

# ports & harbors

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



## Supply chain resiliency

Mary Carmen Barrios  
of Wallenius Wilhelmsen  
on the challenges of  
decarbonisation and the  
growth of the electric  
vehicles market

Official membership magazine of  
**iaph**   
international association  
of ports and harbors

**Unveiling VadHAVan**  
India's future mega port

**Boudewijn Siemons**  
Port of Rotterdam CEO

**Cruise Gate Hamburg**  
New HafenCity terminal

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

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## EDITOR'S COMMENT



**MARTIN CLARK**  
Editor

# Hello Hamburg

**T**his edition of P&H was produced in the run up to the IAPH World Ports Conference, scheduled to take place in Hamburg, Germany, from 8 to 10 October, 2024. If you have not registered for the conference yet, now is the time.

The conference will be held at the Hamburg Congress Centre, a state-of-the-art convention facility located at the heart of one of Germany's most famous and historic port cities.

An unrivalled opportunity for collaboration, knowledge sharing and networking, this

## CONTRIBUTORS



**GERALDINE KNATZ**  
Professor

Geraldine Knatz is Professor of the Practice of Policy and Engineering at the University of Southern California. She served as the first female director of the Port of Los Angeles from 2006 to January 2014. She is past president of the American Association of Port Authorities and past president of the International Association of Ports and Harbours. ■

flagship event brings together hundreds of port professionals and other industry stakeholders from across the world.

The main themes of this year's conference — managing risk, building resilience and unlocking opportunities — can be traced throughout this issue of the magazine.

The notion of building resilience through community is echoed repeatedly as port stakeholders lean into each other for support and stability during a time of great uncertainty. Threats are coming thick and fast with geopolitical instability on the rise, changes in trade patterns and physical and digital security challenged, both at sea and on shore.

In this issue, we examine the concept of widening such communities, working alongside all stakeholders from across the supply chain and the maritime world to embed greater resilience throughout the ports ecosystem.

On top of this, ports face the daunting challenges posed by the energy transition and the move towards low- and zero-carbon fuels, balanced against national energy security concerns and the need to maintain stability in the supply chain.

The 2024 conference will also host the IAPH Sustainability Awards powered by the World Ports Sustainability Programme. This will celebrate some of the incredible projects now being implemented by ports on the road to decarbonisation and highlights how sharing best practice can benefit all.

Similarly, the rapid digitalisation of the industry is transforming how ports, shipping and logistics work together, presenting additional challenges but also throwing up potential opportunities for new collaboration, transparency and efficiency.

Inside, we speak to industry professionals such as Boudewijn

Siemons, chief executive at the Port of Rotterdam Authority, and Mary Carmen Barrios of Wallenius Wilhelmsen, a global leader in shipping and vehicle logistics.

A common thread throughout is the need for greater cooperation and dialogue exchange in order to face the challenges of today head on.

Where ports are able to demonstrate best practice and navigate through these pressures, industry is ready to recognise and reward the effort.

An example in this issue includes measures to counter drug and other trafficking and how this can become an asset in terms of a port's appeal and marketability among shippers and logistics providers if they are seen to be succeeding in this area.

Given the complexity of all these challenges and the sheer number of moving parts, collaboration and the sharing of best practice is a good starting point.

This multi-disciplinary approach is likely to accelerate as all industry players become industry partners in the smooth-functioning of the global supply chain. Port authorities, shipping companies, supply chain providers and cargo owners must all adapt rapidly to these fast-changing times.

IAPH offers a forum to come together and to shine a light on these complexities with its core themes of climate and energy, data collaboration and risk and resilience. And the best venue to begin to understand all that is happening in the industry today and to learn from colleagues how best to navigate through the maze is the IAPH World Ports Conference.

On behalf of the IAPH team, we all look forward to seeing you there. ■



**MARK WOOTTON**  
Royal HaskoningDHV

Mark Wootton is a leading professional on smart ports and associate director for port planning and smart ports at Royal HaskoningDHV. He and his team have recently published a study on the digitalisation of ports all across the African continent. Enabling the digitalisation of African ports will be essential for the African maritime sector to grow and prosper, both in the near term and far future. ■



**FELICITY LANDON**  
Freelance journalist

Award-winning journalist Felicity Landon is a well-known figure in maritime circles, with the depth of knowledge and network of contacts to prove it. Felicity is versatile in her areas of coverage, with these spanning the container, dry and liquid bulk, cargo handling, energy and diverse other subject areas. ■

# A time to collaborate

Mary Carmen Barrios is senior vice president, operations, at Wallenius Wilhelmsen, a leader in integrated vehicle transportation and logistics. Her role overseeing ports, terminals, stevedoring and technical services across the Europe, Middle East and Africa (EMEA) region puts her front and centre in navigating current volatility in the global supply chain. Here, she talks to IAPH managing director Patrick Verhoeven about the challenges of decarbonisation, the growth of the electric vehicles (EV) market and how all sides must work more closely to improve resiliency in an age of uncertainty

MARTIN CLARK

**Q** Mary Carmen (MC), can you give a brief introduction to Wallenius Wilhelmsen?

**MC:** As a leader in integrated vehicle transportation and logistics, we facilitate the freight journey from factory to end customer, working across four key segments: shipping, logistics, government services and digital supply chain services. Within the group, we have four shipping lines and operate 125 vessels, servicing 15 trade routes across six continents, plus a global inland distribution network. We also operate processing centres across the globe and seven marine terminals, with two in Europe, at Zeebrugge in Belgium and Southampton in the UK. We have been in business for over 160 years and today have around 10,000 employees in 28 countries.

**Q: What would you say are your main priorities right now?**

**MC:** Safety and the wellbeing of our people, that's a non-negotiable and always top of my agenda, whilst delivering high-quality services to our customers with continuous operations across EMEA servicing their most strategic needs. I'm also responsible for facilitating 'green corridors' or what we call 'net zero end-to-end corridors' and the decarbonisation of our land-based facilities. We have been very proactive in this work with a target to achieve this by 2030.

**Q: What trends and challenges are you seeing in the supply chain?**

**MC:** I would say we are in a transitional period, right now, as we are decarbonising our customer supply chain, the Original Equipment Manufacturers (OEMs), all in the face of so many challenges such as geopolitical unrest, congestion, severe weather, as well as the volatility and unpredictability of consumer demand. Because of this, OEMs are going to be partnering more with logistics integrators, especially those that can support them on their own journey towards net zero, review best practices and innovation, as well as trying to reduce time to market and cost. So, it's a very complex time for the industry but we are trying, as a market leader, to be deeply integrated in all the manufacturer's supply chains creating value constellations with digital in and carbon out.

**Q: Patrick (P) are you also seeing this move toward greater collaboration?**

**P:** This supply chain uncertainty is something we saw in pre-pandemic times, but it's accelerated since then. If you add in conflicts in Ukraine, the Middle East and other tensions, there seems to be permanent instability. The question is how do you deal with that as an industry? I think part of the answer is to get all parties closer and working together. We are now





getting cargo owners come to us wanting to know more about ports. Now, we have the likes of IKEA, Cargill, say they'd like to work with us on data sharing, to get more predictability and transparency in the supply chain; they want to know more about what's happening, if there is a delay or an incident, to get that information faster. This then brings us to discussions on things like standardisation. And we're not the only ones. I hear from shipping industry colleagues they are seeing parties come together as well. I think this instability has always been there, but perhaps not at the rate we've seen it over the last four years. That includes the digital transformation as well, of course; it's totally changing the traditional patterns of how we are delivering our services to customers.

**Q: In what ways can different parties work together to boost resiliency?**

**MC:** Customers are looking for more certainty, so there is a collective effort to reduce disruption across the different dimensions of the supply chain; rather than 'just in time', it's more about 'just in case'. And yes, there are also these two other broad transformations taking place: net zero and digitalisation. We want to work with customers willing to join our net zero journey because, for us, there's a responsibility to ensure we can provide greener services and also certify the reduction in carbon intensity. We're trying to do the same as well with service providers. In our shipping segment, we've ordered 12 new methanol dual fuel Shaper Class pure car and truck carrier (PCTC) vessels that will be delivered starting late

“ Customers are looking for more certainty, so there is a collective effort to reduce disruption across...the supply chain

**MARY CARMEN BARRIOS**, Wallenius Wilhelmsen

2026. And we cannot do the end-to-end net-zero corridors by ourselves, we need to partner with port authorities and others to create the whole ecosystem, including infrastructure, new biofuels availability, technology, processes and regulations. This requires a different way of doing business, and we are shaping the way forward. We expect to have several green corridors with port authorities by 2027. This means not only being ready to provide such services, but also to be able to track and deliver proof we are genuinely reducing carbon intensity in our supply chains.

**P:** I would agree that the European Union facilitates leadership in this regard, as it not only provides a regulatory framework, but also financial support. Take the example of onshore power supply (OPS), where public funding is necessary because the business case is not straightforward. In Hamburg, at the World

**Pictured:** Patrick Verhoeven and Mary Carmen Barrios, pictured recently in Antwerp, discuss the challenges facing the supply chain  
Photos: Dries Luyten



Ports Conference, we will see case studies and visit the OPS facilities for cruise and container lines. They're among the first in Europe to be ready, but there was also financial backing, and I think that's an important message to relay to other regions if we want this to become a global practice. While you also need technical standards, of course, you do need that financial help for these investments to be viable. Also, I think initially when this concept of green corridors came up, people thought of the longer deep-sea routes, and there are some promising partnerships developing there too, but it may be that if we focus on shorter distances, we might see results sooner. I'm not saying we shouldn't do long-distance corridors, of course, but obviously there you have many more actors involved.

**Q: How has the emergence of EVs shaped your business in recent years?**

**MC:** The electric vehicle (EV) market has experienced significant developments with notable shifts among brands and models outlined by an upward trend whilst road transport electrification is reshuffling cards in global markets. Throughout the years, we have learned how to safely handle and transport electric vehicles, as this segment requires a different set of considerations compared to internal combustion cars. We have developed real expertise in this area. We had to explore additional measures, both onboard for the safety of our crews and also in our terminals to upscale people so they know the proper handling and what to do in the event of an electrical fire. And then there's the state of charge, or SOC. We try not to load cars that are overcharged, we normally go for around 35% charge and then we complete the charging in the terminal. every OEM is unique using a totally different combination of elements in their own battery. And now of course we see hybrids becoming popular so it's a continuous learning process. In our own operations, we have an aggressive plan to electrify our fleet for cargo operations. Our shuttle buses, vans, vehicles and forklifts will be electrified and ready by 2027.

**Q: How do you see business levels in the coming year?**

**MC:** Overall, our outlook remains positive, and we believe 2024 will be better than 2023, as we continue to assess and reassess

“ More port authorities are now seeing their role as a facilitator in the supply chain

**PATRICK VERHOEVEN,**  
Managing Director of IAPH

the areas where we deliver services, how we deliver them and what we can offer our customers. Adaptability and the ongoing evolution in our offer to customers are keys to our success. The flexibility we offer to customers is one of our strengths. We co-create value for, and with them, through synergies and partnerships. We are in different levels of their supply chain having that flexibility and competence across our network to be able to consistently provide

them additional services whenever they require. We are always seeking a deeper understanding from OEMs; some are changing their strategies and we are adding value in the dynamic.

**P:** Again, more port authorities are now seeing their role as a facilitator in the supply chain, or at least the port-related supply chain, bringing parties together around things like port call optimisation. Traditionally, port authorities were landlords, leasing land to private operators. But, increasingly, many are taking a further step in developing partnerships. Certainly, the energy transition has prompted a greater discussion on how to transform a port complex, which is so diverse, with so many actors involved, and move in a similar direction towards decarbonisation and digitalisation. As IAPH we initiated a Supply Chain Task Force, where we reach out to industry colleagues from the shipping, cargo handling, port community systems and freight forwarding sectors, focusing on the one hand on the needs of cargo owners and on the other on port call optimisation. In both cases, it means getting the data or information needed and looking at what new standards are needed for reliable data exchange. We will present the interim results from that work in Hamburg at the conference in October. It's great we are able to have these conversations. I'm keen for IAPH to be more than just a network of port authorities and to get operators, shipping lines and others into that dialogue to learn from each other and share experiences.

**MC:** With 2025 approaching quickly, our industry will remain at the core of several transformation processes, as a result of changing customer expectations, technological developments, and the shifting patterns of global trade. We see a bright and innovative opportunity to shape the future of integrated logistics, giving rise to an enhanced customer experience while delivering sustainable services. ■



## PERSPECTIVE SUPPLY CHAIN RESILIENCE

# Insights from the Panama Canal

In an increasingly interconnected world, global maritime supply chains are essential to international trade. The resilience of these supply chains has been tested time and again by various challenges, from natural disasters and Covid-19, to more recently, geopolitical tensions in Eastern Europe and the Middle East, and the recent drought that limited the Panama Canal's operations.

Despite these challenges, the supply chain has demonstrated remarkable adaptability and resilience by ensuring the continued flow of goods even in the face of adversity. At the Panama Canal, we have learned that the key to resilience in this industry comprises adaptability, sustainability and efficiency.

But the increased complexity of maritime supply chains still makes them vulnerable to disruptions. As supply chains continue to be tested, the Panama Canal has proven to be a vital

and reliable artery for international trade. Our passageway continues to connect markets and helps to facilitate the movement of goods across the globe. This year, the Panama Canal marked its 110th anniversary in operation, which is why we believe now is an important moment to reflect on the challenges and strategies that ensure the ongoing resilience of this critical infrastructure.

### Adapting to global crises

The 110th year of operations at the Panama Canal happened to coincide with a significantly prolonged drought. In fact, due to the El Niño Phenomenon, the dry season this past year presented the most severe conditions experienced at the canal since its expansion in 2016,

which underscored the vulnerability of the canal's freshwater sources. The drought affected water reserves at both the Gatún and Alhajuela reservoirs of which adequate levels are critical for both uninterrupted canal operations and drinking water supplied to more than half of Panama's population.

In response to these challenges, the Panama Canal Authority (ACP) quickly responded by implementing a hydro-operational strategy that focused on optimising water use, which included limiting draft water levels and daily transits to ensure the sustainability of operations by saving as much water as possible, as well as cross-filling locks and using a reservation system for all vessels.

But even now that the ongoing rainy season is gradually restoring water levels at the reservoirs, we at the Panama Canal Authority remain vigilant in our efforts to adapt to the changing climate.

**Pictured:** The Panama Canal remains a vital link in the maritime global supply chain

Photo: Solarisys13 | Dreamstime.com



## ABOUT THE AUTHOR

**ILYA ESPINO DE MAROTTA** is deputy administrator and chief sustainability officer of the Panama Canal Authority. A marine engineer from Texas A&M (1985) with a Master's in Economic Engineering, she has worked for 30 years at the Panama Canal.

### Sustainability

Beyond responding and adapting to daily demands, ACP Administrator, Dr. Ricaurte Vásquez Morales has been leading initiatives to ensure the canal's longevity and relevancy in the face of climate change as an essential transit route, and a sustainability benchmark in the maritime industry. In particular, water management is at the core of our long-term resiliency strategy, which is why the ACP is currently dedicated to constructing the multipurpose reservoir in the Indio River basin, which has been identified as the most viable option to meet the future water demands.

While this project will require significant investment, constructing a new multipurpose reservoir guarantees an ample water supply for the next 50 years. Additionally, the ACP is focusing on integrating the needs of local communities by encouraging sustainable practices and fostering a sense of stewardship among those who live within the watershed. This holistic approach helps to support the broader goal of sustainable development in Panama.

In addition to this investment, the ACP is committed to achieving carbon neutrality by 2050 by focusing on the reduction of greenhouse gas emissions,

particularly by promoting the use of electric cars and with our fleet of tugboats, which currently represent the largest sources of carbon footprint at the canal. Other initiatives like the construction of a photovoltaic plant and the incorporation of hybrid tugboats are also being implemented to help us meet this ambitious goal.

We also hope that by offering the 'green slot' for efficient vessels and participating in international initiatives, such as Just in Time with the International Maritime Organisation, which seeks to reduce emissions by up to 14.5% through better reservation system management, we will encourage greater sustainable practices throughout the maritime industry.

### Ensuring operational efficiency

Earlier this year, in our quest for efficient and reliable service, we introduced the 'Long-Term Slot Allocation' (LoTSA), which gives customers the ability to book transits in advance. This new approach enables participants to secure specific long-term slots which helps to increase the reliability of our service. This initiative is one of the ongoing efforts at the canal to meet market needs while optimising the experience for our customers.

Moreover, during the past water crisis, we implemented a special auction to mitigate congestion caused by the drought. This initiative allowed non-booked vessels that had already arrived at canal waters to participate in a special auction to secure a faster transit space.

Furthermore, we consider open communications with our customers to be a pillar of our resilience principle. Our approach is to always maintain smooth communications, especially during challenging circumstances. Through regular updates, transparent dialogue and close collaboration with shipping lines and stakeholders, we strive to manage expectations and provide real-time information that enables our customers to make informed decisions in real-time.

In times of crises, this ongoing dialogue has allowed us to deliver an efficient and reliable service to our customers, enhancing their trust in our ability to navigate complex times.

As the world continues to face new challenges, our industry must continue to innovate and adapt. By leveraging flexible, sustainable and efficient practices we will all better navigate the complexities of the modern era. ■



## FEATURE PORT COMMUNITIES

# Building resilience through community

No port can cope with or respond to disruption or emergency in isolation. Being prepared means getting the wider community on board with resilience planning

FELICITY LANDON

**H**ow do we define resilience in terms of a port and port operations? What does a resilient port look like in terms of management, risk assessment, business recovery and so much more?

According to Antonis Michail, IAPH technical director, resilience should be seen as an additional, vital layer of management of a port. “Risks are multiple within a port. Just as we have environmental management systems, I would suggest we need risk and resilience management systems – and that is what we are trying to establish with our Risk and Resilience Guidelines,” he says. “What is the operational framework you need to have in place? Do your homework and identify your potential risks, what you need to do before, during and after. The system should provide for corrective measures to ensure you have a better reaction, so that you adapt and learn, and lessons learned are integrated.”

A risk and resilience strategy covers just about anything you can think of – pandemic, oil spill, extreme weather, cyberattack, illicit trade, organised crime, the Baltimore bridge collapse, the blockage of the Suez Canal – but, importantly, it must also apply to the events you haven’t even imagined. “You can’t be ready for every scenario, and you can’t ensure that nothing will ever happen to your port,” says Michail. “But you can continuously improve your preparation and reaction, including by anticipating behaviour.”

To come down to basics, having a clear list of contacts may sound obvious. If a catastrophe is unfolding, does everyone working within or near the port know whom to contact, and how? Emergency drills help clarify the gaps and also establish connections that could prove vital in the event of an emergency, Michail says. Does every company or person working in the port know how to report in if they see something weird or suspicious going on? The system should be easy to handle and straightforward, and social cohesion is a key element here, he notes.

“Internal stakeholders are the parties and businesses in the industry and area – you must have them on board in any kind of risk and resilience plans, exercises and drills, and have procedures in place as to how you communicate information seamlessly. It will not

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**Pictured:** The Port of Seattle is actively engaging stakeholders through an innovative waterfront resilience partnership Photo: Port of Seattle



always be the port authority coping with an incident – maybe other parties will have a role. The important thing is that you need to be able to bring the team of stakeholders together instantly, with clarity about their responsibilities.”

### Community approach

Failing to engage with the wider community on resilience planning could leave a port unable to cope with an incident, adds Michail. “There are always responsible parties you need to coordinate with, or that need to take the lead. Something as simple as an exercise can demonstrate that you know whom to contact, who will be coordinating, how you are going to work together. You can’t have a risk and resilience strategy at a port without including your institutional stakeholders.”

Any risk and resilience strategy also ties into a port’s ‘licence to operate’, he says. “Relationships with the local community are important in a port’s overall resilience. Port authorities must balance the business and public interest. There is a risk of losing that ‘licence to operate’ if people don’t understand the added value the port brings to the community.”

In this sense, he says, we are not only talking about a disaster, but also about other ‘risks’ – such as the impact of a large number of cruise ship calls on the community. The significant ‘risk’ emerging, which will clearly need to be planned for and well explained, is the storage, bunkering and use of new ship fuels such as ammonia. “It is important to work with societal stakeholders and keep them informed at every step. With fuels, you need to consider where are you going to do these operations, what are the risks for the surrounding population? Social stakeholders must be kept accurately informed about what is going on. Otherwise, you can create a perception, for example with LNG, that something is dangerous and they don’t want that in their backyard. These aspects need to be taken very seriously – we need to work together and disseminate information. Not doing so is a risk in itself.”

### Waterfront partnership

The Port of Seattle AdaptSea Waterfront Resilience Partnership has brought together key public agencies that own, regulate or manage waterfront infrastructure and have a stake in resilience along Seattle’s waterfront. Initiated by the port, it has been set up to focus on knowledge sharing and collaboration relating to rising sea levels and intensification of storms.

“The port is keenly aware of the need for collective, collaborative planning for sea level rise and climate-related risks on the Seattle waterfront,” says Stephanie Jones Stebbins, managing director of the port’s maritime division. “Our infrastructure and operations are interwoven and interdependent with the City of Seattle’s street network, utilities, stormwater drainage, public safety and regulatory priorities and the public realm. We initiated the partnership as a forum for co-creating sea level rise and climate resilience strategies specific to the Seattle waterfront.”

The collaboration is with city and county authorities, Washington State Ferries and the Northwest Seaport Alliance.

Jones Stebbins defines resilience as “the port’s ability to withstand, pivot, recover and be back in operation in the face of large-scale and transformative disruption, shock and stressors”.

“We think about that in terms of planning and in terms of response,” she explains. “For example, we plan for seismic events but also we prepare ourselves to respond. We have continuity of business plans and designated teams in place. We do training in incident management and personal accountability. If there is an event, everybody must fill out a quick form online, so we know each person is safe and has somewhere to work. It is so broad. As we drill down into resilience, we have our specific efforts around preparation and response, but it goes deep into the work

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**Pictured:** Ports must work closely with the communities they serve to build effective resilience strategies Photo: Saiko3p | Dreamstime



our engineering team does and also the work our public relations team does. From structural integrity to communications plans – it is all woven together.”

As she says, there are more stressors today. “Being able to respond to sea level rise wasn’t something we were worried about 20 years ago. There are more climate/extreme weather events. Wildfires can impact us – even if not directly in the harbour, the smoke affects air quality and wildfires might affect how our energy is delivered. Seismic [activity] is a big risk here on the west coast.”

### Co-creating resilience

In an increasingly interconnected world, cyber is another big risk and resiliency issue. For example, the 2024 CrowdStrike outage had an indirect impact on Seattle’s cruise terminal – many passengers arrived late because their flights were delayed, and the terminal had to adapt its operations accordingly.

Co-creating resilience extends to a variety of communities, from regulatory and law enforcement through to people living nearby, says Jones Stebbins. In 2017, Seattle was one of three ports chosen by the US Environmental Protection Agency to pilot a port community collaboration toolkit; this led to work with several near port environmental justice communities and the development of a community benefits agreement.

A community advisory group of treaty tribes, NGOs, business improvement associations, educational institutions and others provides technical advice and promotes transparency within potentially affected communities, says Jones Stebbins. A port interdisciplinary team works to implement the community benefits agreement; these community conversations led on to the AdaptSea partnership.

“ Co-creating resilience extends to a variety of communities, from regulatory and law enforcement through to people living nearby

**STEPHANIE JONES STEBBINS,**  
Port of Seattle

“We have a saying: we want to have the relationships before the emergency arises,” she says. “Yes, we had the relationships with law enforcement, Coast Guard, and so on, but we have extended this to the community. In an emergency situation, who do you call, and for what? Obviously that can be a piece of paper with names on it, but it’s having those relationships already that is the really critical part of it. People don’t always know what the port can or can’t do, what’s our property and what’s not. Often a port is quite a mystery – but we can help build knowledge.”

The challenge with resilience is there is always going to be something you haven’t thought of, she says. “The idea is to have plans in place to withstand even the things you haven’t thought of. That is the benefit of co-creating with the community, because different people will know different things.”

However, she emphasises, effective collaboration depends on building trust. In the commercial context, there may be a reluctance to share detailed information. “We are a public agency and almost everything we do is public information. Certainly, that could be different working with private entities. Everybody working together has their own constraints – that’s what makes the community building fun and challenging. But resilience can’t be done in a silo. And with the world changing, it’s just a never-ending journey to keep up to date on what we need to be thinking about.”

### Climate concerns

While many ports are planning and preparing for the impact of climate change, some are feeling that impact already. Eranda Kotelawala, chief executive of the Solomon Islands Ports Authority, says: “Some smaller jetties and piers on our islands

have already gone under water. Sometimes we can’t use some of our docks because the water comes up to deck level so it is unsafe to operate. We are upgrading some of our domestic and international maritime infrastructure to cater to the rising sea level; we are raising the level by almost a metre to withstand storm surges and the rising sea levels we have encountered in the past decade, which are going beyond the forecast. For us, the time to act is now. We must make our maritime infrastructure more resilient, because we bear the brunt of climate change more than others.”

From the Pacific island nation’s point of view, there is an urgent need to understand the priorities and consolidate projects accordingly, says Kotelawala – they don’t have the luxury of waiting for the possibility of new technological developments in the longer term. “We need to look at the short and medium term. Climate change is happening right now and we need projects that give the greatest impact in the shortest period of time.” ■

*For further information on this topic please refer to the IAPH Risk and Resilience guidelines for ports: <https://bit.ly/RiskandResIAPH>*

# Steering a new course

Saudi Arabia's maritime industry is preparing for a new and more prominent role within the global supply chain



**S**audi Arabia's ports are experiencing a time of rapid change and transformation.

With the ambitious Vision 2030 guiding Saudi Arabia's transformative journey, economic diversification stands as a pivotal goal, propelling the Kingdom from a regional player to a global leader. Central to this strategy is the National Transport & Logistics Strategy (NTLS), which aims to elevate the logistics sector's contribution to the economy to approximately \$12 billion annually by 2030.

The strategic location of Saudi Arabia places it at the heart of global trade routes, marking the Kingdom as an epicentre of commerce and a gateway to the world. This underscores Saudi Arabia's potential to revolutionise global trade dynamics.

Leading this transformation is the Saudi Ports Authority (Mawani), which is investing heavily in infrastructure to enhance the capacity of key ports such as Jeddah Islamic Port and King Abdulaziz Port. In 2023 alone, a total of \$3 billion was allocated for infrastructure development at these ports, establishing logistics parks and dedicating \$1.9 billion to developing and operating two advanced container terminals.

At Jeddah Islamic Port, the introduction of cutting-edge technology and a business-friendly environment has been instrumental in attracting world-class investors in shipping and logistics. New terminals, deeper drafts to accommodate the largest mega ships globally and advanced cargo-handling systems have been implemented, alongside the construction of new berths and expanded facilities.

In August 2024, Maersk unveiled its largest logistics park at Jeddah Islamic Port, a sprawling 225,000-square-metre facility built with an investment of nearly \$350 million, solidifying its

status as the largest single-site logistics and services facility globally. Mawani is similarly building partnerships with global industry giants such as MSC and CMA CGM.

On the Arabian Gulf, King Abdulaziz Port is emerging as a strategic hub, with streamlined operations, new container terminals and enhanced connectivity to serve shipments traversing the world's busiest energy corridor. Mawani is pioneering the integration of 5G technologies, AI, and the Internet of Things through its Smart Port initiative, in collaboration with industry giants like STC, Ericsson, and Huawei, transforming Saudi ports into intelligent trade gateways.

In early 2024, Mawani launched the Ports Community System, a comprehensive digital platform developed with Tabadul, a leading Saudi company, for exchanging information electronically. This platform offers access to over 250 services and connects all stakeholders involved in port operations, from shipping lines and cargo owners to customs authorities and logistics providers. Concurrently, initiatives are underway to reduce carbon emissions and enhance sustainability and efficiency, aligning with Vision 2030's sustainability goals. Notably, in June 2024, a significant contract was signed with SANY Heavy Industry for the manufacture and supply of 80 electric terminal tractors, which is a key component of this drive.

As Mawani continues to expand both its capacity and capabilities, it actively seeks to forge new partnerships with international industry leaders in shipping, maritime and logistics. These developments position Saudi Arabia as a pivotal enabler of global trade, uniquely situated at the crossroads of three continents and signal a promising era of opportunity and growth for the Kingdom. ■



**PAUL GORIS**

Executive director, Dry Bulk Terminals Group

## Wake-up call

When discussing onshore power for vessels, the specific needs of dry bulk terminals must be taken into account

**I**APH and Dry Bulk Terminals Group have been informed by a DNV-initiated industry expert group how dry bulk terminals should be managing their onshore power supply (OPS).

Mainly shipowners, plus a very small number of ports, participated in the group's discussions. However, Dry Bulk Terminals Group, as a platform for the industry, cannot share the conclusions of this group. As these conclusions would provide a set of general requirements for an OPS system for bulk carriers to the International Electrotechnical Commission (IEC), IAPH and Dry Bulk Terminals Group members need to be aligned to have the cable management system (CMS) onshore of the ship.

Arguments from this industry group to having the CMS onshore are one-sided, potentially leaving the terminals to solve the problem and to make the investments. The group is claiming that the CMS is located on the shore in every other shore power standard, apart from container ships and terminals. Tankers, Ro-Ro, cruise, PCTC and LNG are used as examples to make this claim for dry bulk vessels. And another claim is that there are much fewer berths equipped with shore power than ships making the total investment smaller and installation less complex.

What remains forgotten is that dry bulk terminals would have huge operational challenges for having the CMS onshore. Examples include mobile cranes that should be able to move freely, as each dry bulk commodity needs to be loaded or unloaded in a different way. Not to forget about rail-guided gantry cranes alongside many dry bulk terminals. The container

industry has chosen to have the CMS on-board because of this reason – which is a lack of space with large gantry cranes at the quay.

Lowering cables from ship to shore is much easier than installing cranes with up to 20 metres reach and require less operational procedures land side.

When vessels would also like to maintain flexibility in mooring positions along the berth, the terminals would have to invest in multiple or movable cable cranes, which would again increase costs significantly.

Different than on liquid or LNG terminals, dry bulk terminals present more dusty environments that can easily deteriorate moving equipment. The challenge for each dry bulk terminal is to keep the dust or spillage on the terminal in order to mitigate it and not to have the vessel exposed to it. It is in the vessel owner's own interest this remains as a standard on dry bulk cargo handling.

Simply concluding the investment should be made by terminals and ports is again one-sided. Compensation by governmental funding is an assumption made, yet this differs greatly per government and municipality. Besides this, leaving it up to government, and keeping the favours on board, is again one-sided.

We all confirm our commitment to the greening of our world and for our industry. As the DNV-initiated bulk carrier shore power group will make its requirements to the IEC shortly, both IAPH and the Dry Bulk Terminals Group will stay alert to have this arranged in our common interest. In other words: cables aboard! ■

*IAPH members are asked to send their technical arguments favouring CMS on-board to [antonis.michail@iaphworldports.org](mailto:antonis.michail@iaphworldports.org)*



# Mapping a new world in logistics

**JAFAR BEDJA** and **SYLVAIN NAETS**, co-founders of Ortelius, believe their new digital platform will transform how ports connect with storage providers and cargo planners

**W**hat is Ortelius? Ortelius isn't just a company. It's a nod to Abraham Ortelius, born in Antwerp in 1527, and celebrated as the creator of the first European world atlas and a pioneer in understanding continental drift. His insights into how continents might have once been connected inspired us to name our company after him. At Ortelius, we believe space is one of humanity's most valuable assets. Our mission is to make existing spaces more visible and more accessible through our platform, thereby optimising port storage space utilisation across the globe.

## Where did the idea come from?

Ortelius emerged from Sylvain's extensive experience in the logistics sector, which includes his time at Contralo, a cargo forwarder operating out of Antwerp and Singapore, a company he later sold to Manuport Logistics. He noticed that a team of 15 people spent countless hours daily on calls and emails trying to get hold of the right people across a global supply chain. After meeting Jafar, who brought expertise in space-sharing platforms and connecting communities, the concept of Ortelius took shape. Like Abraham Ortelius, both were born in Antwerp.

## The Ortelius platform

In essence, Ortelius helps move cargo from A to B with less time spent and making optimal use of available assets (space in warehouses, containers, ships) through the use of a web-based platform that connects and benefits all stakeholders within the global logistics community. The platform allows ports and harbours worldwide to become visible to the entire logistics community. Subsequently, all storage providers within those ports can be activated on Ortelius where to list their available storage spaces and services. This system then becomes a marketplace where cargo planners can find and secure what and who they are looking for in a more efficient way. By bridging the gap between ports, storage providers and cargo planners, Ortelius enhances visibility and optimises operations across the logistics chain.

## Key benefits

One of our primary advantages is our non-intrusive approach to pricing and competition. By providing only the essential tools for optimisation, we enable storage providers to use Ortelius as a lead-generation tool without disclosing sensitive data. Our platform streamlines the process for cargo planners,



allowing them to broadcast a single request to multiple storage providers with the necessary filters applied, saving time and effort. Additionally, our standardised port profile pages simplify access to related services for cargo planners, addressing the inconsistencies often found on individual port websites.

## Smoothing the supply chain

Ortelius increases utilisation of existing storage spaces, reducing the need for new construction and easing congestion at highly-utilised docking terminals by offering alternative solutions that, without Ortelius, cargo planners may not have considered. The platform's data analytics and AI-driven insights can help predict seasonal volumes and potential congestion points, allowing for proactive management of supply chain logistics. As ports adapt to new challenges like carbon storage and hydrogen production, Ortelius offers a part of the solution by mapping new hinterland locations, helping to distribute the load and prevent bottlenecks.

## What is the next step?

We are currently in phase one of our rollout, focusing on on-boarding ports and harbours, with our launch set to coincide with the World Ports Conference in Hamburg (8-10 October 2024). Ortelius will also be exhibiting at the event in Hamburg. So now is the time to get your port verified and activated on Ortelius in support of your local port community of storage providers, shipping lines, cargo planners. Phases two and three of the rollout will target storage providers and cargo planners. Through this platform, we aim to foster collaboration, transparency and efficiency within the entire global maritime supply chain. We currently have a database of about 160 ports worldwide, open for verification and addition of storage providers on the platform. ■

**Pictured:** Sylvain Naets (left) and Jafar Bedja (right), co-founders of Ortelius at Port of Antwerp-Bruges  
Photo credits: Ortelius <https://ortelius.app>

# Closing the gaps

Enabling digitalisation in African ports will be essential for the continent's maritime sector to grow and prosper in the near and far future

# Q&A



**MARK WOOTTON**

leading professional on smart ports, Royal HaskoningDHV

**Q: Please give us an introduction to the African ports digitalisation study conducted by Royal HaskoningDHV?**

**A:** The African ports digitalisation study was a pan-Africa study on port digitalisation completed in 2023 in cooperation with the World Bank, the International Association of Ports and Harbours, the Africa Transport Policy Programme (SSATP) and the African Union Commission. Our team surveyed 39 different ports in 31 African countries and made a specific digitalisation profile for each of these ports. The aim was to assess the status of digital maturity within the ports and also find what socio-economic aspects are limiting or enabling the digitalisation of a typical African port.

**Q: What was the motivation behind the study?**

**A:** Leveraging digital solutions to enhance performance along regional transport corridors is a key focus of the SSATP Fourth Development Plan (SSATP-DP4) strategy. Prior to the study it was unclear what the status was in adopting digitalisation in the maritime sector in Africa. More importantly, since 1 January 2024, all IMO member states are required to use a centralised digital platform or Maritime Single Window (MSW) to collect and exchange information with ships calling at their ports. It is important for the international maritime community that African ports align with global developments and standards.

**Q: What is the status of digital maturity in African ports?**

**A:** African port-level digitalisation is not uniform. Digital maturity was found to range from very basic to advanced, across

the continent. The study found that digitalisation is a self-reinforcing cycle: ports with advanced digital systems tend to continue improving, leveraging their organisational capacity and strategic planning. However, the reverse is also true. Very few ports have no digital awareness or ambitions. Most ports have foundational systems like customs or terminal operating systems, but there's a notable reluctance towards full-scale automation, possibly due to concerns over job loss. The study highlights a strong desire among ports to adopt digital tools, but this is often hampered by a lack of government support and investment. Cybersecurity remains a critical weakness, with most ports ill-prepared to handle data safely. IT infrastructure varies widely, with resilience generally lacking. The study underscores the importance of collaboration among supply-chain stakeholders and cautions against overgeneralising the digital readiness of African ports.

**Q: What do you identify as the main drivers or barriers in digitalisation?**

**A:** Despite the common misconception, economic indicators like GDP are not reliable predictors of a port's digital maturity. However, it was found that trade facilitation and policy

implementation have a significant correlation with digital maturity in Africa; It was observed that the existence of policies on paper does not guarantee their execution. Additionally, both the data, and African ports themselves, emphasise that ICT infrastructure and connectivity is essential for digital, smart port initiatives to become feasible in the first place.

**Q: How can we enable the digitalisation of the African maritime sector?**

**A:** Firstly, it is paramount for ports to become aware of the MSW requirements of the IMO and to understand what is required from them. Besides this, building local knowledge and skills has to be facilitated by training and growing IT teams and facilitating regional port cooperation. Ports should also be better aligned with their governments to create effective policies that can materialise. Finally, the gradual growth in ICT infrastructure across the continent should be accelerated.

**Q: What else can you tell us about your company's approach to smart ports?**

**A:** With 140 years of experience and one of the largest groups of maritime engineers, Royal HaskoningDHV offer strategic, engineering and operational expertise to optimise port facilities. Our dedicated team of smart port experts support keeping maritime infrastructure running in an efficient, safe, sustainable and cost-effective way. We offer digital port consultancy for new and existing facilities and services to help adopt big data, terminal automation and digital twins. ■

Find the report at: [ssatp.org](https://ssatp.org)



# Boudewijn Siemons

Boudewijn Siemons, newly-appointed CEO at Port of Rotterdam Authority, is embracing the energy transition and other critical challenges, as he seeks to future-proof Europe's biggest seaport and position it as a role model for the future

## MARTIN CLARK

**A**s the new head of Europe's busiest port in a rapidly-changing industry, Boudewijn Siemons brings a stabilising presence to his team and the community he serves. He brings with him a wealth of experience not only in the maritime sector, but also in infrastructure and energy — now among his priorities at Rotterdam.

As well as the energy and feedstock transition, and all its far-reaching consequences, he lists security of supply and the port's all-important societal role as stand-out challenges.

"Our energy transition has started, but our feedstock transition still has to take place. It's an enormous undertaking," he says.

A number of flagship energy projects are underway at the port. They include Europe's largest electrolyser; the backbone pipeline to the Dutch hydrogen network; various bio-refining projects; plus a huge carbon capture and storage project, Porthos.

Despite the complexity of these projects, Siemons is keen to position Rotterdam as frontrunner in the clean energy transition.

"Feedstock and energy transition is not only a technical matter, it deals with legislation, international supply chains, geopolitics — there's a lot that comes into it. In the end, getting everything together for commercial companies to take a positive Final Investment Decision on an upgrade or a new-build that supports the energy transition, that is a daunting task," he says.

"Here at Rotterdam, we're not waiting, we're showing the market it can be done."

### Future-resilient ports

As the primary gateway into north-west Europe, Rotterdam plays an integral role in the smooth functioning of the European economy. It means resiliency

and security of supply — navigating everything from shifting geopolitics and climate change to cyber attacks — are similarly high priorities.

Siemons also appreciates the societal role his port fulfils within the community.

"A lot is going to change and we can only face those changes if we have a licence to operate from the surrounding communities and if society understands the role we play as a port. That means explaining what we're doing, asking for input, and actually executing on that input. We should never take our licence to operate for granted, it is something we must take seriously."

At the same time, all ports must continue to provide the same core, traditional services — supporting the local economy, generating a healthy income, all underpinned by an unwavering commitment to safety — in the decades ahead.

"In 20-30 years from now, the port will look much the same, but under the hood it will be renewable. Some people might expect the port to be filled with solar panels, wind turbines, that it will make no noise and it will smell like roses — that will not happen. A bio refinery and a fossil fuel refinery look much the same, and yet one is part of the solution, the other is part of the problem.

"So in the end there will be industry, there will be logistics, there will be production, there will be different forms of energy, there will be some changes such as fewer oil tanks and more ammonia tanks, but on the whole, you will not be able to tell the difference."

The authority's own role could evolve in this time too, as it responds to changes and demands from its customers and community and as the port ecosystem evolves.

"We already invest up to €350 million annually in infrastructure, mostly

connecting infrastructure, whether it's quay walls for customers, which we can then lease back, or other infrastructure. For example, somebody's residual heat can be somebody else's process heat and I'm more than willing to put in a steam pipeline between the two and rent it out to them to make it possible for them to optimise their operations.

"In the end, we are an infrastructure partner and we will remain so. But, in the future, the infrastructure you invest in might differ from the infrastructure you used to invest in. So maybe that could mean investing in 5G networks, glass fibre or an ammonia pipeline system."

### Climate action

The Port of Rotterdam is co-founder and active participant of the World Ports Climate Action Programme (WPCAP), with a variety of climate action-related projects, ranging from improving efficiency (Port Call Optimisation), to accelerating the transition, to clean shipping fuel (Port Readiness Level).

Siemons thinks the main achievement from the port's involvement has been in raising awareness.

"The fact that we work together with other major ports in the world, and that we align and exchange experiences, that's very important, because, just like in safety, there's no competition in the energy transition, it's something for the greater benefit."

In fact, he'd like to see ports work more closely together, when it comes to sharing best practice and experience. The upcoming integration of WPCAP in IAPH fits in perfectly with this.

"I think ports too often still have the idea they're competing with each other when they hardly ever are. We all have our own hinterlands, we all have our own rules and sometimes there's a bit of overlap. So I think if we were able to consolidate, there's room for greater traction and more productivity by working together smarter, and I think IAPH can play a role there." ■

# World Ports Sustainability Programme

With the IAPH Sustainability Awards 2024 being unveiled at the World Ports Conference in Hamburg this October, P&H looks at how the initiative has captured the imagination of port teams and executives around the globe

The World Ports Sustainability Programme aims to demonstrate global leadership of ports in contributing to the Sustainable Development Goals of the United Nations. The programme aims to empower port community actors worldwide to engage with business, governmental and societal stakeholders in creating sustainable added value for the local communities and wider regions in which their ports are embedded.

It is an initiative that has drawn attention from ports and their communities around the world. There are now more than 400 projects and over 160 ports in 60 countries worldwide showcasing everything from clean energy excellence to community building.

Here, P&H captures in data form a snapshot of the success of the programme. For further information and to get involved please visit: [sustainableworldports.org](https://sustainableworldports.org) ■

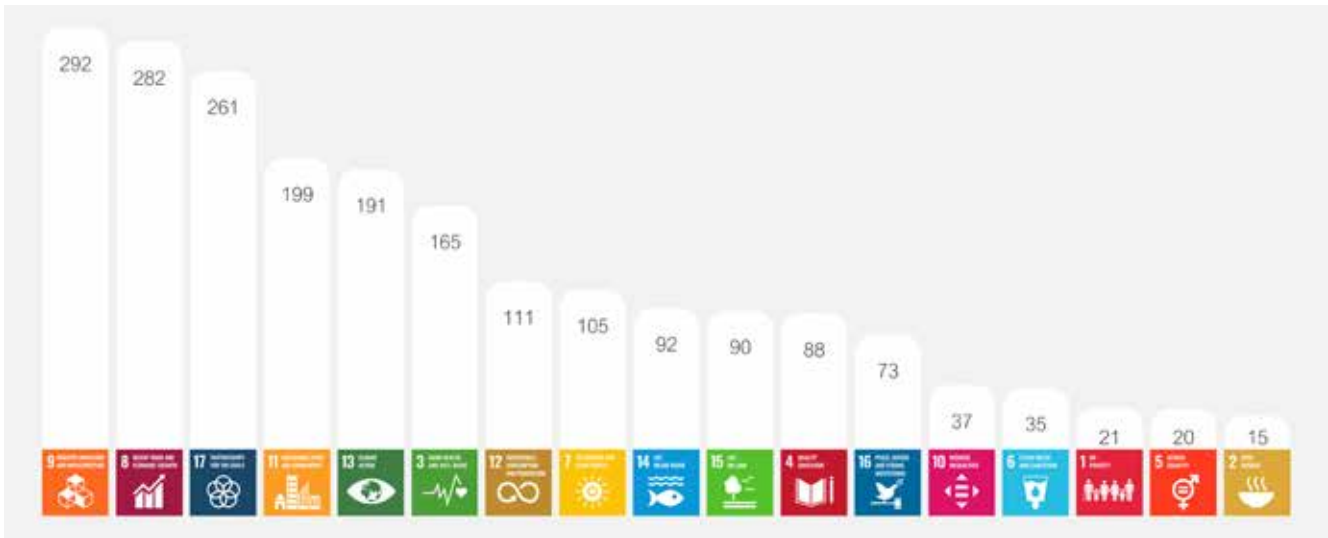
## WPSP database of sustainability projects



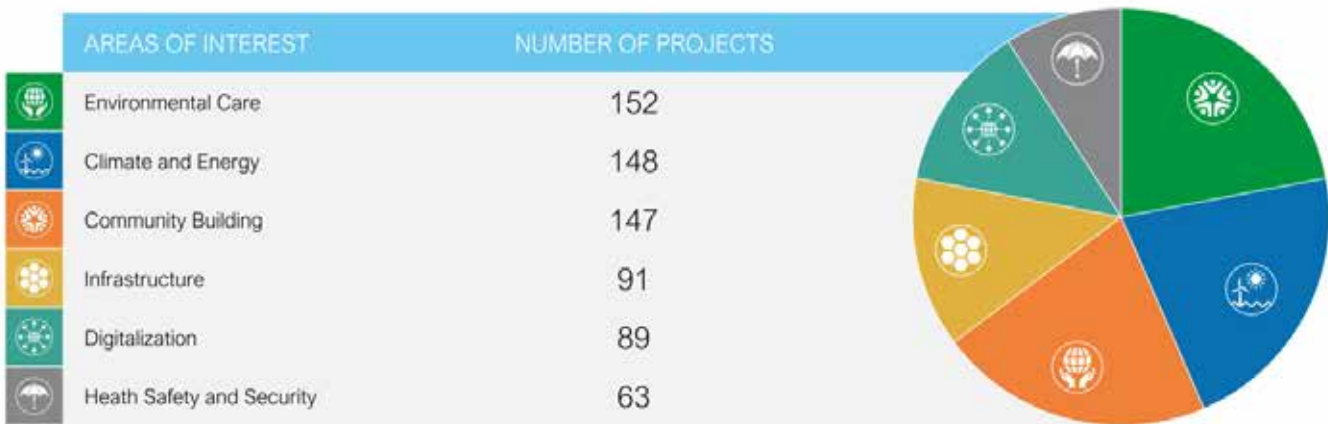
## Top ten countries (number of projects)



### Number of projects per SDG



### Number of projects per area of interest



### Top ten ports (number of projects)



# New rules loom for autonomous vessels

With rapid change now a part of all industry sectors, across all continents, driven by advancing technology, economics and environmental pressures, expect to see more autonomous vessels in our waters in the coming years. But what does it mean for the ports sector?

MARTIN CLARK



**U**ncrewed surface vessels (USVs), or autonomous vessels, are no longer the stuff of science fiction. Far from it.

The International Maritime Organisation (IMO) uses the acronym Maritime Autonomous Surface Ships (MASS) to describe commercial vessels that operate with little and, in many cases, no human intervention, using sensors, software and communication systems to navigate, avoid collisions and perform the tasks and functions of the vessel.

A large and growing fleet of fully autonomous and semi-autonomous vessels is already at work on commercial, security and other projects around the world. This high-tech fleet ranges from large, uncrewed container vessels to small-scale battery-electric drone-like vessels deployed to collect data on pipelines or carry out environmental surveys.

The fleet includes the world's first autonomous and zero-emission container vessel, Yara Birkeland, in Norway, which was put into commercial operation in 2022.

Built by Yara and Kongsberg, the ship is intended to remove 40,000 diesel-powered truck journeys every year, and reduce NOx (Nitrogen oxide) and CO<sub>2</sub> emissions as it transports mineral fertiliser from a production plant in Porsgrunn to a regional export port in Brevik.

More USVs of all types are on the way. Avikus, a subsidiary of Hyundai Heavy Industries specialising in autonomous navigation technologies for ships, has teamed up with the American Bureau of Shipping (ABS) to collaborate on

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**Picture:** Yara Birkeland, the first autonomous, zero-emission container ship  
Photo: Knut Brevik Andersen, Wilhelmsen Ship Service/Yara International ASA

real-life trials of autonomous ship technologies.

ABS is also working with Saudi Arabia's Transport General Authority and Zamil Marine Company to review the development of regulations, standards and practices for the construction and use of autonomous vessels.

At the end of 2023, Belgian vessel innovator Zulu Associates and subsidiary, Anglo Belgian Shipping Company Ltd, unveiled the latest designs for a zero-emission short-sea vessel featuring wind blades and intended to be fully autonomous, alongside Dutch naval architects Conoship International.

"Autonomy is still in its infancy but we want to show what is possible and support the process of regulation keeping pace with innovation," said Zulu Associates CEO Antoon Van Coillie.

### Commercial applications

It is a segment of the shipping and maritime industry that is poised to grow with the global USV market projected to be worth \$3.3 billion by 2032, according to data from Fortune Business Insights.

USVs are already commonly used for commercial purposes across a host of applications, from surveillance and monitoring ports or offshore oil and gas facilities to detecting marine pollution and oceanographic surveys.

In March this year, Shell Petroleum Development Company (SPDC) in Nigeria deployed a USV for a pipeline route survey in the oil-rich Niger Delta lasting 166 hours. It says the technology saves time and cost and reduces exposure to personnel in a volatile environment.

"This is the new face of survey in Nigeria, in which on-site and remote operators deployed the USV," said SPDC's chief surveyor and head, offshore survey operations, Steve Keedwell.

It was the first deployment of a USV for a pipeline route survey in shallow water in Nigeria and the longest such single mission in the Shell group.

Deploying the USV also reduced CO<sub>2</sub> emissions by 97% as the vehicle is designed as diesel electric, Keedwell added, underlining the technology's eco appeal.

"The efficiency of data acquisition coupled with improved data quality whilst reducing personnel exposure to zero is transforming how we execute surveys."

However, not all autonomous vessels are deployed with such good intentions.

Security agencies have reported several incidents where USVs have been used to try and disrupt commercial shipping passing through or near the Red Sea.

In 2022, Spanish police also seized three underwater drones reportedly capable of carrying up to 200kg of cargo and built to smuggle drugs across the sea from Morocco.

Armed with GPS navigation systems, the unmanned submersibles could potentially be operated by drug traffickers anywhere in the world with an internet-enabled device.

### Collaborative approach

Naturally, the introduction of such technology brings with it a range of new challenges, including for ports and harbours where they are involved.

Behind the scenes, the IMO is already working to integrate new and advancing technologies in its regulatory framework, balancing the benefits of USVs with the need to ensure the safety of life at sea, as well as any cargo on board, and of the vessel itself.

It has formed a MASS working group with an ambition to adopt a non-mandatory goal-based MASS Code from 2025, to form the basis for a mandatory goal-based MASS Code, expected to enter into force on 1 January 2028.

There are questions to be asked in terms of insurance too, though great strides have been made already after the Shipowners' P&I Club launched the world's first autonomous vessel policy back in 2018.

But the sheer complexity of utilising USVs is apparent from Shell's own work in Nigeria, where it partnered with a host of stakeholders to deploy its technology, including Nigerian Upstream Petroleum Regulatory Commission; NNPC Upstream Investment Management Services; Nigerian Content Development and Management Board; Nigerian Navy Hydrographic Office; and the Nigerian Maritime Administration and Safety Agency.

It also worked closely with a local vendor, Compass Survey Limited, which deployed the vessel with support from its foreign partner, Unmanned Survey Solutions, UK.

### Challenges for ports

For ports, the complexities, in essence, are perhaps two-fold: firstly, specific conditions, regulatory and operational, for handling USVs; and secondly, issues to be addressed for mixed traffic at the harbour.

On the first part, there are specific conditions to be addressed when autonomous ships are starting to reach ports. Currently, a great deal of communication with ships is executed by radiotelephony, but communication with MASS will need to be data-driven and the ports need to address that both from an operational as well as from an equipment point of view.

Ports will need to establish the necessary safety margins, operational guidelines and also the infrastructure to communicate with MASS.

What is important is that the standards need to be established to ensure all MASS will use equipment and operational algorithms that are defined worldwide, so any MASS can call any MASS-ready port.

But this is only the tip of the iceberg. Autonomous mooring and unmooring, safe entrance into traffic lines within ports and other aspects need to be defined. Ports need to have high-precision charts with centimetre accuracy, 100% coverage for communication and continuous monitoring with intervention capabilities. Further, the pilotage issue with USVs needs to be addressed.

On the second issue, for the foreseeable future ports will also be handling mixed traffic, both MASS and conventional ships. As such, ports need to handle both operational aspects and also how to interact with both type of ships at the same time. The fact that not all conventional ships may be able to communicate or interact with MASS is to be considered, which may require additional coordination activities by port actors. ■



**ANDREW PENFOLD**  
Independent maritime  
economist

# THE COLUMN

## Line investment in terminals: a good thing?

**C**ontainer lines are stepping up investments in terminals. This trend has been accelerated by the cash available, first from the Covid-19 freight bubble and, this year (to a lesser extent) by the Red Sea crisis, which has further inflated earnings. Line investment of these windfall profits has focused on either supporting logistics infrastructure or on terminals. The shift from common-use to line-owned or joint venture terminals is well established but is becoming a dominant trend. Is this a good thing for ports?

On the one hand, Port Authorities (PAs) have, in general, supported this trend for the following reasons: they have been keen to use this tool as a means to anchor significant customers in a port and, secondly, where new capacity is planned, this serves to ease market and financial case-building. Evidencing 'need' for new capacity is increasingly critical - especially in times when environmental concerns are at the fore. This pattern has been positive for major ports as they seek to boost trade volumes, with resulting regional and local economic benefits in terms of labour and 'spin-off' activities - until recently, the key priority for most PAs.

However, there are risks to this approach. Overall, analysis confirms utilisation rates of line-owned terminals tend to be somewhat lower (although clearly a positive in the ramp-up stage of terminal development) and it has always been difficult to market excess capacity to non-alliance third parties. This means with any slackening of growth or loss of a major line, then terminals may remain under-utilised or even empty for a considerable period. Although this may also be true for stevedore-owned terminals, the latter invariably recorded a more rapid customer substitution in these circumstances.

In addition, the market share of major

lines in specific port ranges is now very high with, for example, MSC and CMA CGM each offering terminals in most major North Continent ports. This has come in for only limited regulatory examination - in contrast to stevedore terminal acquisitions. With some alliances now looking increasingly at the transshipment model for serving regional markets (for example, MSC, CMA CGM) this means that, with terminals in several competing ports, large volumes of transshipment boxes can be readily switched between locations. Under these conditions, the priority of the local market becomes less pronounced. This gives increased market power to the lines in discussions with their landlords. This has been seen recently in the increasingly competitive issue of port dues and berthing priorities.

In the longer run, PAs need to think carefully about this approach. Container lines rolling in cash is not the typical profile for the industry. Periods of boom and then bust are the story of container shipping over the past 30-plus years. A brief look at the line order book confirms over tonnage is on the horizon. With any macro-slowdown how will volumes and profitability develop for the lines? In the past, these downturns have seen pressure on handling prices and volume commitments.

The moral must surely be: look closely at the line ownership structure. Counter-party risk is key when signing long-term terminal contracts. Volume commitments, please. ■

### ABOUT THE AUTHOR

**ANDREW PENFOLD** is an independent maritime economist with experience in market and financing studies for the port and shipping industries. He has over 30 years experience focusing on commercial market studies in the shipping and port markets at a global level.

# QUICK 10



**Dr NOEL HACEGABA**  
Chief operating officer  
Port of Long Beach



**N° 1**

**Favourite app?**

YouTube, because so far there is nothing I haven't been able to find and new content is constantly being uploaded. A close second is LinkedIn, a good place to network and share insights.



**N° 2**

**Something unexpected that brings you joy**

A surprise visit or unexpected email/text from an old friend or family member. Or, when a favourite song suddenly plays in the background. These pleasant surprises always lift my spirits.



**N° 3**

**An item you cannot live without and why?**

The practical answer is my smart phone, since that is how I stay connected with loved ones and friends. But I can't imagine being apart from my guitars for too long.



**N° 4**

**What world record do you think you have a shot at beating?**

I wish it could be having the world's largest guitar collection. Maybe not a world record, but in my organisation I probably have the inbox with the most emails!



**N° 5**

**A quality that impresses you in a business partner?**

A true servant-leader. Someone who prioritises the needs of their team members and encourages their personal and professional growth. A good sense of humour is also appreciated.



**N° 6**

**What mythical creature would you like to believe was real?**

A griffin, a hybrid of a lion and an eagle. Imagine having the ability to roar like a lion and fly like an eagle and being the king of the jungle and the king of the sky all at the same time.



**N° 7**

**If you could time travel where would you go and what would you do?**

I would go back in time to visit my ancestors to see how they lived and how their decisions led to me.



**N° 8**

**Dream dinner date and why?**

Malcom McLean, the father of containerisation. I'd like to ask him if he ever imagined how his invention would change international commerce forever.



**N° 9**

**Three things you take to a deserted island?**

Large Swiss Army knife, water purifier, solar-powered satellite phone.



**N° 10**

**Best advice ever received?**

The best way to predict the future is to create it (Peter Drucker). You can't go back and change the beginning, but you can start where you are and change the ending (C.S. Lewis). The grass is always greener where you water it (my wife).

If you would like to be featured in this column in a future edition of P&H please email: [editor@ports-and-harbors.com](mailto:editor@ports-and-harbors.com)



# HafenCity Terminal

**M**uch is happening in Hamburg, host city to the World Ports Conference 2024. A major hub for cruise tourism already – you can already see many of the world's largest passenger ships roll in and out of Hamburg harbour – there is much more to come.

The new HafenCity Terminal is currently being built in Hamburg Überseequartier and will comprise two berths – 345 metres and 230 metres long, max. draught of 10.3 metres – for up to 1,800 passengers.

It means cruise ships calling at the terminal will berth directly in the heart of the city near the Elbphilharmonie and right next to historic Speicherstadt, a UNESCO World Heritage Site since 2015.

It is the latest chapter in a long and illustrious history for Hamburg as a maritime centre. In May 2024, the city enjoyed the largest port festival in the world in celebration of this year's 834th anniversary of the Port of Hamburg.

In 2023, Hamburg was also named Germany's top cruise port with over 1.2 million passengers, reflecting a huge rebound for the industry after the coronavirus pandemic. All in all, 51 different cruise ships called 278 times at the port, of which eight were maiden calls. A further 62 calls were made by river cruise ships.

The new cruise terminal, which is set to open in 2025, will build on this momentum. The facility will be part of a building ensemble with an underground bus station, car parking and taxi access as well as hotel and retail space. It will also be equipped to deliver shore power to calling vessels at berth, underscoring Hamburg's commitment to environmental performance.

Overseeing the project is Simone Maraschi, managing director of Cruise Gate Hamburg GmbH, the operator of Hamburg's cruise centres, who was recently elected as the new chairperson of Cruise Europe, the association representing cruise ports across Europe. Maraschi is also the Chairman of IAPH's Cruise committee.

The expansion works at the cruise terminal in HafenCity are progressing well. From 2025, Cruise Gate Hamburg will have additional new berths available conveniently located close to the city centre giving tourists easy access to public transportation and the southern Überseequartier with its many high-quality and diverse offerings.

Until the completion of the new terminal, and beyond for a total of 10 years, the existing Baakenhöft cruise centre is to serve as a temporary fallback option with additional berths in HafenCity. Hamburg has two other cruise centres, Altona and Steinwerder, currently Hamburg's most recent terminal which launched in 2015. ■

**Pictured:** The new HafenCity Terminal is taking shape and scheduled to open in 2025, reinforcing Cruise Gate Hamburg's position in Germany's growing tourism trade

Photos: moka-studio/URW





## PERSPECTIVE PORT SECURITY

# Countering drug trafficking

**W**e know drug trafficking is an organised criminal activity that impacts all levels of society. The long-term solution lies with addressing the societal factors that create the demand for drugs in the first place. However, in the meantime, the crews of ships on international voyages, and the ports serving them, are caught up in the middle of this complex industry.

### Criminalisation of seafarers

Few would dispute that shipping is a major vector for the illegal drug trade. However, there is a vast difference between being knowingly concerned in the importation of controlled drugs and being an unwitting accomplice. Rather worryingly, there has been an increase in the number of detention cases (both of seafarers and ships) in cases when drugs are discovered on board despite the lack of any evidence of crew involvement. This has led to serious miscarriages of justice where seafarers have been detained without charge,

without credible evidence of their involvement and in some current cases, without being paid. For some countries' law enforcement agencies, taking what might appear to be tough action may seem to be sending the right message to deter further smuggling. However, without actual evidence of wrongdoing by individual seafarers (and each one is an individual person), locking up the wrong person just smacks of poor policing. The reality is the criminals care nothing for their victims and will not be in the least bit deterred.

An additional challenge is that the monetary value of the illegal drugs trade means corruption is a factor, both actively to facilitate smuggling and passively by getting officials to turn a blind eye. This has also led to an increase in drug-related threats and violence levels against seafarers, cargo agents, port workers and officials.

**Pictured:** All sides have a role to play in countering illicit trade at ports  
Photo: Altitudevs | Dreamstime.com

The effects of corruption and poor policing are to diminish the reputation of the port and make it less attractive as a business partner for ship operators. At a time when seafaring as a career is seen as becoming less attractive and where more technology on board ships means that seafarers will need to be better trained and educated than before (and therefore more employable ashore), port states' failure to address these issues puts them in danger of scoring an own goal.

Clearly, we need to improve collaborative efforts to reduce the quantity of drugs moved by ships; to reduce the incidence of seafarers being abused by smugglers as mules; and to reduce the number of cases of detention of crew and ships where there is no indication of crew involvement. The question is: how do we do that?

### The 'Three Cs'

The key to addressing drug trafficking is cooperation, coordination and



## ABOUT THE AUTHOR

**CHRIS TRELAWNY** was commissioned as deputy secretary general of INTERPORTPOLICE on 1 January 2022. Prior to that, he spent 18 years in the International Maritime Organisation Secretariat focused on multi-agency approaches to maritime security and facilitation. Before joining IMO in 2003, Chris spent 10 years in aviation security roles and 8 years as a customs officer.

communication between law enforcement, border control authorities and the private sector. The relationship between ports and the ships that they serve is a critical factor. Increasing cooperation between ports and ships will improve efficiency and facilitation. Greater transparency in the maritime sector will also drive improvement. For example, naming ports that do not protect ships and crews from criminal activity – ports in countries that do not proactively support interagency cooperation; ports in countries most susceptible to the drug trade; and ports where seafarers are more likely to be unjustifiably criminalised – will enable ship operators to make more informed decisions on choice of destinations.

There need to be partnerships and active collaboration between seafarers, companies, port operators, shipping agents, security companies, law enforcement and border control agencies, through national and port level maritime security and facilitation committees. Engagement with ships' representatives, port management and relevant private sector entities in such committees would enhance understanding on both 'sides' and facilitate a multi-layered approach to addressing organised crime as well as

enhancing safety, security and efficiency.

Port security and border control procedures should embrace the whole port security management system, including people, equipment and risk management procedures. Counter narcotics measures should be integrated into wider port security measures, including those mandated by the International Ship and Port Facility Security (ISPS) Code, and action to counter stowaways, human traffickers, the illegal wildlife trade, theft and other illicit activities.

The relationship between ports as the service provider and ships as the customer should be considered. Ports should provide appropriate additional security assurance measures as part of their service packages. These could include sniffer dogs, divers, underwater inspections, surveillance, patrolling and guarding and effective access control, the use of which should be documented and certified to the Master as part of the ship's due diligence measures. After all, in any reasonable society, evidence of due diligence should be taken into account when considering if a seafarer is knowingly concerned in criminal activity.

In order to reduce the negative impact of corruption, ports should conduct

background checks on all staff and ensure they are adequately trained before they are issued permits to enter restricted areas. Law enforcement and port personnel, including security personnel, should be rotated through different posts on an irregular basis, screened on entering and leaving restricted areas and subject to oversight in order to reduce their likelihood of being recruited by traffickers.

There is also considerable scope for national and local community engagement and confidential reporting programmes (for example 'SeeSayAct') at all levels. Port workers live in the local communities and are as negatively impacted by drugs and crime as anybody else. Tapping into their knowledge of what looks normal and what looks out of place, if properly managed and acted upon, will provide useful information to counter drug trafficking.

In conclusion, effective cooperation, coordination and communication is the key to effective security – and good security is marketable. Proactive measures to deter and detect trafficking of drugs, weapons, people, wildlife and other contraband and that reduce the vulnerability of port workers and seafarers to organised criminal gangs, will pay dividends in the long-run. ■





**PROJECT FOCUS** VADHAVAN PORT

# Unveiling Vadhavan

Vadhavan port project is a world-class mega port in the making for India's thriving maritime industry, a key part of long-term development plans to upgrade and modernise the sector

**MARTIN CLARK**

India is thinking big. Its government this year approved the development of a new \$10 billion greenfield container port in Vadhavan (often referred to as 'Vadhvan'), near Dahanu, Maharashtra, citing that this facility is potentially capable of "redefining India's maritime trade." Even for a country like India, which now boasts the world's largest population, with over 1.4 billion inhabitants, that's big talk.

Vadhavan is a proposed deep-sea transshipment hub at Vadhavan in the Palghar district of Maharashtra, on India's western flank, facing out to the Arabian Sea, approximately 150 km north of Mumbai. When fully finished, anticipated in 2040, it is expected to be the country's biggest port, capable of handling up to 24 million TEUs a year, and among the leading container ports worldwide.

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**Pictured:** Artist's impression of how the new Vadhavan mega port will look  
Photo: JNPA

It has already fired the imagination of industry partners after initial deals were signed with the likes of APM Terminals, one of the largest container terminal operators in the world. Others to have registered their interest to partner in the large-scale project include DP World, PSA and CMA CGM.

The Jawaharlal Nehru Port Authority (JNPA) is responsible for the port's development, which is now moving forward at pace after the Union Cabinet signed off the project in June 2024 with early ground works set to get underway. The project will be constructed by Vadhavan Port Project Limited (VPPL), an entity that combines JNPA and Maharashtra Maritime Board (MMB), with a shareholding of 74% and 26%, respectively.

But the scheme has not been without its challenges too and getting to this point has taken time. A decade has passed since the initial agreements were inked for the development of the port. A techno-economic feasibility study, prepared by AECOM in 2015 for the Ministry of Ports, Shipping and Waterways and Indian Ports Association, suggested that Vadhavan could be handling up to 1 million TEUs during 2023.

It is not uncommon for timelines to slip on multi billion-dollar projects, but India now seems determined to get Vadhavan done. An initial contract out for dredging and reclamation works has attracted dozens of would-be bidders. Funding is also moving into place, with the government's own Power Finance Corporation expressing a willingness to provide support to the infrastructure scheme.

Major road projects to facilitate construction and link the new port site with major highways are also taking shape. JNPA chairman, Unmesh Sharad Wagh, said this is a "critical activity" necessary to initiate work at Vadhavan. "It is essential for transporting quarry material...to the port, as the local roads are too narrow for such heavy transportation," he noted in a recent media statement. Construction of the port is expected to commence after the next monsoon, once the road connectivity is established.

### Infrastructure investments

It is still only early days, but Vadhavan is a signal to the world that India means business. The port, to be developed on a landlord basis, with basic infrastructure provided by JNPA and terminal-related infrastructure to be developed by private operators, is estimated to cost up to \$10 billion, including the land acquisition component.

This includes the development of core infrastructure, terminals and other commercial infrastructure and logistics projects under various public-private partnerships. The project involves the reclamation of 1,448 hectares of area in the sea and the construction of over 10 km of offshore breakwater.

The Union Cabinet has likewise approved establishing greater rail connectivity with the port to facilitate an upcoming rail freight corridor, providing access to the hinterland.

The scale of Vadhavan is impressive. The long-term vision

“Vadhavan has already fired the imagination of industry partners after initial deals were signed with the likes of APM Terminals

comprises nine container terminals, each 1,000 metres long, four multipurpose berths, including the coastal berth, four liquid cargo berths, a Ro-Ro berth and a Coast Guard berth.

The proposed port will be able to handle 24,000 TEU vessels because of its deep draft of 20 metres, while the cargo-handling capacity of the port is expected to reach 298 million metric tonnes per annum (mtpa). It hopes to grow container capacity to 15 million TEUs by 2035, rising to 24 million TEUs by 2040.

With Vadhavan, the intention is that the facility will also set new standards for India, not only in terms of overall capacity and volumes, but in digitisation, sustainability, skills development and port productivity.

According to JNPA, Vadhvan's port operations will be categorised into two levels of automation in container terminals: fully automated and semi-automated. Automation would help ease port congestion, decrease port storage charges and reduce demurrage and detention, it says.

This would include automating yard operations with automated RTGs in the future and automatic mooring systems installed to reduce ship turnaround times during manual line handling. A performance evaluation system could also be established as part of the maintenance system at the port that will observe and evaluate equipment.

The government hopes to position Vadhavan as a template for sustainability too, with the proposed installation of eRTGs among various

measures to reduce the port's overall environmental footprint. The deployment of systems that minimise processing times will also reduce fuel consumption and air pollution, together with the practice of cold ironing at the berths, utilising alternative power sources to offset the use of heavy fuel oil for a berthed ship.

### International significance

The project's scale, providing access for bigger vessels to enhance cargo-handling capacity, reducing transportation costs and growing India's economies of scale on re-export activities, marks a new level of ambition for India.

In terms of international significance, the all-weather deep-draft port will be a key component of the India-Middle East Economic Corridor (IMEC). This planned economic corridor aims to bolster development by fostering connectivity and integration between Asia, the Gulf and Europe and will incorporate a network of railways, ship-rail transit and road transport routes.

According to JNPA, Vadhavan will serve as the primary feeder port for IMEC, facilitating cargo movement to Chabahar Port in Iran, and the International North-South Transport Corridor, a 7,000-km long multi-modal network for moving freight between India, Iran, Azerbaijan, Russia, Central Asia and, ultimately, Europe.

On the domestic front, the hope is that Vadhavan will contribute to India's overall economic growth, enhancing its



trade capacity and throughput. The port's ability to handle the very largest vessels will raise India's import and export capabilities, potentially increasing the country's global trade volumes and overall appeal to the world's maritime sector.

Again, the port has the potential to cater for the vast hinterland region covering not only Maharashtra, but also the states of Gujarat, Western parts of Madhya Pradesh and the North Indian states.

Currently, Maharashtra has two major ports, Mumbai and Nhava Sheva, also known as Jawaharlal Nehru Port Trust (JNPT). In addition, the region is served by Mundra, in neighbouring Gujarat, India's first private port and one of the country's largest container terminals.

The green light for Vadhavan has triggered substantial interest from industry operators already.

At the start of this year, APM Terminals signed a Memorandum of Understanding for the development of a new container terminal at the proposed mega port.

At the time, Jonathan Goldner, regional managing director for APM Terminals Asia Middle East, said his company is excited about "exploring the opportunity" further at Vadhavan.

"We believe Vadhavan's location, combined with our ability to build and operate world-leading ports, creates an attractive opportunity to support the growth of local manufacturers, exporters, importers and the regional economy in general. The investment will drive the local economy by creating job opportunities for locals," he said.

APM Terminals currently operates two important facilities in India at Pipavav and Nhava Sheva.

Nationwide, Vadhavan will complement the country's 12 other existing major ports, plus around 200 non-major facilities, which together presently handle over 95% of India's trade, although the coming decades are set to see great transformation across the board.



As Vadhavan gets underway, there are plans to build a second mega container port, with the proposed Galathea Bay Port, also referred to as International Container Transshipment Port (ICTP), in Great Nicobar Island, in the Andaman Islands, which sits closer to Indonesia and Malaysia than mainland India.

The government is keen on the project, also estimated to potentially cost up to \$10 billion, due to its proximity to the main East-West world shipping corridor.

The projects tie in with broader strategic national blueprints, such as the 'Maritime India Vision 2030' from the Ministry of Ports, Shipping and Waterways, to accelerate the growth of the nation's maritime sector, and the longer-term Maritime Amrit Kaal Vision 2047, which aims to develop world-class ports and promote inland water transport, coastal shipping and a more sustainable industry.

More broadly, these support another strategic blueprint, Viksit Bharat by 2047, the Modi government's vision to transform India into a developed nation by 2047, coinciding with 100 years of independence from British rule. ■

**Pictured:** India's Vadhavan port is expected to boost India's economic profile Photo: JNPA

# Terminal Island

Remembering the lost communities and almost forgotten history of Los Angeles Harbour, many years before it became the busiest container port in the USA

GERALDINE KNATZ

**T**he Port of Los Angeles, the busiest container port in the United States, is where the hum of cranes and vehicles mask the echoes of a forgotten past.

Over a century ago, where container ships now dock and trains snake their way across the landscape, there were once vibrant neighbourhoods. These communities, woven into the coastal landscape, are long gone; it is a history largely forgotten.

But at one time, Terminal Island – today home to the largest container terminals in Los Angeles – was the playground of the wealthy.

People flocked to their summer homes on Terminal Island, as the *Los Angeles Times* extolled the virtues of island living — the best French chef, a pleasure pier, tennis courts, and golf.

The Terminal and Brighton Beach resort communities sprang up after the Terminal Railway bought the Island and extended a rail line directly from downtown Los Angeles to the resorts in 1891. From the Island, tourists could take side trips to the Hot Sulphur Springs at Whites Point or explore the remains of the ‘hide house’, mentioned by Richard Henry Dana in his book *Two Years Before the Mast*. On holidays such as the July 4 Independence Day celebration, there was such a demand for bathing suits that it was hard to rent a dry one.

## Early settlers

People had begun living on the Island even before the Terminal Railway purchased it and changed its name to be more appealing to tourists. Originally known as Rattlesnake Island, the first residents were squatters who moved to the Island, inhabiting the sandy beaches that had formed after the Army Corps of Engineers began building a rock breakwater in 1871 to protect the harbour’s inner channel.

**Pictured:** Containerised cargo at Terminal Island as it looks today  
Photo: Port of Los Angeles







Sand accreted alongside the breakwater, creating waterfront property where many enterprising individuals staked claims and built precarious homes on stilts out of driftwood and salvaged lumber. Once fresh water was supplied to the Island, homesteading on the newly-created land took hold and it became known as East San Pedro. The community was an eclectic group of Italians, Spaniards, Frenchmen, Scandinavians and Slavic people. They were longshore workers, fishermen, and mariners.

The Island also appealed to educated people who were unconventional in their thinking and lifestyle. An artistic and literary group of the bohemian culture also staked their claims in East San Pedro. But their idyllic bohemian lifestyle was not to last. The location's destiny as a world commercial harbour trumped the desires of the Terminal Island residents, even those who were wealthy and influential. Los Angeles evicted the squatters to widen its main channel. The residents of the beach communities found that their homes were now a mile from the ocean as the port expanded through landfilling. They sold out to local families or for boarding houses.

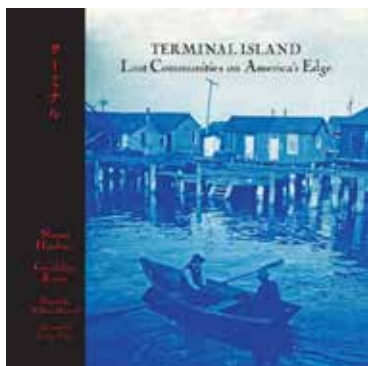
### **Fish Harbour**

The development of the fishing industry and fish canneries profoundly impacted the Island's demographics. The creation of Terminal Island's 'Fish Harbour' marked a dynamic intersection of city government, commerce and a transnational ethnic community. The Los Angeles Harbour Commission's designers could never have predicted the complex manifestations of their early decisions. The canneries built around Fish Harbour supported thousands of jobs and the workforce was primarily Japanese.

The Japanese transformed the Los Angeles fishing industry and introduced the hook-and-line method of catching tuna to the area in about 1912. They would lure schools of tuna to their boat by 'chumming'. Using a bamboo pole and a barbless hook, the men would snap their wrists and flip the fish onto their boat after snagging a bite.

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**Pictured Top:** Waterfront homes. **Above left:** East San Pedro squatters' homes. **Above:** Brighton Beach with swimmers



### **Terminal Island: Lost Communities on America's Edge**

Written by Naomi Hirahara and Geraldine Knatz, with a foreword by William Deverell and an afterword by celebrated actor, George Takei, this insightful work uncovers the untold story of a forgotten chapter in American history: the people who lived in the Port of Los Angeles from 1870 until World War II. Published by Angel City Press.

Thousands of Japanese lived in the company housing provided by the canneries. The Port of Los Angeles leased land to the Japanese to open stores and restaurants. The village was like a large family. Men would often be gone for long periods of fishing. When boats came in, the canneries would blow a whistle, alerting their workers to go to work to begin the canning process. Children learned to take care of themselves.

#### **Terminal Islanders**

All that would change on Sunday morning, December 7, 1941. FBI agents barged into the homes of the Japanese on the Island. Men were rounded up. On February 2, 1941, US President Franklin D. Roosevelt signed Executive Order 9066, creating military exclusion zones and opening the door for mass incarceration of Japanese Americans. On February 22, 1942, the US Navy took control of Terminal Island. All residents of the Island, Japanese and non-Japanese, had 48 hours' notice to vacate. The Japanese residents were interned in camps.

After the war, there were no homes for the Japanese to return to in the harbour. But the close-knit bonds formed

among the Terminal Islanders were strong. In 1971, the former Japanese residents formed the Terminal Islanders, an association devoted to keeping alive the memory of the fisherman's village. Their annual picnic attracts hundreds of their children and grandchildren. The Port of Los Angeles leased the association a parcel of land on the Island for a memorial to the fisherman's village.

This story of a harbour's transformation is not unique to Los Angeles. Across the world, harbours have been sites of profound change, each reshaping its coastal waterfront to meet the demands of commerce or defence. Every port has its history of altering the natural shoreline, reclaiming land, and expanding into the seas.

These changes, driven by the tides of progress, have forever altered the face of coastlines, leaving behind histories that remind us of places some people may have called home. ■

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**Pictured:** Aerial photograph showing company housing and canneries. Photos courtesy of San Pedro Bay Historical Society and Los Angeles Harbor College

## Appointment of a member of the IAPH Finance and Audit Committee



**On 9 July, the IAPH Board appointed Hitochika Yonezu (above, top), director, port operations department Nagoya Port Authority as a member of the IAPH Finance and Audit Committee.**

This is an internal committee of IAPH mandated to monitor and examine the financial status of the association for its smooth, undisrupted and sustainable operation.

We warmly welcome Hitochika Yonezu onboard.

The chair of the IAPH Finance and Audit Committee remains Gerd Ramdohr (above), head of financial service at Hamburg Port Authority. ■

## Welcome to new members

*We are pleased to welcome as new members of the association:*

### Regular members

Ports Authority Tonga

📍 Tonga

📞 676-23168

✉ alo.maileseni@tongaports.to

🌐 www.portsauthoritytonga.com/

👤 Alo Ki Hakau Maileseni, CEO

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✉ mia.schmidt@cmport.com

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👤 Barbara Agersnap, CEO

Gladstone Ports Corporation

📍 Australia

📞 61 7 4976 1406

✉ dwaneg@gpcl.com.au

🌐 www.gpcl.com.au

👤 Gordon Dwane, ESG Project Lead

### Associate members

Roland Berger GmbH

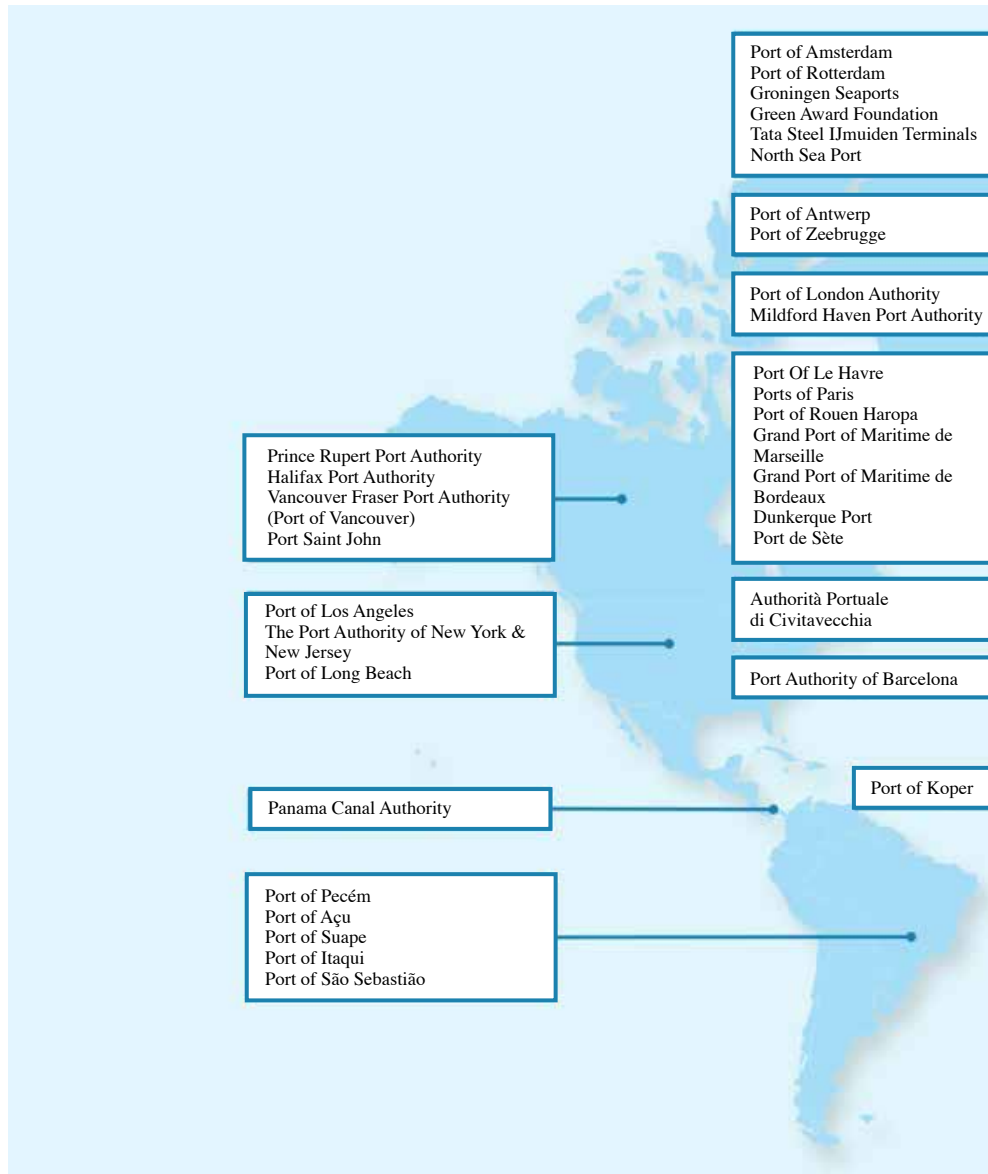
📍 Germany

📞 49 160 7448119

✉ itetiana.voronko@rolandberger.com

🌐 www.rolandberger.com/en/

👤 Philipp Grosche, Partner



# ESI: going from strength to strength

**The Environmental Ship Index (ESI) is the established global standard for ports to incentivise the improvement of shipping's environmental performance, and it continues to grow, with 81 incentive providers across the globe.**

As the map below shows, ESI is used across the globe by ports and other maritime administrations for providing incentives to owners of more than 6,400 ships to perform better in reducing air emissions than required by the current emission standards of the IMO. This includes half of the world's container fleet and a multitude of other vessel types.

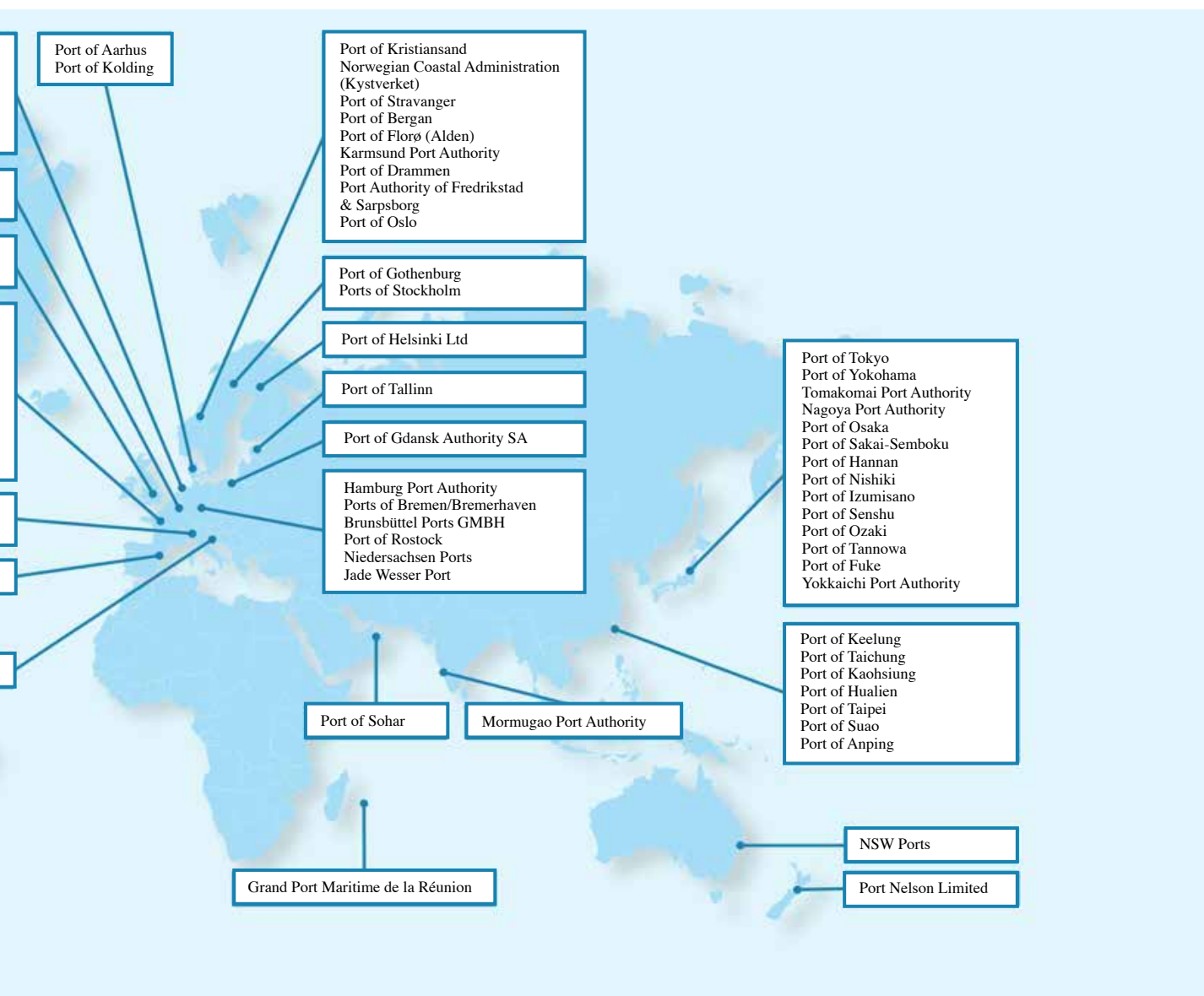
ESI has been recognised by the IMO as the standard basis for port incentives for low- and zero-carbon ships. The index was created by major ports in cooperation with the IAPH and has been fully integrated into the IAPH's governance structure since 2020.

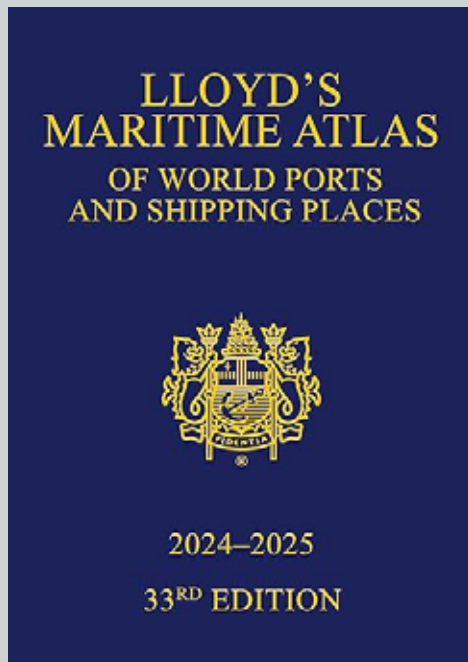
ESI entered a new era earlier this year, with the confirmation of an expanded suite of performance modules to support ports and vessel owners on the journey to decarbonisation and lowering emissions. Coming online in 2026, ESI's revised and expanded offering will take into account a range of

potential emissions, introduce a new GHG methodology, and reward innovation and application of zero-emissions techniques onboard vessels.

The decision to revise and expand ESI's modules and formulae, and the introduction of the new GHG and innovation modules, was as a result of major developments in global maritime environmental regulation, which the scheme encourages ships to exceed.

Learn more at <https://environmentalshipindex.org/>  
Download our special whitepaper on ESI: <https://bit.ly/IAPHESI>





## ABOUT THE PUBLISHER

Lloyd's Maritime Atlas of World Ports and Shipping Places (33rd edition) is published by Informa Law from Routledge 2024. Informa Law from Routledge is an imprint of the Taylor & Francis Group, an Informa business. Ports data supplied by Lloyd's List Intelligence.

# THE REVIEW

## Lloyd's Maritime Atlas of World Ports and Shipping Places (33rd edition)



**T**he captain and the crew will all be happy with this new, updated 33rd edition of Lloyd's Maritime Atlas, which has been published since 1951. A comprehensive reference for locating the world's busiest ports and shipping places, this new edition has been fully updated and enhanced with revised maps and new features.

It's a great read for all map geeks and a real treasure trove of information, with lots of data and well-illustrated graphics to explore or use for reference. That includes precise latitude and longitude co-ordination of more than 9,000 ports and shipping places across the globe, and over 70 full-colour world, ocean and regional maps.

With a long list of admirers already built up over many years, this latest edition does not disappoint. In the 2024-2025 edition all maps and indexes have been updated with

the latest port names and locations. The atlas has also been expanded with almost 200 new ports integrated. It also includes the addition of more than 400 new anchorages, 45 marine terminals, 22 offshore facilities and 85 oil and gas fields.

The atlas also presents a whole host of industry-relevant information and context within its superbly-illustrated maps.

That includes the latest data on piracy incidents applied to a global overview with summaries by region, vessel type and dwt, and featuring three grades of incident symbols to highlight the severity of different hotspots.

The MARPOL map has also been updated for increased clarity.

There is also an updated world map of vaccinations required to protect against major global diseases.

Like previous editions, the atlas is thoroughly indexed. As well as an

alphabetical index, there is a geographical index to find ports and places according to geographic proximity. The index begins with London and follows the coastlines of the world in a spiral, incorporating all islands and ending in Canada.

More than 70 years since its debut, the book continues to be the premier reference guide for shipping professionals worldwide, with essential data such as fleet statistics and the latest marine distance tables, including an expansive double-page world distance table, plus 33 detailed regional tables to aid route planning. In addition, the atlas charts all major canal and river systems, plus main road, rail and airport connections to cater for multi-modal journeys. There is also a global overview of international load line zones.

An essential reference book for all maritime industry professionals. ■



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## REGISTRATION NOW OPEN

Managing risk - building resilience - unlocking opportunities

2024 will be a pivotal year for ports and their communities. Geopolitical instability is on the rise. Physical and digital security is under threat, at sea and on shore.

Shipowners, supply chain providers and cargo owners must adapt rapidly. The energy transition towards low- and zero-carbon fuels must be balanced against national energy security concerns.

#IAPH2024 will offer attendees insights on these topics, revealing how ports – from developing and developed nations – are building secure and sustainable solutions to these shared challenges, in a deeply interconnected world.

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## SAVE THE DATE

As the Association celebrates its seventieth anniversary, IAPH looks forward to welcoming you to Japan and the city of Kobe, where its roots can be found. Following the symbolic idea of establishing world peace through world trade, and world trade through world ports, this 70th annual meeting at the #IAPH2025 World Ports Conference will reunite global port leaders with their counterparts from policy makers, financial institutions, ship and cargo owners, and service providers, delivering a forum for networking, knowledge sharing and debate.

To secure your delegate place or further information on attending/sponsoring contact the events team:

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