

# ports & harbors

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



## Standard bearer

Incoming IAPH president Jens Meier is on a quest to align standards that aid maritime digitalization and decarbonization

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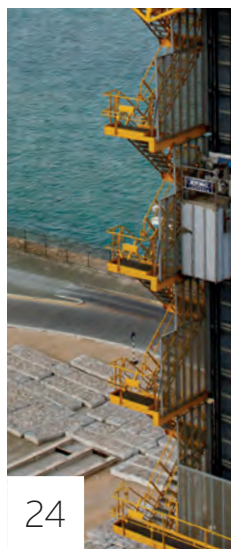
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## EDITOR'S COMMENT



INES NASTALI  
Editor

# Cleaning up

With this last 2023 edition of *Ports & Harbors* going to press, I thought it is time to look back at the past year and the achievements we have made and the issues we face. I am of course not the first to do so. The United Nations Conference on Trade and Development, or UNCTAD as it is better known in

## CONTRIBUTORS



STEPHEN COUSINS  
Freelance journalist

I first became interested in electric vehicles when I saw photos of vivid yellow and turquoise lithium mines in Chile. Lithium is a critical ingredient in electric car batteries and Europe is mobilizing supply chains to source and refine it, alongside other raw materials like cobalt and nickel, to compete with more established operations in Asia as well as keep net-zero emissions targets within reach. As it turns out, ports are a key part of that puzzle... ■



When you have finished with this magazine please recycle it.

maritime circles, published its Review of Maritime Trade while we produced this magazine. One of its findings is a stark reminder of the long way we still have to go to cut emissions from ships and port operations. Those have increased over the past decade, a trend that might be halted with help of the IMO-approved pathway to achieve net zero around 2050, which was agreed by the regulator's Marine Environment Protection Committee this year.

When we look closer at the UNCTAD data, we find an interesting correlation: when the import surge of the pandemic and subsequent backlog in ports slowed down port efficiency and increased waiting times in ports, maritime emissions also spiked.

Especially in the dry bulk and container sectors, this is noticeable. Most affected ports are located in developed countries that, one would assume, have budget to install more, newer, and automated equipment to handle short-term surges. However, this does not seem to be the case.

Second, the data shows us that some ship-owning countries fare better with their fleet than others in terms of emissions. While ships from owners registered in Hong Kong, South Korea, Singapore, Norway and Denmark emitted about the same amount of CO<sub>2</sub> in 2012 and 2022, their fleet numbers show that Norway- and Singapore-owned ships are cleaner than those of Danish, South Korean and Hong Kong shipowners.

In 2012, there was a comparable number of ships owned by German and US companies, but the German ships emitted nearly double as much CO<sub>2</sub> as US ships. Then, in 2022, there were about 1,500 fewer German-owned ships but equally more US-owned ships and emissions stayed

comparable. Look to pages 18-21 where we have compiled some of UNCTAD's findings, enriched with S&P Global Market Intelligence data, to see for yourself.

One might say, emissions will balance out when alternative fuels will be used to propel ships, but the data shows no breakaway from fossil fuels for newbuilds.

However, 2024 will throw an IMO regulation into the mix that aims to make port operations more efficient and thus help to cut emissions: the introduction of digital maritime single windows (MSW). Those are hoped to increase the share of trade data that is handled automatically. The IMO is acutely aware of the different starting positions ports in developing and developed states face to get this off the ground. It has therefore initiated several projects where a port financially contributed to the establishment of an MSW in a developing country.

But keeping the aforementioned data in mind, are ports in developed countries really that far ahead? If one-off import surges heavily stress the system in those, what does this say about their capability to make long-term operational changes? One might remember the IAPH survey into port community systems — a kind of MSW that was supposed to be in place in global ports since 2019. When the IAPH surveyed member ports in 2021, it found that only one-third of ports globally had such systems in place.

The data therefore clearly shows who has some cleaning up to do and calls for ports to finally go online in 2024. ■

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**VLADISLAV VOROTNIKOV**  
Freelance journalist

My article features comments by John Steed, a retired British colonel and hostage hunter who is known for his participation in several rescue missions in the region.

Unbelievable they happened in real life and not in an action-packed novel. I hope that new investments, like those into port infrastructure, will bring stability and a certain level of prosperity to the long-suffering Cape of Horn, and that hostage rescue missions will never be required there again. ■



**GORDON FELLER**  
Freelance journalist

What I found most surprising while researching the article about the new transcontinental trade corridors is the fact that humans have, almost since the beginning, been busy creating and using such routes for their commerce and exchange of goods and ideas (and slaves). This really does go back a long way, deep into human history. ■

IN CONVERSATION WITH JENS MEIER

# Aligning values

Ahead of the start of his term, the newly elected IAPH president Jens Meier, CEO of the Hamburg Port Authority, talked to the IAPH's Patrick Verhoeven about his wish for the association to help align standards in maritime digitalization and decarbonization

INES NASTALI



he IAPH World Ports Conference in Abu Dhabi saw discussions on industry challenges such as the energy transition, supply chain resilience, as well as digitalizing port operations.

It also saw the confirmation of Jens Meier as next president of the IAPH.

Jens has been the CEO of the Hamburg Port Authority (HPA) since April 2008. He also serves as the chairman of the port's executive board and has been the vice president for the IAPH Europe region since 2019. He also was interim vice president for the Africa region between 2021 and 2022.

For his two-year presidency term, he has ambitious plans. First off, he wants to keep the IAPH family together, independent of how big or small a port is. "I envision my presidency as a period defined by a resolute commitment to empowering port authorities and ensuring their influential voice continues to shape our sector," he said to *P&H* during a visit to the HPA offices in Hamburg.

Together with Patrick Verhoeven, the IAPH's managing director, he talked through his priorities of ensuring a sustainable, secure and interconnected port community that is aligned with the changing needs of the future.

"The global business landscape is evolving rapidly, and the IAPH, as the foremost representative body for port authorities, stands as a pivotal forum for fostering collective efforts," Jens said.

He calls for collaboration without the element of competition, fostering synergies including between beneficial cargo owners and industry bodies such as the IMO, and transparent leadership of the association with robust communication channels.







## “It is imperative for ports to proactively engage in decarbonizing the industry”

JENS MEIER, CEO, Hamburg Port Authority

### All together

With these priorities and principles in place, Jens hopes to have the necessary tools at hand to help tackle the challenges the maritime and port industries are facing.

One being the difficult geopolitical situation with tensions and wars in Ukraine and the Middle East, as well as the manufacturing supply chain moving westwards. All these impact global trade routes, shipping lanes and port activities. “Geopolitical tensions necessitate ports’ adaptation to changing trade patterns, and the IAPH can facilitate resilience through discussions and strategies,” Jens said.

He is therefore also interested in bringing more of the Chinese ports into the IAPH. “Global trade includes Chinese ports,” he said. “For global representation, we need China,” Patrick agreed, acknowledging that “We have lost contact with the Chinese port community a little since the pandemic but we should make it a priority to bring them back to the table.”

In contrast, the IAPH has been able to strengthen collaboration with ports in North and South America over the past few years. Jens is in addition happy to see Australian ports involved in the association’s work, for example during the World Ports Conference in Abu Dhabi.

Patrick also looks to Africa as a potential area to strengthen cooperation with and to work on the energy transition. “Those regions have great potential to become Clean Energy Marine [CEM] Hubs,” he said.

“This is not only a matter of environmental concern but also a means to secure energy supply in light of geopolitical changes,” Jens added.

### The decarbonization challenge

For him, ports must adapt. “The IAPH plays a key role in promoting sustainability and energy transition through

initiatives like the Harbor Café, focusing on energy transition, and advocating for alignment among incentive providers for a greater impact in decarbonizing the industry.”

Here, Jens voices concern. “We have to make sure that the revised IMO GHG strategy, which was adopted last summer, will be effectively implemented. It therefore becomes imperative for ports to proactively engage in the process of decarbonizing the industry,” he said.

This also includes continued collaboration with the UN regulator and its incoming secretary-general Arsenio Dominguez who takes over the reins of the IMO in 2024.

The Environmental Shipping Index (ESI) is one such tool that the IAPH developed in the race to net zero. It incentivizes environmentally friendly vessel practices and will soon be upgraded to feature an ESI@Berth model to record emissions from cruise ships during their port stay.

“Consequently, I am advocating for greater alignment among existing incentive providers to avoid redundant efforts and maximize our collective impact,” Jens said.

For his own port in Hamburg, which makes up 14% of the total city’s footprint and is Germany’s biggest industrial area, Jens envisions a smarter, quieter and cleaner port, too. In 2030, instead of fumes, he wants to be able to smell spices being handled in the port and instead of screeching container handling equipment, hear sea gulls.

### Going digital

Decarbonization is not the only challenge that could be helped by multiple unconnected efforts with the same goal joining forces. “The maritime industry lacks standardized data collaboration practices, despite significant efforts by various institutions. Inconsistent data formats, protocols and communication methods can hinder efficient data collaboration among port authorities, shipping companies, terminal operators, beneficial cargo owners and other stakeholders,” Jens said.

With his background in computer science, and a supplementary study in economics, his focus for a port’s advancement has always been on digitalizing its operational environment. Initiating autonomous trucks in the port area, supporting the development of robots that clean and inspect port infrastructure or his work with the IAPH on chainPORT are testament to this.

With the IAPH on board, chainPORT, a partnership between a number of ports that aims to establish an interconnected, digital port-ecosystem, reaches even more port authorities from around the globe.

The collaborative project with the association aims to develop a common understanding of critical components





within the port's digital infrastructure that fosters the harmonization of data throughout the maritime supply chain.

This is aimed to develop a resilient supply chain and cater to the needs of beneficial cargo owners who demand greater visibility into their shipments, also from a sustainability perspective.

"In close collaboration with our strategic partners, we are actively taking measures to bolster port resilience and optimize supply chain operations. These efforts have gained even greater urgency, given the intricate landscape of geopolitics and the growing complexities in the realm of cybersecurity. Ports, being critical components of our global infrastructure, are subject to a unique set of pressures and vulnerabilities. Our primary objective is to fortify their resilience and ensure the uninterrupted flow of global trade," Jens said during the most recent chainPORT meeting.

The topic of cybersecurity will also play into another IMO regulation set to come into force next year. From January 2024 on, ports around the world are tasked with providing a single maritime window that allows for the digital exchange of trade data.

"If the IMO wants single windows, then we need to make sure that those are secure. However, some continents struggle with security protocols," Jens warned.

The IMO's Heike Deggim, responsible for maritime safety at the IMO, confirmed to *P&H* that it is a challenge to implement maritime single windows in developing countries, for example. The regulator therefore promotes collaboration between ports and has set up several initiatives where ports financially contribute to setting up systems in other countries.

On the IAPH side, the association's Data Collaboration Committee has been working with the IMO on a symposium around the maritime single window as well as submissions to the IMO Facilitation and Maritime Safety Committees. "All of these efforts show that the association is on the right way," Patrick said.

For him, in the spirit of alignment and standardization, managing the interaction between the Data Collaboration and the other two technical committees on Risk and Resilience and Climate and Energy will be a focus area for the new year. "Once the brain work has been done, we need to go one step further and standardize," he said.

This also includes recent work the association has done with other port-centric groups such as the World Ports

## "Ports want a clear roadmap"

PATRICK VERHOEVEN,  
IAPH

Climate Action Program, with which the IAPH has been working on a port readiness tool for low- and zero-carbon fuels.

"Ports want a clear roadmap as they need to fund new infrastructure, such as to cater to alternative fuels but also to install low-carbon port-handling equipment, and need to make business cases for these projects," Patrick said.

### Moving on

All these topics and projects were discussed at this year's World Ports Conference in Abu Dhabi. For Jens, the further development of the CEM Hubs, the facilitating role of port authorities in the decarbonization of shipping, such as through the port readiness tool, as well as cybersecurity and security in general, illegal trafficking and organized crime, were of utmost importance.

With this year's edition being done and dusted, Jens looks ahead at what will be one of the highlights of his presidency: HPA will be the host sponsor of the 2024 World Ports Conference in October next year, seeing the port invite port and supply chain executives to the German maritime capital.

"We want to show solutions, not slides," he said jokingly. One of those solutions will be the onshore power supply in the port, a project of pride for the HPA chief.

"The flexible cable management that we have installed gives us an advantage and the flexibility we need to cater to different vessel sizes and types," he said.

Otherwise, the focus of the IAPH Conference 2024 in Hamburg will be to jointly expand the path into the future, which has already been successfully started, the new IAPH president added.

"All of us have to use limited resources effectively and economically to preserve them for future generations. Particularly in the maritime environment, a permanent leverage of effective transport chains with sustainable solutions is essential," he said.

Consequently, "this can only be achieved if all participants along the supply chain work together to solve their common challenges".

In 2024, "we will therefore present examples and projects in the field of digitalization and renewable energies that show that we and our partners are already on a good path to the future and that we will continue to develop these paths together," Jens said, not only giving an outlook to the 2024 IAPH World Ports Conference, but also sharing another insight into how he sees his turn to serve as president of the association pan out. ■



PERSPECTIVE AUTOMATING OPERATIONS

# Time for joint thinking on ship and port automation

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**A**s an international organization that has supported the implementation of maritime autonomous surface ships (MASS) since 2016, One Sea is at the heart of discussions around this topic. Responses to MASS tend to be strong, with one side championing the benefits and the other expressing concern and a lack of confidence in such technologies.

However, MASS will not appear unexpectedly to replace crewed vessels. For a future shipping industry featuring high levels of automation and autonomy, any preparatory work should consider that for the foreseeable future, ships with varying degrees of autonomy will coexist.

Ports will therefore need to consider having the capacity to receive both highly advanced, self-navigating vessels alongside conventional ships.

## Harnessing technology

According to UN statistics, 4.5 million port calls took place in 2022, and each of these port visits represented an important action, an exchange of goods, passengers and data. However, ever-increasing growth in international trading is driving the need to harness technology to improve the efficiency of shipping. Conventional methods no longer provide the necessary gains and in some cases, doing more of the same simply leads to inefficiencies, delays and environmental issues.

By embracing automation technologies and ensuring a synchronized evolution both at sea and ashore, we can unlock a world of endless possibilities. The simultaneous development of autonomous technology for ships and ports could be game-changing for several reasons.

Firstly, simultaneous development should – by itself – enhance efficiency and productivity. Traditionally, the shipping industry has struggled with optimizing port calls and reducing turnaround times. However, by improving communication and coordination between ships and ports and enabling real-time information sharing, berthing, cargo operations and other activities can be optimized. This would help to minimize idle time, ensure faster turnarounds, and maximize productivity. In addition, the positive impact will not be limited to ships and ports only but has the potential to benefit the entire transport chain. The second reason relates to safety and security, which are critical in the supply chain. We can already see how automation technologies can improve the safety of navigation by enhancing situational awareness on board ships and by supporting



## ABOUT THE AUTHOR

**SINIKKA HARTONEN** is the secretary general of One Sea. Before her appointment in October 2022, she was the head of environment and technology at the Finnish Shipowners' Association.

crew with completing tasks that would previously have required a high level of human attention. For example, where large amounts of data is required. This allows crew to focus on other tasks, and many ships have in fact been utilizing automation technologies for many years. On the port side, automated cranes, cargo-handling systems and surveillance solutions can also significantly reduce human errors and mitigate operational risks.

However, collaboration among industry stakeholders is the key to ensuring a holistic approach to safety. As we embrace new technologies in ships and ports, the industry must cooperate to ensure that the benefits and strengths afforded by such technologies can be maintained and continue to improve maritime safety.

We are starting to see an increase in active collaboration between sea and shore side, and while this is very encouraging, there is always room to do more.

Next, the simultaneous development of automation for ships and ports could play a significant role in moving toward greener and more sustainable shipping. A harmonized and well-orchestrated development between the sea and shore side will enable

optimized operations that not only lower operational costs for companies, but reduce the carbon footprint of maritime operations.

There are some excellent examples of this happening in major ports such as Rotterdam and Los Angeles. They are using technologies to optimize port operations in addition to using technology to synchronize activity across the transport chain. There are also similar developments taking place on a

smaller scale, such as in the fjords of Norway.

Finally, collaboration is a proven source of innovation with different parties contributing separate areas of expertise. The exchange of ideas, learning and the pooling of resources can drive industries forward, create

new business opportunities for the maritime industry that prove transformative.

To realize these benefits, effective cooperation is essential. This will require a seamless exchange of data and full utilization of automation across the transport chain.

Additionally, to ensure that such developments move forward and that visions become commercially viable solutions, global regulations need to be put in place without any unnecessary delay to define adequate requirements for equipment and solutions.

**“Collaboration is the key to ensure a holistic approach to safety”**

**SINIKKA HARTONEN**  
Secretary general, One Sea

### The dual-capability port

While simultaneous development is the best route forward, providing the infrastructure and services to support a broad spectrum of autonomy is undoubtedly a challenge. However, ports equipped only to receive traditionally-operated vessels will miss the economic and environmental benefits of automation and fall behind, while those that fully commit to automation too soon will limit themselves to serving a market segment that remains in its infancy. For now, becoming a dual-capability port by providing automated docking capabilities alongside traditional means of mooring for less advanced vessels, is the most pragmatic course of action. Several ports worldwide are already working toward this target, and it will only be a matter of time before this becomes more widespread as investments in new technology and digital solutions continue.

Ultimately, by providing dual capability to support conventionally operated, as well as unmanned ships, ports can ensure they are ready to reap the rewards of autonomous vessels and automation when the technology becomes more prevalent without limiting their market share in the meantime.

However, to really succeed, we must move beyond the buzzwords and focus on creating genuine and concrete results; as with other areas of shipping, results will be the true measure of success. ■

FEATURE BATTERY PRODUCTION

# Powering up

Europe is ramping up electric vehicle battery production to compete with mainland China and ports are emerging as strategic locations for gigafactories, refineries for key ingredients, and cell recycling facilities

STEPHEN COUSINS

E

lectric vehicles are a key vector in the fight against climate change, and as policymakers ramp up emissions reduction targets, the global market is experiencing exponential growth.

According to International Energy Agency estimates, electric cars will account for 18% of new cars sold worldwide in 2023 and, by 2030, they could make up an impressive 65% of total sales if net-zero targets are to be kept within reach.

The European Energy Agency found that the carbon emissions of an electric car are around 17%-30% lower than driving a petrol or diesel car, with numbers improving with a low-carbon manufacturing chain.

In this regard, the EU has ambitious plans for EVs and wants to phase out sales of new petrol- and diesel-powered cars by 2035.

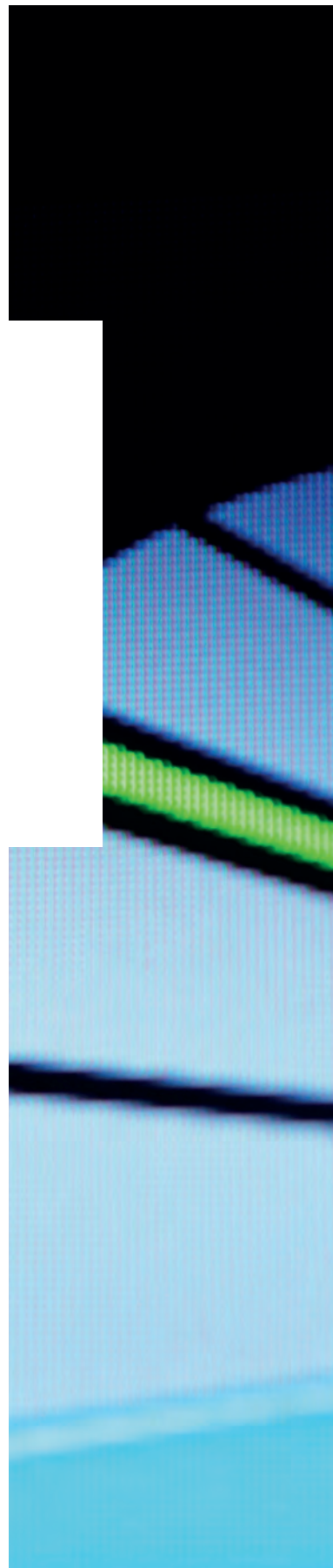
Satisfying this huge demand requires millions of lithium-ion (Li-ion) batteries and a global arms race is therefore underway to build giant battery plants, known as gigafactories, which support the transition to electric power.

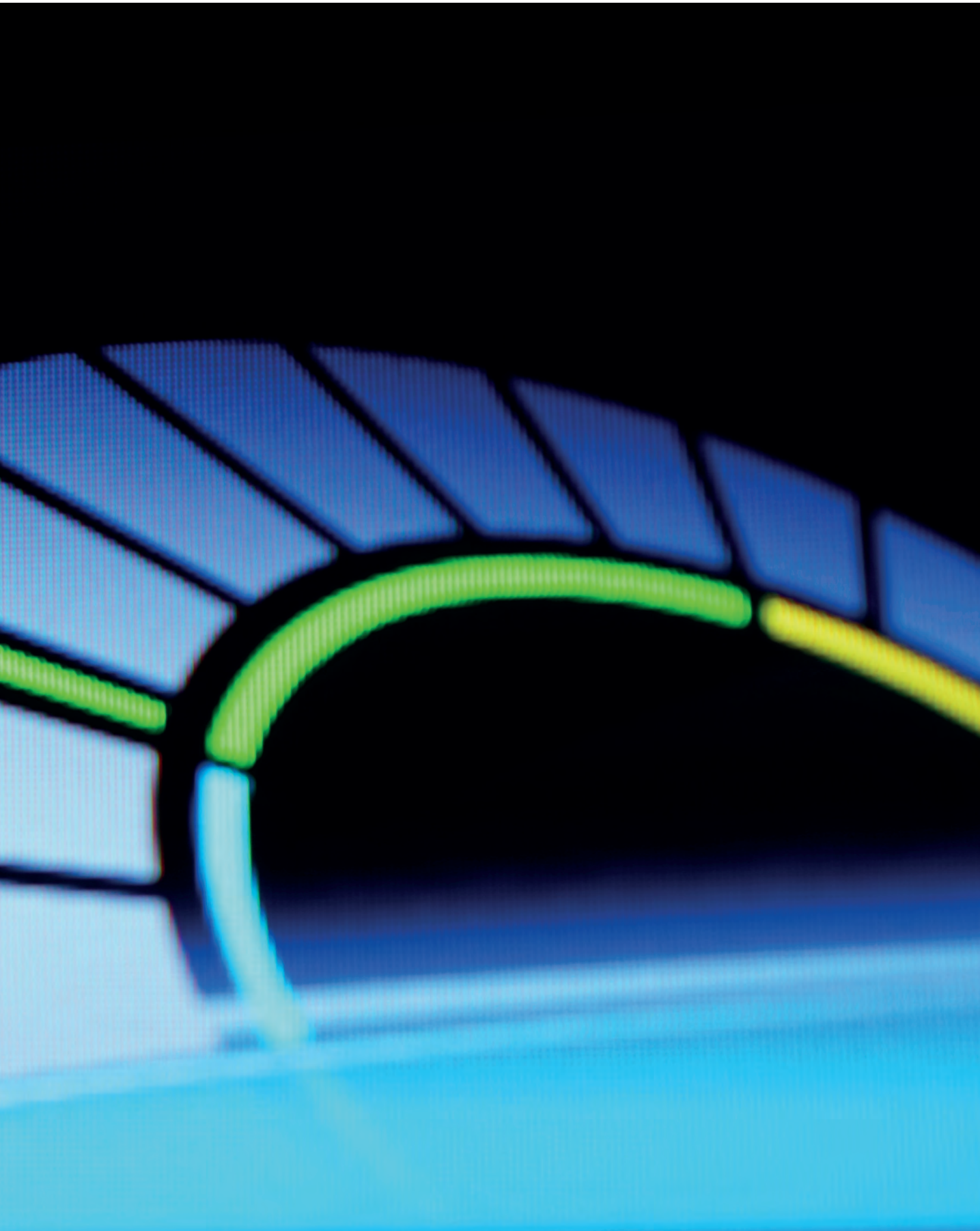
However, Europe has been slow to invest in battery production capacity and is playing a game of frantic catchup with the likes of mainland China, Japan and South Korea, which have been investing in the sector for years.

## New horizons

Mainland China has a stark lead in the market and is expected to produce 76 % of global Li-ion battery cells this year, compared with just 7 % in the EU, according to Benchmark Mineral Intelligence.

Seeking to redress the balance and capture a market forecast to be worth \$264 billion annually by 2025, the bloc launched the European Battery Alliance back in 2017.





FEATURE BATTERY PRODUCTION

Photo: Getty Images/ry Madood





Above: Lithium ore moves along a conveyor at a site in Greenbushes, Australia. Photo: Getty Images/Bloomberg Creative Photos

This cohort of national authorities, organizations and industry stakeholders is trying to establish a complete domestic battery value chain for EV battery production, including securing supplies of key raw materials, such as lithium, nickel and graphite.

Lithium refining is therefore urgently required to meet the forecast demand of up to 800,000 metric tons per annum in Europe by 2030. The pipeline now includes more than 160 industrial projects and 30 gigafactories, with investment in 2022 alone of more than \$190 billion.

Indeed, the EV market needs an entire ecosystem of mines, refineries and chemical engineering facilities to come onstream to create a viable market.

European companies making inroads into the industry include Northvolt AB, cofounded by two former Tesla Inc. executives, which opened Europe's first gigafactory in northern Sweden. Car makers Mercedes-Benz Group AG and BMW Group have set up energy-efficient gigafactories in Germany, and Norwegian energy company Freyr Battery Norway AS is planning a gigafactory fueled by wind and hydro energy in Mo i Rana, a remote coastal town.

EU ports are already an important part of the emerging supply chain for EV batteries, needed to both house battery manufacturing plants and raw materials refinery facilities and support the flow of trade. A 10,000-square meter Li-ion battery recycling facility, needed to process waste batteries and battery production scrap to ensure the industry maximizes its low-carbon potential, opened at the Port of Rotterdam. Meanwhile, a gigafactory due to launch in Dunkirk, France, later in 2023 will take advantage of the port's maritime connections and provide a significant boost to local trade and employment.

Spearheading change, Green Lithium's \$635 million new refinery at Teesport in the UK will open in 2025 and produce enough lithium hydroxide for 1 million EVs a

year. According to Green Lithium, that represents 6% of total downstream demand in Europe in 2030, making it a significant contributor toward meeting EU goals.

### Green push

One strategic goal of the new plant to compete with Chinese lithium refineries, which are large emitters of CO<sub>2</sub>, is therefore to achieve a low-carbon footprint. Green Lithium's plant will manufacture a product with around 80% fewer emissions – down to 3.3 kg of CO<sub>2</sub>/kg of lithium. A quarter of those savings will come from the reduced heat alkali leech production process and half from taking advantage of Teesside's low-carbon and renewables industry.

Sean Sargent, CEO of Green Lithium said to *P&H*, "We really needed to select a site that had access to an emerging landscape around hydrogen to replace natural gas in the process. We needed access to carbon capture to take away the residual emissions. The biggest energy demand comes from electricity, so we needed access to renewable energy sources. Teesside gives us all of that, they've enabled that decarbonization."

In addition, EU battery regulations were updated in June 2023 to regulate the entire life cycle of batteries, from production to reuse and recycling, to ensure they are sustainable, safe and competitive.

They require that EV batteries have an identified carbon footprint, and a plan to reduce it. Batteries must be designed to be repurposed, remanufactured or recycled at the end of their life, including mandatory minimum levels of recycled content. The measures are not only a boost for European sustainability, but they will also enhance local manufacturing capability by upending car makers' reliance on imports from Asia.

The facility for recycling EV batteries now live at the Port of Rotterdam, one of three operated by TES Sustainable Battery Solutions GmbH in Europe, is set to become the largest in Europe. The facility's opening aligns with the port's wider strategy to become net zero by 2050 and to establish circular production processes including recycling hubs for plastics, batteries and building materials.

Strategically located adjacent to the Elbeweg waterway, the 10,000-square meter facility includes a 2,000-square meter building and TES has an option to extend onto a neighboring plot, which would increase the site to over 40,000 square meter.

According to Nivar Fuchs, managing director of operations at TES, new EV batteries last many years, so recycling is currently focused on waste from production or damaged cells. “It’s a new market and there are lots of changes around the chemistry of batteries and production methods, which means there is a lot of fallout in production,” said Fuchs. “There is a huge percentage of scrap coming out of battery factories and simply not enough recycling capacity to handle it all.”

Furthermore, with battery regulations requiring a higher percentage of reused material in new batteries, more recycling is needed to ensure those standards are met.

As a result, TES is eyeing future sites in Germany, Spain, or Portugal, as well as the United Kingdom to expand its output.

Fuchs said Rotterdam, and similar large ports, are an ideal location for recycling operations because they have the infrastructure to accommodate trucks – marine access is less relevant – and house a lot of the chemicals industry, which understands how to handle hazardous waste.

“Some streams of waste product coming from our processes have to be dealt with externally, and those kinds of facilities are already in the neighborhoods, which is helpful,” said Fuchs.

“There is simply not enough recycling capacity to handle it all”

**NIVAR FUCHS**  
Director of Operations, TES

### Port drivers

The strategic port location was also a key factor in the selection of Verkor’s new site for a low carbon gigafactory in Dunkirk, France. Located on an 80-hectare plot in the major industries area of the port, the plant will supply enough batteries to equip 300,000 EVs a year and begins production in 2025.

According to the startup’s cofounder Olivier Dufour the initial specification required a location with optimal logistical connections, rail networks and proximity to highways. In addition, it needed sufficient electrical power and a job pool large enough to hire a large, qualified workforce. At full capacity in 2030 the plant will have a potential 2,000 direct jobs and 5,000 indirect jobs.

Verkor is forming a battery-making cluster in Northern France and Dunkirk gives it “new opportunities with maritime access and an independent site with very large areas that will allow the gigafactory to expand and thus reach, and potentially exceed, the target of 50 GWh of production in 2030,” said Dufour in a recent release.

With the uptake of EVs key to making net-zero emissions a global reality and preventing climate breakdown, ports have not only economic and environmental incentives to engage in battery making, but there is also an ethical dimension to preserving the planet for future generations. ■

## How to prevent EV battery fires

**Recent shipping incidents have** highlighted the fire risks of Li-ion batteries. Captain Rahul Khanna, global head of marine risk consulting at Allianz Commercial explains the dangers and how they should be managed.

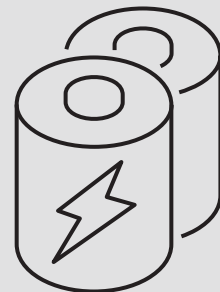
Li-ion batteries transported in containers or as part of EVs are potentially hazardous and combustible, especially if the batteries are used, defective or damaged, or improperly stored, packaged, or handled.

The main hazards are fire, explosion, and thermal runaway, a rapid self-heating fire that can cause an explosion. Fires can burn more ferociously, are very difficult to extinguish, and are capable of spontaneously reigniting hours, or even days, after they have been put out.

Most ships lack suitable fire protection, firefighting capabilities and detection systems to tackle such fires at sea, which has been exacerbated by the dramatic increase in ship size.

Attention should focus on preemptive measures. Shipping lines and shippers should ensure Li-ion batteries have a safe state of charge level of 30%-50%. Shippers should request proper certification, such as test summaries from manufacturers, before transportation, as defective manufacturing is a leading cause of fires.

Other measures to consider include ensuring that staff or crew receive adequate training and access to appropriate firefighting equipment, and improving early detection systems, hazard control, and emergency plans. ■



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Market Intelligence

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**G**lobal decarbonization is one of the most pressing and important challenges that the world faces at present and, in the United Kingdom, Teesside is at the heart of our capacity to meet this challenge.

A number of significant projects have been mooted – including carbon capture and storage, the manufacture of hydrogen fuel and developing our offshore wind capacity – with an eye to making use of the region's impressive industrial landbanks, its deep river, and interconnectivity between its north and south banks.

PD Ports Ltd. sits geographically central to much of the low carbon activity proposed and planned around Teesside and we are keen to use our strengths and capabilities to support projects that could boost Teesside's aims to lead the new green industrial revolution. Our deepwater berths at Teesport and anticipated connectivity to clean-energy infrastructure make us an attractive partner for prospective industries and developers.

We also have capacity in our own estate to act as a host for third parties looking for suitable sites to base operations.

One such company, Green Lithium Refining Ltd., came to us with proposals to build the UK's first large-scale lithium refinery, which will supply battery-grade lithium – produced in a sustainable and low-carbon way – for the European and UK market. The energy transition will place a huge global demand for new lithium-ion batteries; both in the storage of renewable power and in the electrification of transport.

However, if the various battery metals are produced as they are today – with high carbon footprints – then much of the benefit of electric vehicles is offset before the first mile is driven.

Global capacity is also a key issue that are faced by many of the current refineries based in mainland China, which is already seeing its domestic demands rise sharply.

Green Lithium selected our Teesport site because we can already provide a deepwater bulk handling berth for importing raw materials from mines across the world and a container terminal that will facilitate export of its product.

Teesside has an historic pedigree in steel making and process industries, which are a clear fit for the process engineering required to refine lithium, meaning the human capital available in the surrounding region is exceptional.

With PD Ports also pursuing our own decarbonization program, with a stated aim to achieve carbon neutrality at our land-based Teesside operations by 2027, Green Lithium identified us as a business complementary to its own, a culturally aligned partner, and landlord.

There remain a number of steps in the process before Green Lithium can start construction, but a site identified on PD Ports' estate within Teesport won outline planning permission for a refinery earlier this summer.

If the project does go ahead as planned, it is estimated that 1,000 jobs could be created in the construction phase, with 250 specialists, high-quality jobs required at the refinery. National policy on the green revolution and energy transition is centered around the Tees and it is imperative – both for the push for decarbonization to be successful and for the future prosperity of our region – that the project is a success.

As Teesside's largest private employer, and in our role as Statutory Harbour Authority for the ports of Tees and Hartlepool, PD Ports has its own part to play.

We are committed to influencing and supporting the national drive to meet the global decarbonization challenge, ensuring the focus remains on Teesside as a central hub for growth and development of green technologies, and helping individual businesses unlock their potential. ■



**JERRY HOPKINSON**  
Executive chairman, PD Ports

## Wake-up call

The decarbonization of the maritime transport chain can offer business opportunities to ports.  
UK's PD Ports lays out how it works with industry and manufacturing on this





Elisabeth Cosmatos

With more than 25 years of experience in project cargo handling, Elisabeth Cosmatos looks at the sector's current state as well as collaborating with ports

INES NASTALI

In June, Cosmatos Group managing director Elisabeth Cosmatos was elected the president of The Heavy Lift Group, an international association for specialized heavy-transport companies. She is the first woman to hold this position and has been part of the executive committee for more than six years. Cosmatos brings to the role as group president more than 25 years of experience in shipping, forwarding, and logistics.

These 25 years, Cosmatos has spent working for the family business.

In its 50th year, the Thessaloniki-based Cosmatos Group today consists of four sister companies — Cosmatos Shipping Services SA, Fairplay Forwarding SA, Hub Logistics SA, as well as Vigor Trading SA, its commodity wholesalers branch.

With a background in maritime business and law, and international trade and transport, Cosmatos counts her participation in founding third-party logistics facility Hub Logistics as a personal milestone.

For this, she oversaw its development from scratch into a bonded storage operation that is fully covered by dangerous goods permits. In addition, it holds an authorized economic operator certification to handle customs for clients.

The Greek national has led numerous multimodal project cargo and heavy-lift transports in a number of sectors during those past two decades.

They range from oil and gas and renewable energy, to yachting, military operations, marine equipment, and port and terminals.

### Back to the beginnings

Cosmatos remembers her first project cargo task as a good experience to gain expertise but not as a happy one.

"In 1998, we transported war machinery during the Kosovo war, which included sleeping in war camps, fresh after university," she said to *P&H* on the sidelines of a busy London International Shipping Week in September.

"This included vehicles, tanks, and platforms," she added.

From this defining moment in her career, she moved on to coordinate the transport of generators, transformer, windmills, blades, as well as refinery and power plant equipment.

She sees the strength of her company in the full-service package it offers, from the factory to the end destination, delivered over land and sea routes, from European and Asian manufacturing sites into Greek destinations and vice versa.

Even more so than merchant shipping services, project cargo relies on timely delivery owing to the chain of operations that continues on land.

Hence, Cosmatos is proud of the network of partners she and her team have spun over the past decades.

"When a delay occurs that will impact the whole transport, I prefer to use contractors who I know and trust," she said.

### Working together

With demand being back to pre-COVID-19 times, she appreciates the collaboration with ports and is always happy to see new equipment, such as more cranes and other infrastructure, that helps to handle heavy-lift cargo installed in ports.

Access to good project equipment is especially important as there is no specialized infrastructure in ports for breakbulk. Therefore, what Cosmatos needs for a project is subcontracted, from the vessels, trailers, and lifts to other equipment.

"There is always room for improvement," she said. Two things come to mind. "We rely on the port's choice of stevedores and if we don't have enough manpower, we might be delayed," she lists one of her recent concerns.

Second, "what we are lacking are drafts in port," Cosmatos said. She would like to see drafts of 11 meters, which sometimes is a struggle in the predominantly Greek ports that her company operates in.

That said, the challenges she faces are being recognized by project cargo managers from around the world as she knows from her work with The Heavy Lift Group.

The specialized nature of her sector calls for creativity and accuracy. "You need to make sure you know the exact dimensions of your cargo and forecast what could go wrong, so you can avoid problems," she said.

For the stevedores, she therefore sometimes translates instructions to ensure the expensive equipment they will handle gets hooked up exactly as the manufacturer demands it and thus, does not get damaged in the process.

One of the company's recent projects this summer – a carryover from the pandemic – was the delivery of a hydrogen plant from the Port of Thessaloniki to the UK. This project was first planned in 2019 with execution envisioned for 2021 but COVID-19 restrictions prevented this.

The project included 963 metric tons of cargo with some having to be moved through Thessaloniki city center and onward to the port.

There, the cargo was loaded onboard Ocean7's heavy-lift vessel *Atlantic Dawn*,

destined for a hydrogen plant designed by Technip Energies NV at Esso Petroleum Co. Ltd.'s refinery in Fawley, UK.

"At the outset, it was clear that this project was going to create unique challenges, simply given the dimensions of the critical loads."

Additionally, there

were roadworks taking place on the route, which included the installation of a new bridge, and those were outside of Cosmatos's control.

"We hold toolbox meetings with all people involved in the operations before we get started," she said. Ports, clearly having recognized the importance of breakbulk operations as a business opportunity, are also involved in those.

For her, doing the homework helps to keep prices competitive and customers happy. For the company, this also means a reduced risk of liability and of its insurance cover, ensuring the company can look ahead to at least another 50 years of transporting heavy-duty cargo. ■

"We rely on the port's choice of stevedores and if we don't have enough manpower, we might be delayed"

# A year in review

This excerpt shows some of the trends the UNCTAD Review of Maritime Transport revealed

## REVIEW OF MARITIME TRANSPORT 2023, UNCTAD

**S**hipping continues to navigate COVID-19 post-COVID-19 trends, the legacies of the 2021-22 crunch in global supply chains, a softening in the container shipping market, and shifts in shipping and trading patterns arising from the war in Ukraine.

Maritime trade volume contracted marginally by 0.4% in 2022, but UNCTAD projects, it will grow by 2.4% in 2023. Indeed, the industry remains resilient and UNCTAD expects continued but moderated growth in maritime trade volume during 2024-28. During 2022, containerized trade, measured in metric tons, declined by 3.7%. UNCTAD projects it will increase by 1.2% in 2023 and expand by more than 3% in 2024-28, although this rate is below the long-term growth of about 7% of the previous three decades. On the supply side, container shipping may have entered an overcapacity phase, meaning that carriers will aim at managing capacity using tools such as slippage, idling of vessels or demolition.

Global shipping continues to confront multiple challenges, including heightened trade policy and geopolitical tensions and is dealing with changes in globalization patterns. Additionally, shipping must transition to a more sustainable future, decarbonize and embrace digitalization.

### Emission debacle

A key development toward maritime decarbonization was initiated in July 2023 when the IMO Marine Environment Protection Committee adopted the revised greenhouse gas-reduction strategy and the GHG reduction plans moved closer to finalization. This is urgently necessary as data by UNCTAD and Marine Benchmark shows that emissions from shipping have increased for major ship-owning countries, as well as by the major ship types, tankers, bulk and container ships.

Here it is of note that while there are somewhat comparable numbers of tankers and bulk carriers in service, container ships make up 15% of the global fleet but are not far behind the first two types in terms of CO<sub>2</sub> emitted, making them less energy efficient than tankers and bulk carriers.

It will be important to assess the carbon footprint of the global fleet while considering the roles of the country of the flag and the country of ownership and the implications of their decisions regarding carbon-emissions monitoring,

## Carbon dioxide emissions by region of vessel ownership in metric tons (2012 and 2022)

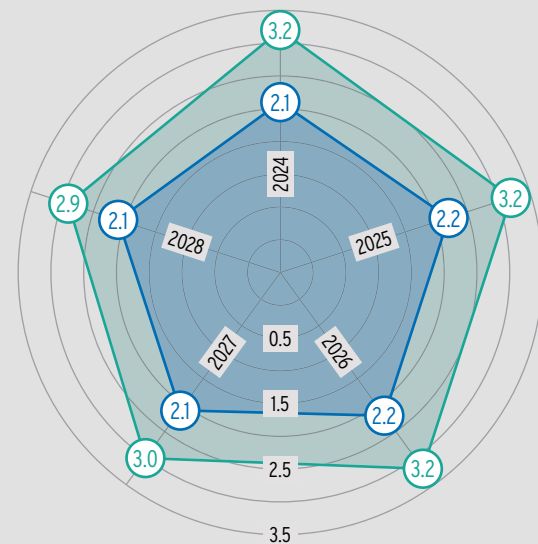
● Total number in year 2012 and 2022

Note: Carbon dioxide emissions from vessels' main and auxiliary engines, calculated based on bunker fuel from AIS

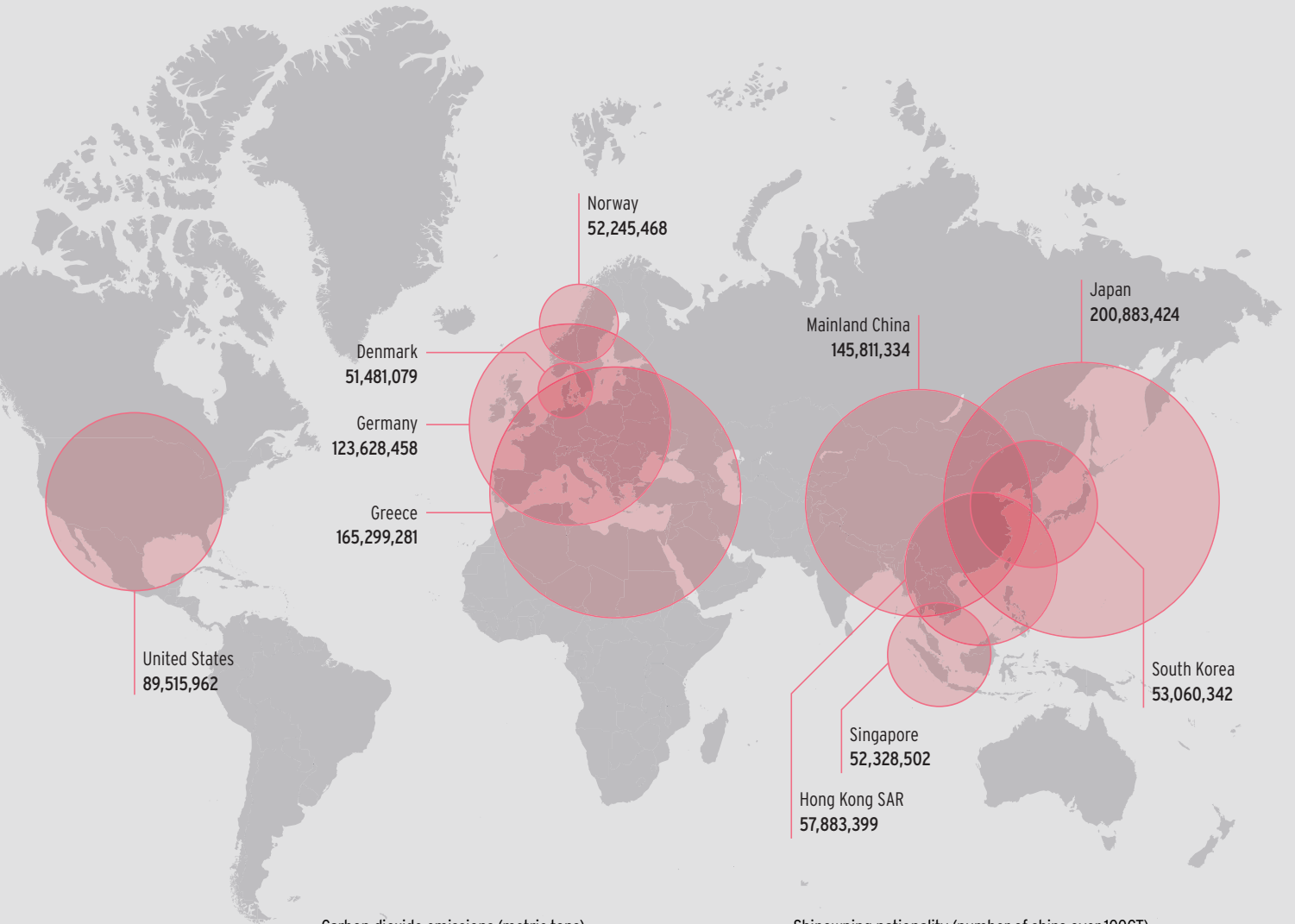
Source: UNCTAD, based on data provided by Marine Benchmark, June 2023

## Seaborne trade forecast as annual percentage change (2024-2028)

■ Total seaborne trade ■ Containerized trade



Source: UNCTAD secretariat calculations, July 2023

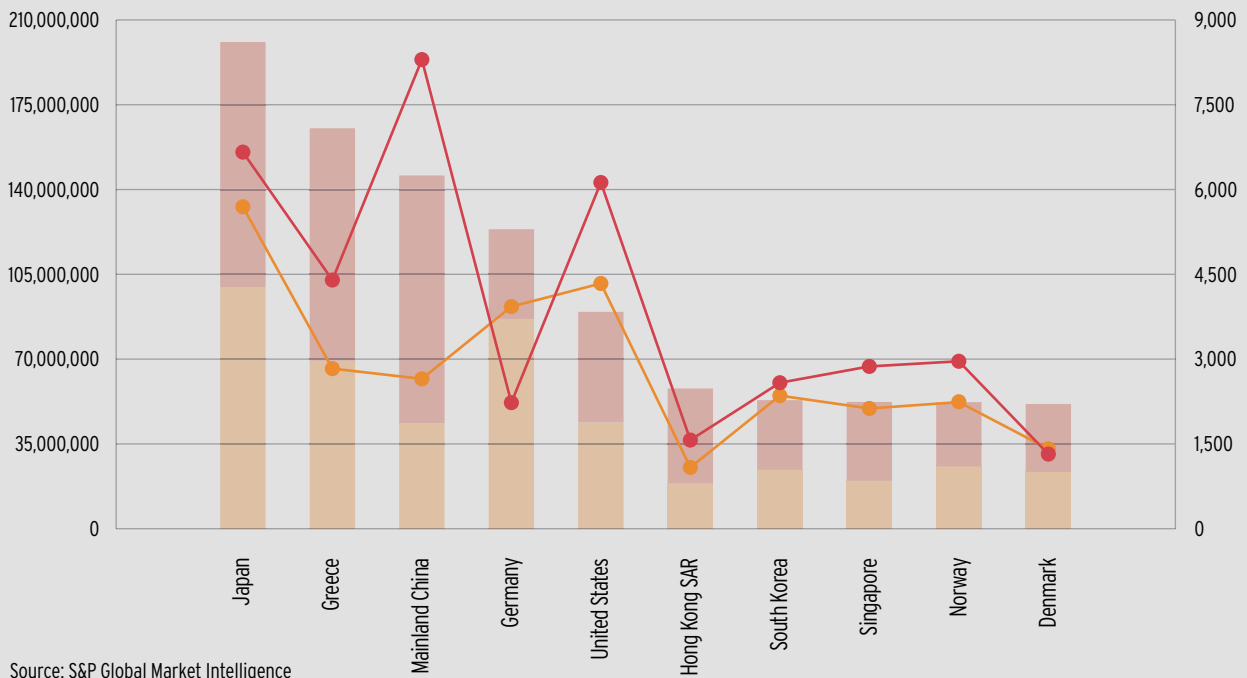


Carbon dioxide emissions (metric tons)

Year 2012 (orange) Year 2022 (red)

Shipowning nationality (number of ships over 100GT)

Year 2012 (orange) Year 2022 (red)



Source: S&P Global Market Intelligence



reporting and action. It is therefore crucial for flag states and ship-owning economies to intensify their efforts in improving the carbon-emission performance of the global fleet.

### Clearing port inefficiencies

The second element to reducing emissions in maritime is the port stay. Over the years, there have been gradual improvements to the length of time ships spend in port. However, any progress made was lost during the COVID-19 pandemic.

As pandemic-related disruptions eased in the second half of 2022, ship turnaround times improved in most markets.

Container ships tend to spend more time in developing countries' ports than at those in developed countries. These averages can be explained by a combination of faster clearance times, better infrastructure and higher labor productivity. However, during the COVID-19 pandemic, waiting times surged more in developed countries, even exceeding those of developing countries in early 2022. As demand for containerized goods went up, ports could not cope with the surge in volumes and experienced congestion, especially in North American and some European ports.

Therefore, port delays often indicate port inefficiencies. These are commonly attributed to administrative and institutional challenges around clearing goods. Investing in digitalization and technology can help improve predictability and reliability, creating efficiencies and reducing delays.

When it comes to efficient ports, smooth sailing depends on well-oiled regulatory processes. Certain trade facilitation measures can unlock smoother operations. When correlating the distributions of the World Bank's Container Port Performance Index by country according to their implementation status for relevant articles of the Agreement on Trade Facilitation of the World Trade Organization, there are positive correlations for certain measures, such as risk management, authorized operators, border agency cooperation and single window, which may hold the key to better port performance.

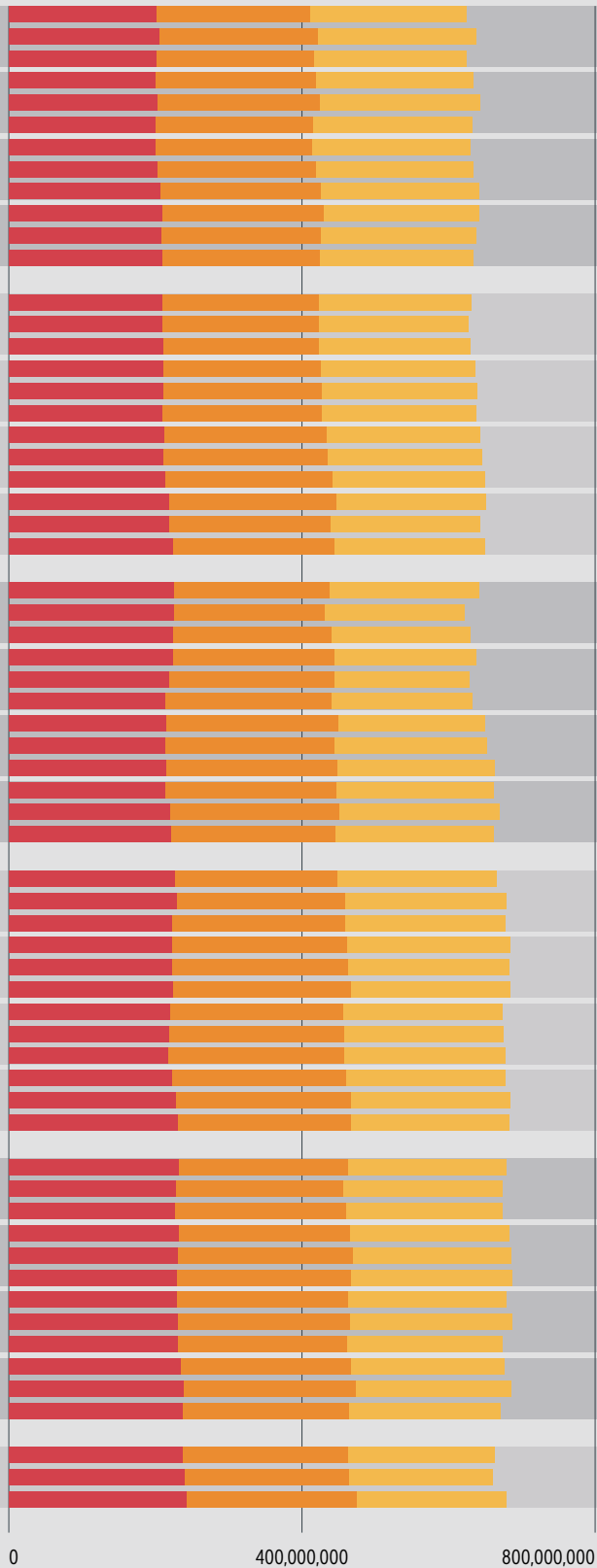
In 2024, IMO will introduce a significant development in digital port infrastructure with the mandatory implementation of electronic maritime single windows (MSW). The MSW aims to establish a robust digital framework to optimize port operations. It will have far-reaching implications, requiring enhanced interoperability and seamless coordination among port agencies. This calls for strong support from all IMO members, especially developing countries and less developed countries, which lag behind in implementing similar WTO measures under the Agreement on Trade Facilitation.

Other new environmental requirements could mean additional red tape and controls when importing goods. The carbon border adjustment mechanism (CBAM) is an instrument within the European Green Deal, which mobilizes funding for sectors related to climate change. Since October 2023, importers have to pay an import tariff on carbon-intensive goods entering the EU. Border agencies will have to report carbon emissions for products using CBAM certificates, which represent one metric ton of CO<sub>2</sub>. The administrative workload associated with CBAM certification will occur before the border crossing. These new carbon mechanisms could again change the trade facilitation process and increase compliance procedures prior to customs clearance. ■



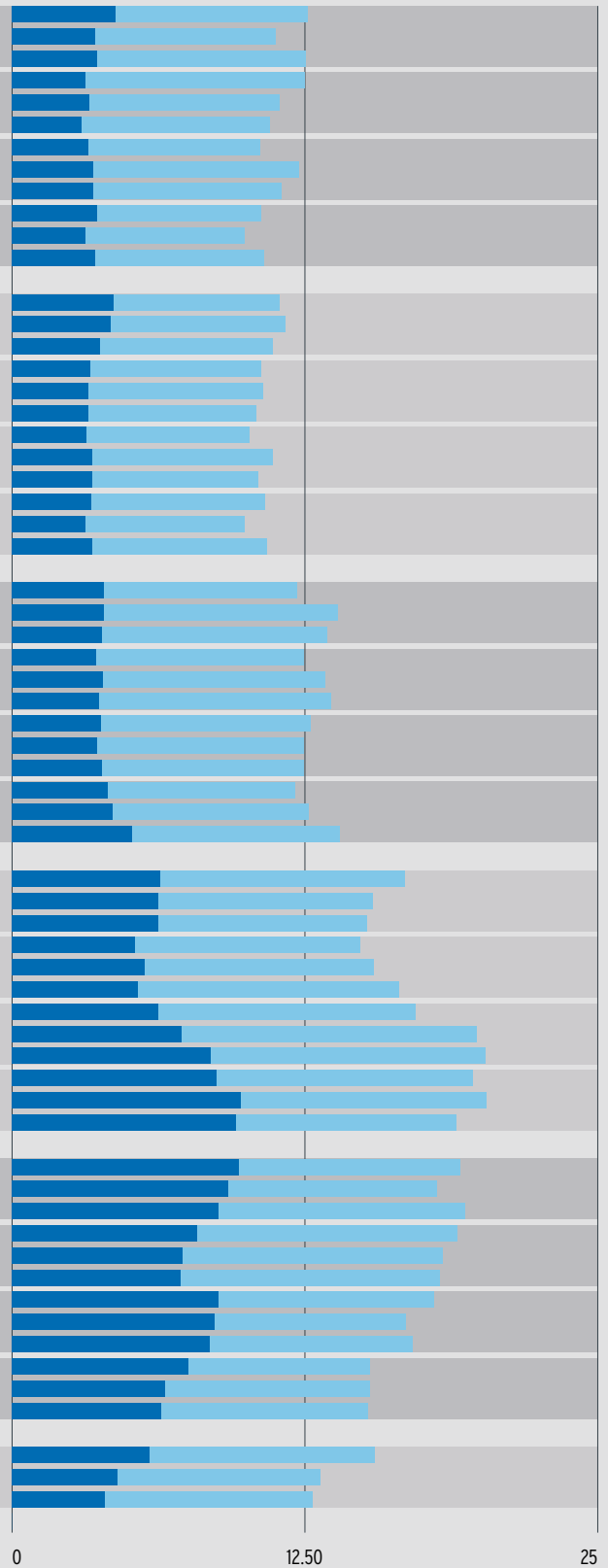
### Carbon dioxide emissions by main vessel types in metric tons

■ Tankers ■ Dry bulk and general cargo ■ Container



### Average wait times of container ships at port in hours per month

■ Developed countries ■ Developing countries





**PETER TIRSCHWELL**

Vice president, Shipping Intelligence, S&P Global

# THE COLUMN

## Nothing normal about terminal deal

**A**s CMA CGM SA emerged victorious in August from a competitive bidding process for two container terminals at the Port of New York and New Jersey (NY-NJ), two terms of the deal jumped out: the world's third-largest container line would assume "full responsibility for wharf and berth maintenance" and agree to "participation of the port authority in demurrage revenues".

Such terms are unusual, given that in landlord-tenant port relationships like those at the NY-NJ port, it is the traditional role of the port authority to maintain the berth, while demurrage is a core revenue component of the tenant. The deal makes the relationship between the carrier and the port look more like a business partnership.

However unusual that may be, in the current environment where carriers earned all-time high profits during the pandemic and CMA CGM itself generated \$68 billion in total EBITDA since 2020, what is clear is that prior rules no longer apply. So vast were the carrier profits that Sea-Intelligence estimated that the container lines since 2020 earned "far greater operating profits than they did in the combined previous 63 years, since the maiden voyage of the first container ship".

That chanced the calculus in what otherwise would have been a much more routine terminal transaction. The NY-NJ port, which carefully nurtures its credit rating to keep borrowing costs in check, felt it had unique leverage now to drive a hard bargain with the Marseille-based carrier, even if it was criticized for undermining financial viability of terminal investments.

"Terminal assets have to generate high returns in order to ensure both capital for future investments, like electrification, ex-

pansions, and IT upgrades, plus provide for the returns the shareholders are entitled to for this level of capital risk," said Peter Ford, founder of SkyRock Advisors and a former port executive at CMA CGM, APM Terminals BV and GulfTainer Co. Ltd.

It was not just the massive profits the carrier had earned; multiple other factors came into play that enabled the port to win significant concessions in the lease transfers.

One factor is the port's continuing robust container import franchise serving the wealthy New York metropolitan area and Midwest consumer markets. NY-NJ's US import market share among East Coast ports was unchanged at 33% year to date through September comparing 2017 and 2023, according to S&P Global Market Intelligence.

The port's share of imports among all US ports grew from 15% to 16% during that same period. The port has a reputation among imports for longshore labor peace, unlike on the US West Coast, and will benefit from growing Suez routings as Asian manufacturing continues to gravitate from mainland China to Southeast Asia.

Another factor of value to CMA CGM is having its own terminals at a key gateway. As a carrier, this allows it to "control its own destiny" according to one executive, meaning your ships, and your customers' cargo, have priority. ■

**"The NY-NJ port felt it had unique leverage now to drive a hard bargain"**

### ABOUT THE AUTHOR

**PETER TIRSCHWELL** is the vice president of the Shipping Intelligence division within S&P Global Market Intelligence. He leads The Journal of Commerce (JOC) and JOC.com, and is responsible for JOC events such as TPM.



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PROJECT FOCUS SOMALIA

# Lift up

Somali port infrastructure unravels tremendous potential as piracy saga ends

VLADISLAV VOROTNIKOV

**E**normous investments in the port infrastructure herald the beginning of a new chapter in the history of Somalia. Once an outcast – a region with endless conflicts and flourishing piracy – is now on a fast track to becoming a global trade hub with its Berbera and Gara’ad seaports.

In 2016, DP World Ltd. won a 30-year concession from the government of the Republic of Somaliland, a breakaway region unrecognized by the global community, for the management and development of a multipurpose port at the Port of Berbera, with an investment of more than \$400 million to expand and upgrade port capacity. Since work began in 2017, the port’s vessel productivity jumped by 450%, while container and general cargo volumes increased by 30% and 90%, respectively.

“DP World plans to transform Berbera, which sits alongside one of the world’s busiest sea routes, into an integrated maritime, logistics and industrial trade hub to serve the Horn of Africa, a region with a population of more than 140 million people,” said DP World group vice president Adal Mirza.

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**Pictured:** Berbera port.

Photo: ED RAM/AFP via Getty Images





Main port
 Planned port development
 Capital city

Source: S&P Global

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For Somaliland, the importance of the Berbera port is impossible to overestimate. It is expected to be a backbone for the regional economy.

"As a result of the expansion, Berbera is expected to facilitate trade equivalent to approximately 27% of Somaliland's GDP and 75% of regional trade by 2035," Adal said, also emphasizing the importance of the Berbera Special Economic Zone (BEZ), the first part of which DP World and the government of Somaliland inaugurated in March 2022.

The BEZ is located just 15 km from the port along the Berbera-Wajaale Road, commonly known as the Berbera Corridor, which connects to Addis Ababa in Ethiopia that needs multiple sea gateways to meet its trade requirements.

The master plan for the BEZ covers more than 1,200 hectares and will be expanded over time as demand grows. With phase one now open, it offers serviced land plots for the construction of company facilities, 10,000 square meters of prebuilt warehouses, build-to-suit facilities, open-yard storage, a common user warehouse that DP World will operate to handle customers' cargo, as well as office space with end-to-end IT services, according to Mirza.

### Transit comes to a fore

Berbera is not the only big project aimed at expanding seaport infrastructure. In 2022, Somalia opened Gara'ad, also known as Garacad, a deepwater seaport on its northern coast, linking the southeastern region of Ethiopia and the city of Gara'ad by road. The project is part of a total invest-

ment plan of \$531 million to boost exports of livestock, fish, minerals and agricultural products. Like Berbera, it is largely called to facilitate the transit of a long list of goods from neighboring countries.

"Recently, there has been great ferment in port infrastructure development in Somalia," commented Danilo Desiderio, CEO of the Nairobi-based consultancy DDC Customs Law. "In my opinion, this growth has been mainly driven by the need of its landlocked neighbor – Ethiopia – to diversify its access routes to the sea to reduce its dependence on Djibouti, which currently channels more than 90% of Ethiopian trade, but is also one of the most expensive ports in East Africa."

The Ethiopian government is vigorously pursuing a diversification strategy in the use of ports and road corridors in the region, in the belief that this will lead to a significant reduction in the high service charges it currently pays to Djibouti for the use of the Doraleh and the Tadjoura ports owing to the increased competition among ports in the region.

In July 2023, Ethiopian prime minister Abiy Ahmed announced that the Ethiopian government is exploring all options to secure additional outlets in the region, defining the current port costs that the country pays as "unsustainable," according to Desiderio.

"I am therefore convinced that this trend will continue and that in future, the competition among ports in the region will become even more harsh. Apart from Berbera and Gara'ad, Ethiopia has recently shown interest in participating in the development works of another port in Somaliland, which is Zeila, close to the Djibouti border," Desiderio said.

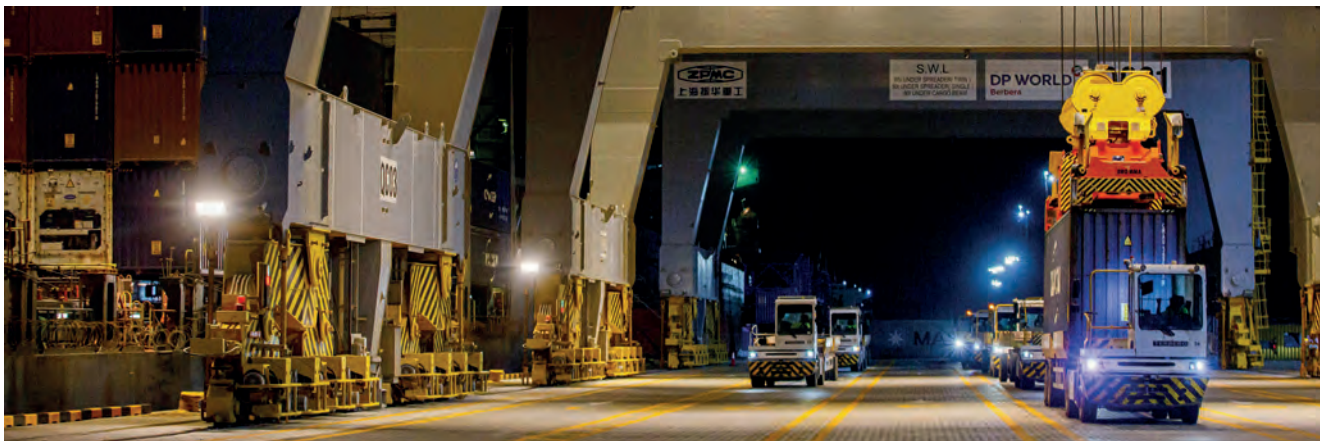
### The dawn of piracy

Somalia has the longest coastline among all African countries at over 3,300 km and is at the entry and departure point of one of the world's most important international commercial shipping lanes, located south of the Suez Canal. It seems to be a perfect place for investments in port infrastructure. However, for the last few decades, foreign investors have been reluctant to come to Somalia owing to persistent political instability, one of the consequences of which was notorious piracy. With no attacks off the coast of Somalia on merchant vessels in the past several years, world powers consider the problem is now over.

"The pirate threat is currently suppressed and shows no sign of reemerging," said John Stawpert, senior manager at the International Chamber of Shipping.

"There are a number of reasons for this: the preparedness of ships transiting the region, reducing viable targets for pirates; the emergence of a coherent multinational military presence coordinated through the EU's naval force SHADE; and the use of armed guards," added Stawpert. "No successful hijacking has been reported since March 2017, and both attempts and attacks have declined sharply since 2013."

"All these factors combined to render Somali piracy unviable as a criminal enterprise, and the gangs and kingpins moved into other areas of criminality, exploiting the civil war in Yemen. Development on the coast and societal factors in Somalia have also helped ensure that piracy is likely to remain suppressed in the long term, not least because pirates do not have access to the anchorages where they previously harbored hijacked ships," said Stawpert.



**Pictured:** Night-time operations at DP World's Berbera port.

Photo: ED RAM/AFP via Getty Images

John Steed, coordinator of Somali Counter Piracy initiatives through the UN's Kampala Process, commented that in his opinion, the end of the piracy era in Somalia saw a realization by local political and business leaders that there was money to be made from other transnational crime, as well as legitimate business.

"The less scrupulous businessmen saw that there was more money to be made from trading in guns and other weapons, and creating small ports and landing places where imports free of taxes could be easily done," said Steed. Stawpert agreed. "There are other security threats in the region, and while there is always the possibility that Somali piracy could resurge, at the present time, it seems a remote prospect," he said.

While military presence proved to be effective in taking down piracy, economic improvement, thanks to new investments, is expected to end this problem for good.

"Any new opportunities for trade will obviously be good for shipping, but more importantly, they will benefit the region in terms of economic growth and benefits to the local community and Somali society in general," said Stawpert.

"The impact of coastal development has already been seen in reducing the capability of pirates to access anchorages, and the development of local constabulary forces has had an impact on maritime security for the better. However, the situation is fragile, and what is needed is for these ink-spots to spread along the coast and to bring the benefits of free and secure trade to the whole country," added Stawpert.

The ports on the northern Somali shores satisfied the import requirements for Puntland, Somaliland and Eastern Ethiopia, but the eastern Somali shores, the old pirate ports, potentially opened up the east and west routes into southern Ethiopia if they could build small ports with good road connections to Ethiopia, which includes Gara'ad port prospects, according to Steed.

"These new small ports also opened up opportunities for fish exports. Legitimate east coast ports, therefore, became key, and the security requirements necessary for business overcame the desire for piracy," Steed added.

### Security, energy costs weigh on operations

Even with piracy being defeated, Somalia is definitely far from being ranked the world's safest place.

"Another major constraint to the development of Somalia as a logistics hub is the internal security," Desiderio said, explaining that as Somalia has no railway system, road transport is currently the only option of moving cargo to the seaports. The perceived risk of insecurity in Somalia is currently very high, and most logistics companies avoid using the country's roads because they are unwilling to accept the risk of endangering their vehicles and cargo.

"The situation is much better along the Berbera corridor, as Somaliland is relatively safer compared to other regions of Somalia. For this reason, the Berbera port has, in my opinion, the greatest potential for development in the region," Desiderio added.

On the other hand, he continued, it must also be taken into account that Somalia is also the Horn of Africa's country with the highest energy costs, and since ports consume a lot of energy, a necessary condition for Berbera to remain competitive with other ports in the region is for the government to be able to attract investment in renewable forms of energy that can lower this cost. Djibouti, which, after Somalia, has the region's highest cost of electricity, is trying to reduce these costs through renewable energy development.

The 59-MW Ghoubet wind farm, the 30-MW Grand Bara solar plant, and the 30-MW Fialéh geothermal project are examples of some of the projects that are being implemented in the country.

"Djibouti has benefited from two interconnection projects with Ethiopia, financed by the African Development Bank, the first in 2011, and the second in 2021, that has allowed the country to import electricity at a relatively cheaper cost," Desiderio said, expressing confidence that Somaliland must initiate similar projects if it wants its port to remain competitive in the long term. Bearing in mind that being unrecognized by the international community, it is not eligible for grants and concessional loans offered by international financial institutions.

"This determines the need to involve mainly the private sector in mobilizing the necessary funds for its future development plans," Desiderio added. ■





LOOKOUT ISRAEL-HAMAS WAR

## Pressing on

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**F**ollowing the attack by Hamas on Israel on Oct. 7 and the ensuing war, operations in Israeli ports mostly continue except for the closure of main oil import hub Ashkelon.

The port is in the south of Israel near the Gaza Strip, and at the time of writing, no ships were inbound for the port.

Further north from Ashkelon, the Port of Ashdod has restricted hazardous materials transport for security reasons. Transits at the port have slowed down, leading to backlogs. However, the port said on X (formerly known as Twitter), “We continue to unload and load goods quickly and efficiently to continue to strengthen the Israeli economy.”

In the north of Israel, Haifa port reinforced staff numbers to ensure continued operations. “Haifa port also played a crucial role in repatriating Israelis via cruise ships and assisting in the evacuation of foreign citizens from the country,” the port stated.

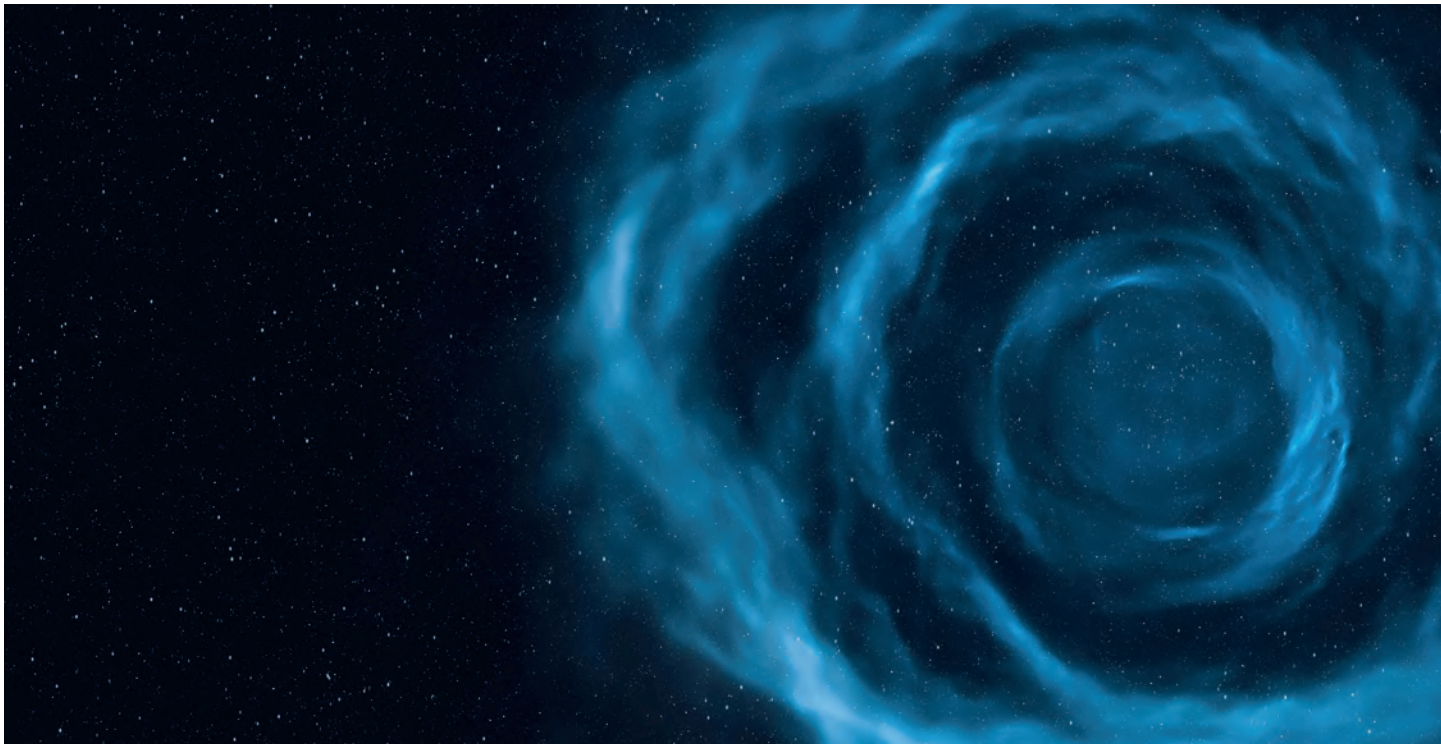
Israel’s largest export lines include electronics, healthcare and defense products, which could face operational or logistics disruptions in the event of escalated conflict, according to S&P Global Market Intelligence.

It remains to be seen how freight rates, influenced by potential cargo, port and ship insurance rate surges, will react to the conflict. ■

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**Pictured:** Israel continues to deploy soldiers, tanks, and armored vehicles near the Gaza border in Ashkelon, Israel.

Photo: Saeed Qaq/Anadolu via Getty Images



PERSPECTIVE MARINE INSURANCE

# The impact of cyber crime and climate crisis on port insurance

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**O**ne of the biggest challenges facing ports today is the sea change in insurance. War, cyber crime, extreme weather, and the hangover of COVID-19-induced supply chain chaos are conspiring to make insurers far more risk-averse. Ports and terminals, as a result, are at greater risk of being overcharged and underinsured.

As a broker helping manage the relationship between the port and the insurer, our primary advice to port operators is to elevate insurance to the C-suite level. It is important to not simply extend the renewal agreement with an existing provider or base your renewal on cost. Given the risks involved, this is a job the CEO must now oversee – using their deep knowledge of the port operations and infrastructure to review the small print.

The plain fact is that coverage is reducing while premiums are increasing. This is the new normal in port insurance we are now operating in. The change is seen in three letters that represent insurers' collective state of mind, a seemingly small alteration with huge impact: normal loss expectancy (NLE).

However, NLE is slipping from the vocabulary of insurers and we, as brokers, are seeing policy quotes moving to the more expensive risk criteria of probable maximum loss or maximum foreseeable loss.

In this context, unless you understand insurance policies inside out and the specific areas where your port is vulnerable, your port can be hit with far higher premiums than actually necessary.

So let us delve a little deeper – why is this and what can ports do to better protect themselves?

## Extreme weather costs spiraling

First, extreme weather is now very much on insurers' minds. Hurricanes, flooding and storm damage are becoming more common, exposing ports' people, assets and operations to damage, disruption and third-party claims. The insurance industry is acutely aware that insured losses from natural catastrophes continue to be above the 10-year average of \$81 billion, at \$115 billion. Hurricane Ian, which struck Florida in September 2022, was that year's costliest natural catastrophic event, with an estimated insured loss of \$50 billion-\$65 billion. And as we all know, ports are on the front line of hurricane damage and claims.

A recent report by Oxford University estimates as much as \$63 billion of trade is at risk every year as a result of climate change. The conclusion being ports across





## ABOUT THE AUTHOR

**EDWARD MCNAMARA**, CEO of Armada Risk Partners, a Cleveland, US-based port insurance broker, has worked in the insurance industry for more than 15 years. Previously, he ran his own technology company and has a life-long interest in digital communication and is well-versed in cyberattack planning.

the world require rigorous planning, infrastructure upgrades and insurance policies that are watertight.

### Port blockage cover vital

One worrying trend is the lack of cover for port blockage. Considering the constant increase in premiums, some ports are seeing blockages as something to cut, as they are confident that government agencies will unblock ports following extreme weather conditions. However, governments are often wrestling with bureaucracy and other emergency priorities and they cannot be relied on to move as quickly as needed. With no port blockage insurance in place, ports are effectively paralyzed, potentially hemorrhaging income. It is therefore wise to keep port blockage in your policy. That way, you can action repairs and clearance to kickstart operations. The plain fact is that you will always prioritize your port operations better than a third party. Many ports assume the government will act after a natural disaster, but often forget that there are many other ways a port can be blocked where the government certainly will not act. For example, in the case of a ship catching fire or grounding, which blocks access to the port. Here, the ship operator may or may not have a good insurance in place. You do not want to be in the hands of a third party wrangling over fees to free the blockage.

### War wariness

Turbulent global relations are further impacting port insurance. Russia's war against Ukraine is an obvious example, as is the growing tension between the United States and mainland China and the threat of an invasion of Taiwan.

Insurers are concerned about sanctions and how that could affect, for example, port ownership with many international companies particularly from mainland China having stakes in ports.

### Be prepared for a cyberattack

Port cyberattacks are now one of the biggest and most sophisticated threats facing port operators. Nagoya in Japan has become the latest in a long line of global ports to be targeted by a ransomware attack back in July 2023.

The incident had severe consequences disrupting cargo-packing procedures, deleting large amounts of data and forcing the suspension of operations at the container terminal for three days.

As ports therefore are now painfully aware, the nature of their setup makes them vulnerable to attack.

Hosting large numbers of vessels, operated by different companies all employing a range of different IT systems, provides a perfect environment for network intrusions, hacks and ransomware attacks.

When looking at port cyber insurance, evaluating your organization's overall cybersecurity capabilities across all areas and the exposure to risk is a good starting point for ports and terminal operators.

It is important to undertake this review as part of a strategic approach to sourcing port cyber insurance. It is now more vital than ever to get your systems and processes as secure and up-to-date as possible before engaging with the insurance companies.

Insurers are looking for hard evidence of robust risk management policies and protocols, including well-prepared cybersecurity policies, along with regular assessments and continuous employee training.

This should include identifying potential threats, assessing the value and sensitivity of the data that you handle and evaluating your current security measures.

Insurance can further play a key role in helping pay for recovery costs related to cyber crimes, including third-party liabilities. Moreover, there are policies that provide incident response support, giving access to expert teams to provide guidance and support in the event of an attack.

However, it is important to stress that cyber insurance cover does not release anyone from the responsibility of risks. It requires ports and terminal operators to sustain a cybersecurity program with continuous improvement at its heart. ■



## ABOUT THE AUTHOR

**IRENE TVEDTEN** (PhD) is a senior adviser of maritime in the environmental NGO Bellona Foundation. She focuses on hull cleaning to reduce greenhouse gas emissions and the spread of invasive aquatic species.

# How to

...do hull cleaning in ports

Ports can play a key role in making in-water cleaning more widespread and thus help to cut emissions from ships by reducing biofouling that adds to the drag of ships, thus increasing fuel bills.

With the lack of international regulations, it is often up to each individual port to decide whether ships may clean their hulls.

Yet, too few ports allow for in-water cleaning today, and too few have developed policies on in-water cleaning. It is time for ports to pick this low-hanging fruit in the name of maritime decarbonization!


Here are 10 key recommendations to assist port authorities in accommodating hull cleaning while ships call at port. ■


N°1		
<b>Read the IMO's revised guidelines</b>		
<p>Get updated on recent developments within the International Maritime Organization on the topic of biofouling. For example, the IMO recently revised its guidelines for biofouling management, which were adopted at the MEPC 80 in July 2023.</p>		


N°2		
<b>Develop a policy</b>		
<p>You should have a policy or formalized procedure for in-water cleaning in your port. Any local policy should be aligned with the revised IMO guidelines, as well as national policies in your country, if available. For inspiration, you can look to the policies of Port of Antwerp-Bruges, to New Zealand's Craft Risk Management Standard, to Australia's "Anti-fouling and in-water cleaning guidelines" and also Australian in-water cleaning standards in development, as well as to Canada's "Voluntary Guidance for Relevant Authorities on In-Water Cleaning of Vessels."</p>		


N°3		
<b>Allow for proactive cleaning</b>		
<p>By allowing proactive cleaning, ports can not only limit the spread of invasive aquatic species, but also limit greenhouse gas emissions from shipping, since macrofouling causes extensive increase in fuel consumption. According to the IMO, biofouling accounts for 9% of emissions from global shipping, and other studies indicate that it is a low estimate. Proactive cleaning without capture can be safely conducted on microfouling, given the low biosecurity risks associated with such early-stage biofouling. This recommendation is in line with the recently revised IMO guidelines.</p>		


N°4		
<b>Ensure safe capture</b>		
<p>Ensure that macrofouling is cleaned using capture in your port, which is a recommendation in line with the revised IMO guidelines. Cleaning of heavily fouled ships without proper capture mechanisms may result in invasive aquatic species and waste material being released into the water. Make policies that require cleaning operators to capture as close to 100% of the waste materials as possible.</p>		


<b>N°5</b>		<b>Smooth the process</b>
<p>Smooth the process of in-water cleaning by clearly communicating your requirements to cleaning service providers and ship operators and shipowners. Establish routinized processes for approval – for example, is documentation requested from potential service providers submitted via a portal, email or in paper version?</p>		

<b>N°6</b>		<b>Accommodate for inspection</b>
<p>Inspections, whether it is through sampling or inspections of the whole hull, is an important tool in the quest to prevent the spread of invasive aquatic species. Inspection is often necessary for in-water cleaning to be conducted, but inspections may also detect heavily fouled ships. By accommodating frequent inspections, you may prevent ships that pose biosecurity risks from staying in your port.</p>		

<b>N°7</b>		<b>Coordinate with stakeholders</b>
<p>Port authorities should coordinate with representatives from vessel operations and ownerships, terminal operators and the cleaning service provider. Ports should ensure that in-water cleaning is coordinated with all ship in-port operations within an allowable time frame. This coordination should include discussion of contingency and emergency measures.</p>		

<b>N°8</b>		<b>Include in-water cleaning in green corridors</b>
<p>When developing green corridors, port authorities should work to include frequent in-water cleaning. By including in-water cleaning as an established part of green corridors, you create predictability for shipowners and cleaning operators, and in turn promote proactive cleaning regimes that consistently keep GHG emissions and biofouling at a minimum.</p>		

<b>N°9</b>		<b>Care about the ships leaving your port</b>
<p>Be concerned with what ships bring with them from your port. Most ports care about what ships bring to their ports, and what they release during idle periods or cleaning. But what about the biofouling that accumulates during a ship's stay in your port? These organisms could turn out to be invasive when introduced in other local environments, and ships may use more fuel and release more GHG emissions as a result of biofouling accumulated in your port.</p>		

<b>N°10</b>		<b>Get involved</b>
<p>Join the working group working on the ISO standard – more ports are welcome! You can also join Bellona's Clean Hull Initiative to keep up to date on in-water cleaning-related matters.</p>		

# From ancient linkages to new ones

Transport corridors have been an essential part of global trade for centuries. The historically significant trans-Caspian routes regain importance with today's' increased energy transport

GORDON FELLER AND INES NASTALI

H

istoric transport routes ran from mainland China and India to the Middle East or Europe as well as north of, south of, and across the Caspian Sea – a nodal point in this scenario.

The Caspian's most famous land transport corridor was the silk routes, an ancient network of trade routes connecting mainland China with Europe and the Middle East. It was in use for centuries, playing a major role in the transmission of goods, ideas, and cultures between East and West.

The routes developed based on the trade of silk textiles manufactured in mainland China that was sought after mainly by customers in Italy, Egypt, and Greece. Also tea, dyes, and porcelain were exported to the west. From there, livestock, such as camels and horses, honey, wine, and gold were sent eastbound.

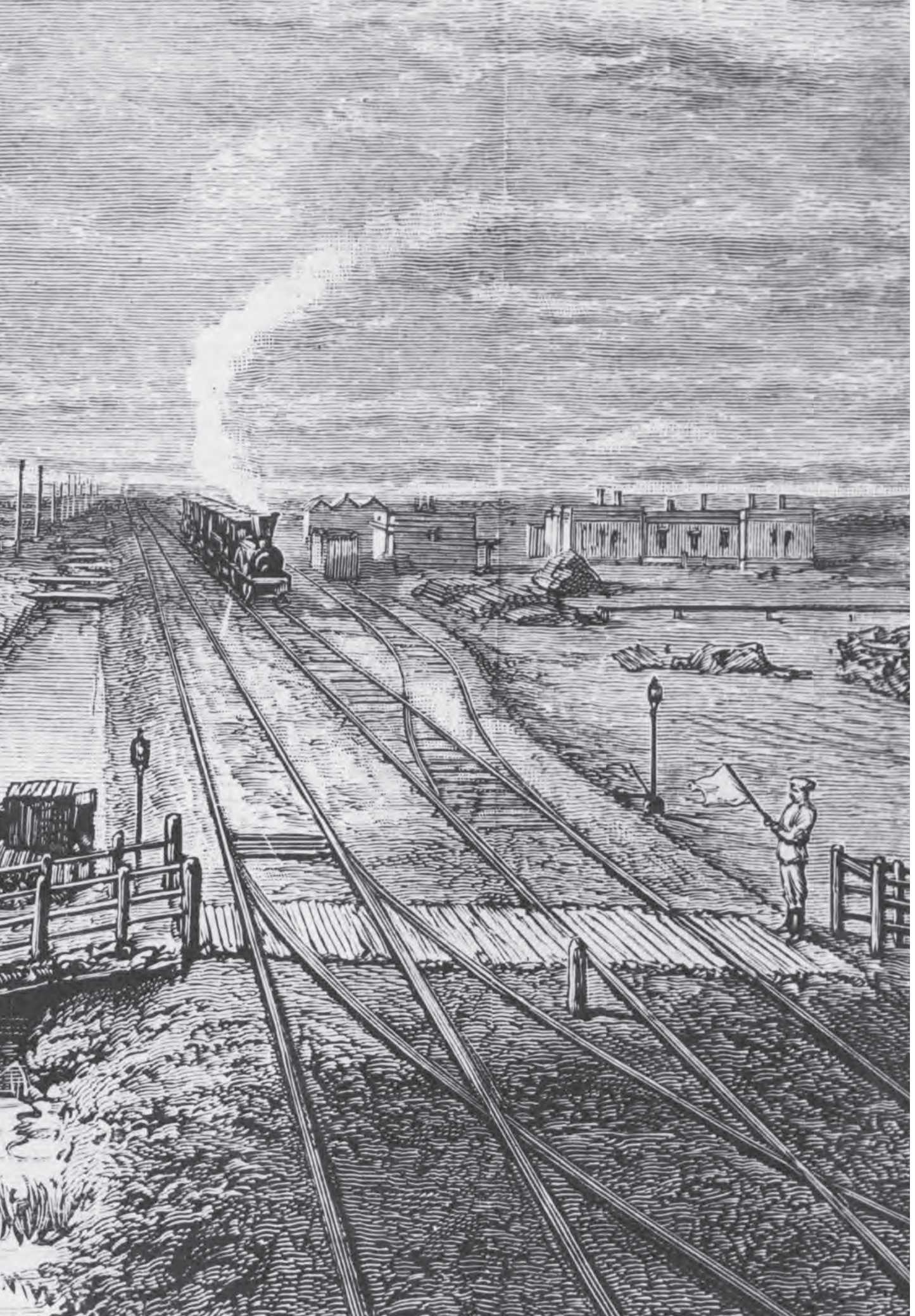
Having existed for more than 1,500 years, the network altered world trade with other products being exchanged, including paper and gunpowder.

In the 15th century, trade ties among the routes were severed with the rise of the Ottoman Empire, which imposed taxations for the West and introduced rules pertaining to the religion of the traders. Europeans, therefore, looked westward and took to the seas for continued trade.

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**Pictured:** Construction of the Trans-Caspian Railway.  
**Photo:** Universal History Archive/Universal Images Group via Getty Images





VIEW ASTERN TRANS-CASPIAN TRADE ROUTES

This dominance of maritime transport between Europe and East Asia relegated Central Asia, a subregion of Asia that stretches from the Caspian Sea in the southwest and Eastern Europe in the northwest to Western China and Mongolia in the east, and from Afghanistan and Iran in the south to Russia in the north, to an economic backwater.

### The Central Asian rail trade

The region remained largely incorporated into the Russian Empire and was part of the Soviet Union from 1917 to 1991, with most trade links flowing north to the Russian Federation. However, new transport corridors gradually opened, particularly in the form of pipelines and railway lines.

One of the region's most important land transport corridors was the trans-Caspian Railway (TCR). It was built by the Russian empire's forced laborers to connect the city of Baku on the Caspian's coast in Azerbaijan with the rest of the empire. The TCR's construction program began in 1880 and was completed in 1900. The railway was 1,468-km long and connected Baku with Uzbekistan's Samarkand and the cities of today's Turkmenistan: Türkmenbaşy, Ashgabat, and Merv.

The TCR's construction made it possible to transport goods, such as oil, cotton, sugar, kerosene, wood, iron, and construction materials, as well as people, quickly and efficiently between Europe and Asia.

"From 1893, Russian entrepreneurs used it to bring in massive amounts of wheat from the West, which had a remarkable economic impact on the region. The wheat imports were decisive in stimulating an agricultural transition from wheat to cotton-growing in the Syr Darya and Amu Darya river valleys," researcher Per Högselius of KTH Royal Institute of Technology, Sweden, reported in his paper *The hidden integration of Central Asia: The making of a region through technical infrastructures*. "Prospects for cotton exports to and wheat imports from Russia, in turn, inspired railway system builders to propose further projects. Thus, in 1906, the Russians completed a new Central Asian railway from Orenburg via the Kazakh steppes to Tashkent," he added.

However, more than 150 years ago, the TCR was also seen by the Russian czar as a means for consolidating Russian imperialist control over Central Asia. It became possible for Russia to quickly deploy troops to the region in case of unrest, thereby ensuring czarist control over rich colonial conquests. Not surprisingly given its versatility, the TCR is still in use today.

### The gas trade

"After the Second World War, a further, equally critical infrastructure was added – natural gas pipelines. This development was led by the Soviet gas ministry. It started in the 1950s, when Soviet geologists discovered several large gas fields in Gazli near Bukhara in Uzbekistan. The

immediate impulse on Moscow's part was to set up a new chemical-industrial complex next to these fields to make productive use of them," Högselius said. However, it soon turned out that the gas resources were so large that a single local complex would not be able to absorb all of them," the researcher added.

The gas ministry then set out to build a regional pipeline infrastructure to make Uzbek gas available to the other Central Asian Soviet republics. "This would, the experts thought, enable substantial savings of coal and oil in the region, while also enabling some smaller gas fields that had been discovered in the Fergana Valley and elsewhere to be integrated into the system."

### The future trade

In the 21st century, with the ever-increasing significance of Central Asia as an energy producer, countries constructed several more oil and gas pipelines. For trade in other goods, new transport corridors opened more slowly until, in the 2010s, the China-EU rail links began operating through Kazakhstan.

One of the most significant developments in the trans-Caspian corridor is the International North-South Transport Corridor (INSTC). The INSTC is a 7,200-kilometer-long multimode network of ship, rail, and road routes for moving freight between India, Iran, Azerbaijan, Russia, and Europe.

The INSTC is expected to create a major commodities transit corridor between Europe and the Gulf region, based on traffic volume forecasts of 18.3 million metric tons per annum.

With the Russia-Ukraine conflict ongoing, trade routes are also being reshaped with a focus on the so-called Middle Corridor emerging. This spans from Türkiye to Central Asia and mainland China.

Shipping lines have since established train services through the trans-Caspian route, which bypasses Russia, as well as via the traditional maritime route

through the Indian Ocean.

"The corridor's major components include the trans-Caspian East-West-Middle Corridor Initiative, the trans-Caspian International Transport Route and the trans-Caucasus Trade and Transit Corridor. For its advocates, the Middle Corridor will breathe new life into the ancient Silk Road," said Felix Chang, a senior fellow at the Foreign Policy Research Institute.

"Their excitement over the Middle Corridor lies in its potential to reduce the time needed to ship goods between East Asia and Europe to as few as 12 days. If achieved, it would give the Northern Corridor and sea-borne trade via the Indian Ocean – Eurasia's other two major trade routes – a run for their money," he explained. Shipments would therefore take a week less.

However, reliability is the key issue to make this work. "A trade route is only as good as its ability to move goods cheaply and on schedule. That requires efficient facilitation and intermodal transfer services, neither of which

"Russians used the railway to bring in massive amounts of wheat, which had a remarkable economic impact on the region"

PER HÖGSELIUS

KTH Royal Institute of Technology



**Pictured:** Construction of the trans-Caspian Railway.  
Photo: Universal History Archive/Universal Images Group via Getty Images

have been fully developed along the Middle Corridor yet. In contrast, Russia's trans-Siberian Railway benefits from a network of services that was developed over many decades. Plus, the railway transits through large Russian and Belarussian industrial and population centers, which adds cargo volume and thereby defrays costs. While the Middle Corridor also hopes to foster more intraregional trade, the industrial and population centers in Central Asia and the Caucasus are far smaller than Russia's," Chang said.

Another challenge is the climate around the Caspian Sea, a body of water over which much of the Middle Corridor's trade must pass. "The Caspian Sea's notoriously rough waters during the summer can delay ferries for weeks at a time, exacerbating the often-bad congestion at the Port of Baku. While Azerbaijan has sought to expand Baku's port capacity with new terminals and ferries, it can do little about the weather."

Lastly, administrative issues plague the corridor, with cargo traversing multiple borders and countries, which results in additional checks and customs charges. "For years, representatives from Azerbaijan, Georgia, Kazakhstan, and Türkiye have met to sort them out. But it was not until November 2022 that they crafted a roadmap to do so. Unfortunately for them, this roadmap

is expected to take at least five years to fully implement," according to Chang.

The near- and medium-term success of these trans-Caspian links will therefore depend on many factors — geopolitical challenges, adequate investment in infrastructure, leveraging technological advancements, as well as fostering regional cooperation.

As global energy priorities shift toward sustainability, there could also be a push for renewable energy projects around the Caspian Sea. Solar, wind, and other renewable energy initiatives could gain traction, contributing to both regional energy security and environmental goals.

The Caspian Sea's increasingly fragile ecosystem, experiencing pressures from overfishing, pollution, and oil- and gas-related activities, will likely prompt more intense attention on conservation.

Governments, nongovernmental organizations, and businesses will be especially interested to see money flowing into ambitious projects, which will result in greater resiliency.

This is a result of growing incidences of extreme weather, which accompany climate change. Balancing economic development with environmental preservation is an aim likely to influence the planning and execution of the most visible trans-Caspian projects.

If successful moves are made, Central Asia could, one day, reclaim its historical position as a vibrant crossroads of trade and connectivity, thereby facilitating economic growth and fostering regional integration in the process. ■

# Enrol for International Port Strategy course

The International Port Strategy course 2024 will be held online from April 15 to May 10, 2024 with a combined one-week visit and workshops in Antwerp, Belgium, from May 13 to 17, 2024.

This course is a joint effort between the Antwerp/Flanders Port Training Center (APEC), Antwerp Management School and the IAPH. It is designed for C-level executives, strategists and other professionals from ports, terminal operators, shipping lines, logistics service providers or consulting firms. The course aims to give participants a comprehensive understanding of the global port industry as a key component of the global value chain. Participants will gain insight into how these trends are shaping the port industry and the strategies needed to navigate them successfully. The course contains six modules: global macroeconomic and geopolitical shifts, reflections on climate change, changes in the

global supply chain, regional evolutions in port development, port management, and strategies and perspective of the various actors in the supply chain. Speakers will feature representatives from UNCTAD, the World Bank, several universities, global ports and maritime organizations.

The cost for this course is €4,600. IAPH members enjoy a 20% discount and the alumni of APEC and Antwerp Management School receive a 10% discount. ■

Contact course organizer Ken Houtevelts for more information:  
@ ken.houtevelts@portofantwerpbruges.com

Register online via:  
🌐 [www.apecporttraining.com/register/?courses=1073](http://www.apecporttraining.com/register/?courses=1073)

## Membership notes

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

### Regular members

Cartagena  
Port Authority

📍 Spain  
📞 +34 968 325 800  
@ [fmunoz@apc.es](mailto:fmunoz@apc.es)  
🌐 [www.apc.es](http://www.apc.es)  
👤 José María Gómez Fuster,  
general director

ATCO Ports Management and  
Services Division

📍 Saudi Arabia  
📞 +96 65 5265 0554  
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🌐 [www.atco.com.sa](http://www.atco.com.sa)  
👤 Ahmed Khairalla,  
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👤 Vijayaindian s/o R.Viswalingam,  
general manager

### Associate members

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👤 Adriana Belei, senior digital marketer

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@ [paul.marks@ukho.gov.uk](mailto:paul.marks@ukho.gov.uk)  
🌐 [www.admiralty.co.uk](http://www.admiralty.co.uk)  
👤 Paul Marks, head,  
UK Data Partnerships

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📞 +91 44 2486 2482  
@ [ocean@indomer.com](mailto:ocean@indomer.com)  
🌐 [www.indomer.com](http://www.indomer.com)  
👤 P. Chandramohan, managing director

## EVENTS TIMELINE 2023

14

**NOVEMBER (14-15)**  
Container Terminal Automation  
Conference taking place in Virginia, US

🌐 [www.ctac.ptievents.com](http://www.ctac.ptievents.com)

21

**NOVEMBER (21-24)**  
IMO Council  
Supervisory meeting

🌐 [www.imo.org](http://www.imo.org)

27

**NOVEMBER-DECEMBER (27-6)**  
IMO Assembly  
Approval of work program, budget and  
election of IMO Council

🌐 [www.imo.org](http://www.imo.org)





Recently elected as IAPH Europe's vice president, Stéphane Raison discusses the challenges European ports face and where his focus lies in his new role

# Q&A

STÉPHANE RAISON  
CEO, HAROPA Port

## Q: Can you introduce yourself and your priorities at HAROPA?

A: I am Stéphane Raison, CEO of HAROPA Port, the first port of France. French civil servant of the Ministry of Transport, chief engineer by formation, I started my career in the maritime and coastal sector. First, for Les Sables d'Olonne as head of the Maritime and Risks Department, then I joined the Port of Dunkirk in early 2009 as director of Planning and Environment where I managed the project for the installation of the LNG terminal.

From 2012 to 2014, I led the reform of the port of La Réunion (Indian Ocean), where I developed the European container hub project, among others. I went back to Dunkirk as chairman of the Executive Committee from 2014 to 2020.

In November 2020, I was asked by the prime minister of France to complete the merger of the Ports of Le Havre, Rouen and Paris (HAROPA), the most important project in the field of port and maritime affairs in France and Europe. And since June 1, 2021, I have been the CEO of HAROPA Port.

Among my key priorities for the ports, I intend to continue the investment and the transformation of the ports, developing the first decarbonized industrial ecosystem and continuing the structural development of their multimodal logistics corridor.

During my career, I have always been very involved in circular economy, energy transition and industrial ecology. I think that the port authority of tomorrow must be able to play a proactive role to contribute and put in place a new frame of growth fully in line with climate change, energy transition and sovereignty of reindustrialization.

I strongly believe that the efficiency of a port is linked to the interactions between industrial actors, the logistic sector and shipping companies. For me, the port authority is the only player able to create synergies among different sectors to not only develop the port but also its territory.

## Q: What are the current challenges the port sector in Europe faces?

A: Ports are used to face crises and to be resilient, but in the past five years, we had to manage huge challenges every year (COVID-19, supply-chain disruption, war in Ukraine, inflation, price and availability of energy). The role of port authorities is completely different today from what it was 10 years ago. We have to offer new solutions to our customers and we also have to take the people living around the ports more and more into account. The world has changed and we therefore must change our way of how the ports develop, keeping in mind the benefit of our partners, and also the wellbeing of local citizens.

## Q: What are your strategic focus areas for your work as IAPH Europe vice president?

A: The role of IAPH is to share existing best practices that could be replicated in other ports to save time and to be more efficient. As IAPH Europe vice president, I am committed to continuing my work on key topics for port resilience and support the organization's strategy and workplan.

I have earmarked the following topics:

- Green ports – sharing knowledge and expertise to foster the greening of transport;
- Port as a tool for the reindustrialization;
- Acceptance of port activities and collaboration with communities;
- Innovation – how ports could play a role to enhance R&D and innovation;
- Safety and security with a focus on cybersecurity.

I strongly believe in the power of the network of IAPH. All over the world, ports are facing the same challenges and I am convinced that together, we go further!

## Q: What cooperation with other IAPH regions and committees are you looking for?

A: As all ports are currently facing the same challenges regarding climate change and energy transition, my aim as vice president is to ensure that all the good practices will be shared among the different regions of IAPH – especially within the internal Climate and Energy & Risk and Resilience Committees. That will allow us to replicate more efficient technologies and processes already in place, which demonstrated the efficacy in tackling global warming, CO<sub>2</sub> emission and safety and security issues. ■

28

### NOVEMBER (28-30)

30th Intermodal Africa 2023  
Africa-centered discussions in  
Port Autonome de Cotonou, Benin

🌐 [www.transporevents.com](http://www.transporevents.com)

5

### DECEMBER (5-6)

Smart Digital Ports Of The Future  
Conference in Halifax, Canada

🌐 [www.sdp-northamerica.ptievents.com](http://www.sdp-northamerica.ptievents.com)

3

### MARCH (3-6)

TPM 2024  
Container shipping conference in  
Long Beach, US

🌐 [www.events.joc.com/tpm](http://www.events.joc.com/tpm)



## BOOK AUTHOR

**KAT JANOWICZ** is a leader and business strategist in energy, transportation, and global trade. She has assessed clean technologies, infrastructure upgrades and associated risks to support informed decision making.

# THE REVIEW

Chasing Zero

INES NASTALI



In her first book, consultant Kat Janowicz sets out to chronicle the story of “how the busiest US ports cut pollution, reshaped industries and influenced geopolitics in the ongoing quest for clean air”. This quest was kicked off back in 2002 when a lawsuit against the Port of Los Angeles (LA) and one of its terminal operators forced the port to pay \$50 million for mitigation, as well as prepare a dedicated environmental impact assessment for the phased build of a new terminal, which it completed in 2008 under the leadership of Geraldine Knatz. Nowadays a port project will not start without one.

Janowicz said her book is necessary as “official documents told the technical tale, but there didn’t seem to be a single source that told the story of what happened and why”. She added, “That’s when the light bulb went on. There was no single source because the story is so complex. Yet, there was a need to tell it because what has been

happening at the San Pedro Bay ports can help other industries and communities, like my hometown in Poland.” She refers to the Port of Szczecin-Świnoujście.

The release of the book in August 2023 and discussions around it are well-timed as the Port of LA still faced legal battles around the topic a decade later. In 2022, a court found that the port failed, “over many years to adopt a negotiating position with China Shipping, which places compliance with California environmental law and the health of harbor workers and residents ahead of, or at least on equal footing with, its desire to appease its largest tenant”.

With this background knowledge, I started to read the book with apprehension. Given the author’s affiliation with the port through her consultancy work, how objective can this report be?

Wading further through the history of aforementioned court proceedings, surprising collaborations between the competing

ports of LA and Long Beach, feuds within the local city councils and with environmental organizations, local citizens, as well as terminal operators, Janowicz managed to objectively untangle the complex developments to fortify clean air policies since the landmark ruling in 2002.

One learning: while there was a lot of initiative shown by the ports to clean up their act, so did the Californian government, which then left the ports to put into action what a federal law demanded – and that sometimes without having jurisdiction.

The book, sometimes overwhelmingly, goes much further, to the beginnings of rail and road transport to the future of deep-sea mining and resource procurement for the decarbonization technology of tomorrow.

Janowicz concluded that “*Chasing Zero* is daunting, and success is not guaranteed. What’s exciting is the journey – the opportunities to make a difference along the way are endless.” ■

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