and the China Station – The Royal Navy in 1920s East Asia* explores the changes and challenges affecting the Royal Navy's third-largest fleet, the China Station, as its crews fought to hold back the changing tides of fortune. Bridging the gap between high level naval strategy and everyday imperial culture,

Matthew Heaslip, a lecturer in Naval History at the University of Portsmouth, UK, highlights the importance of the China Station to the British imperial system, foreign policy, and East Asian geopolitics, while also revealing the lived experiences of these imperial outposts.

Following the British immersion into a new world and the challenges they encountered along the way, the book considers how its naval officers were perceived by the Chinese populations of the ports they visited, how the two communities interact-

ed, and what this meant at a time of relative world peace. Against the changing nature of Britain's informal empire in the 1920s, *Gunboats, Empire, and the China Station* highlights the complex nature of naval operations in between major conflicts and shows that the interwar period was far from peaceful in East Asia.

One of the principal conclusions of Heaslip's thoroughly researched book is that the Royal Navy was not a uniform or a blunt tool of the empire. The China Station played a complicated role in the British Empire's evolving relationship with China.

In return, China itself had a significant impact upon Britain's grand strategy for East Asia. The slow evolution of the China Station during the 1920s was central to how long the British Empire's informal interests in East Asia could be maintained and to the viability of the Empire's strategic defence. Those priorities were not always aligned, but they were interlinked.

Moving into the 1930s, the Royal Navy had gone from clashing with the Chinese rulers to training their navy, in the hope they might join forces against mutual threats. Quoting a British officer at the time, "Realise that in due course China will be a superpower in the world. It is no small thing to lay the foundations of its future navy ... You may well be starting something that will have a world importance later on."

No doubt the most important message of historical works like *Gunboats, Empire and the China Station* is that history tends to repeat itself and that those who choose to ignore it, do so at their own peril. ■

Download or buy *Gunboats, Empire and the China Station – The Royal Navy in 1920s East Asia* here:

🌐 bit.ly/GunboatsEmpireChinaStation



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