

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

Stunted growth

Katharine Palmer, UN Climate Champions' shipping lead, warns of costly consequences if maritime fails to cultivate a knowledge-sharing culture



Official membership magazine of
iaph
international association
of ports and harbors

Unlocking the single window
Maritime's paper trail under scrutiny

More outlets needed
Limitations of onshore power coverage

Automated flagship goes live
Singapore's Tuas Port in operation



WORLD PORTS CONFERENCE 2023

#IAPH2023 SAVE THE DATE

31 Oct - 2 Nov, 2023

Abu Dhabi, United Arab Emirates

A world-class, in-person event in Abu Dhabi bringing together leading port stakeholders for learning, information sharing, networking and collaboration.

Sign up for updates: worldportsconference.com



Host Sponsor



Presented by



S&P Global

CONTENTS

EDITOR'S COMMENT & CONTRIBUTORS | 02

Don't let vanity guide your sustainable efforts

PERSPECTIVE METHANOL AS A FUEL | 08

The next in the series of alternative marine fuels

THE DEBATE THE POLL | 14

Political representation on port boards, yes or no?

IN NUMBERS ONSHORE POWER SUPPLY | 18

Looking at which ports offer electricity at berth

04 | IN CONVERSATION WITH KATHARINE PALMER

Maritime lacks a knowledge-sharing culture

10 | FEATURE DIGITAL TRADE

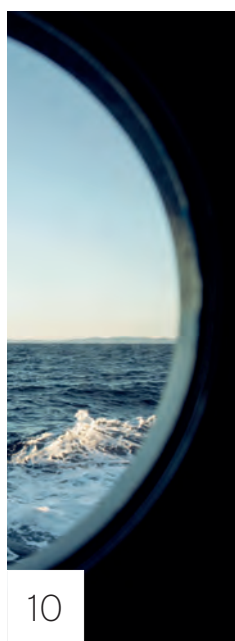
Making sense of the single window conundrum

16 | INTERVIEW CHRISTOPHER CROOKALL

The ship agent on efficient operations

21 | THE COLUMN PETER TIRSCHWELL

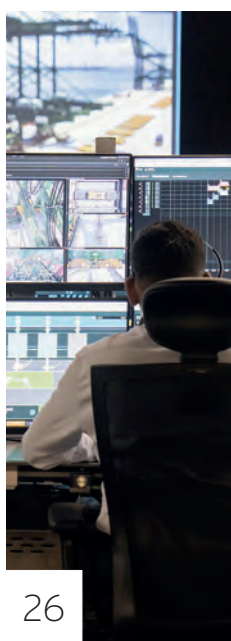
Commenting on this edition's debate question



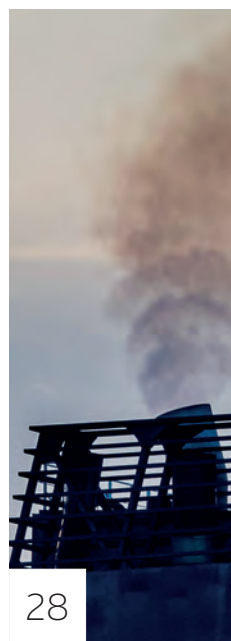
10



16



26



28



34

PROJECT FOCUS SAUDI ARABIA | 22

The desert state has great ambitions for its seaports

PERSPECTIVE DECARBONIZATION | 28

Maritime is set up for a Paris agreement overshoot

HOW TO ADDRESS CLIMATE CHANGE | 32

Turning coping with climate change into a business case

IAPH INFO | 38

News from your organization

26 | LOOK OUT TUAS PORT

Singapore's automated hub is open for business

30 | NINE TO FIVE STEPHANIE JONES STEBBINS

A day in the life of the Port of Seattle managing director

34 | VIEW FROM ASTERN THE RIVER THAMES

The vision of the Port of London Authority

40 | THE REVIEW THE PORT OF LOS ANGELES

A history of the US west coast port

PORTS & HARBORS

Published bi-monthly by the International Association of Ports and Harbors (IAPH), produced edited, and printed by S&P Global Market Intelligence.
ISSN: 0554-7555

PUBLISHER

MASAHIKO FURUICHI

IAPH secretary general
E: info@iaphworldports.org

PATRICK VERHOEVEN

IAPH managing director
E: patrick.verhoeven@iaphworldports.org

PRODUCTION

S&P Global Market Intelligence
5th floor Ropemaker Place,
25 Ropemaker Place, London,
EC2Y 9LY, UK
T: +44 (0)203 253 2100

EDITORIAL

INES NASTALI

Content management principal
E: Ines.Nastali@ihsmarkit.com

ADVERTISING AND EVENT SALES

JOHN KNOWLES

Sr sales executive - EMEA
E: John.Knowles@ihsmarkit.com

CONTENT EDITING

KERI DEEGAN

Content management director

CONTENT EDITORS

IRENE SOO

KHAI SHEN NG

NATALIA NGUI

REBECCA LYDIA VEGA

YOGES PALANIAPPAN

DESIGN

HANNAH KIDD

Associate director design

MATT RAMSDALE

Principal designer

DESIGNERS

PENNY TAGGART

WYMAN CHOO

PRODUCTION

KENLYN FLEARY

Production controller

EDITORIAL AND PUBLISHING MANAGEMENT

PETER TIRSCHWELL

VP editorial and publishing

KEN FREDMAN

Head of editorial, design, & publishing



When you have finished with this magazine please recycle it.

SUBSCRIPTIONS

INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

IAPH members enjoy a free subscription to P&H. If your organization is not a member and you would like a paying subscription to the magazine, please contact the IAPH for more information at:
7th Floor, South Tower,
New Pier Takeshiba
1-16-1 Kaigan, Minato-ku
Tokyo 105-0022, Japan
T: +81 (0) 3-5403-2770
F: +81 (0) 3-5403-7651
E: ph@iaphworldports.org
W: www.iaphworldports.org

COPYRIGHT

© 2022 BY S&P GLOBAL MARKET INTELLIGENCE LLC (AND ITS AFFILIATES AS APPLICABLE). ALL RIGHTS RESERVED.

No part of this publication may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or be stored in any retrieval system of any nature, without prior written permission of S&P Global Market Intelligence.

Any views or opinions expressed do not necessarily represent the views or opinions of the International Association of Ports and Harbors (IAPH), S&P Global Market Intelligence or their affiliates.

DISCLAIMER OF LIABILITY

Whilst every effort has been made to ensure the quality and accuracy of the information contained in this publication at the time of going to press, IAPH, S&P Global Market Intelligence, their affiliates, officers, employees and agents assume no responsibility as to the accuracy or completeness of and, to the extent permitted by law, shall not be liable for any errors or omissions or any loss, damage or expense incurred by reliance on information or any statement contained in this publication.

ADVERTISEMENTS

Advertisers are solely responsible for the content of the advertising material which they submit to us and for ensuring that the material complies with applicable laws. IAPH, S&P Global Market Intelligence and their affiliates are not responsible for any error, omission or inaccuracy in any advertisement and will not be liable for any damages arising from any use of products or services or any actions or omissions taken in reliance on information or any statement contained in advertising material. Inclusion of any advertisement is not intended to endorse any views expressed, nor products or services offered, nor the organisations sponsoring the advertisement.

THIRD-PARTY DETAILS AND WEBSITES

Any third-party details and websites are given for information and reference purposes only and IAPH, S&P Global Market Intelligence and their affiliates do not control, approve or endorse these third parties or third-party websites. Further, IAPH, S&P Global Market Intelligence and their affiliates do not control or guarantee the accuracy, relevance, availability, timeliness or completeness of the information contained on any third-party website. Inclusion of any third-party details or websites.

EDITOR'S COMMENT



INES NASTALI
Editor

Mirror, mirror on the wall...

CONTRIBUTORS



VLADISLAV VOROTNIKOV
Freelance journalist

The upcoming economic diversification heralds a new era for Saudi seaports. Harboring ambitious plans of becoming a new world's trade hub, the kingdom keeps liberalizing rules for foreign companies willing to invest in seaport infrastructure. This starts bearing fruits, and as the Vision 2030 program gains traction, a further rise in cargo flows and investments are anticipated, with at least one seaport on its own path to become a backbone of giant futuristic projects. ■

Feeling as if you are left out of something, be it in your personal life or at work, is not something anyone enjoys. However, there is a big difference between actively not being included in the planning of a project or event that you are leading — a clear sign of bullying — and deciding that you want to do your own project but find that no one is joining you — more of a sign that you might not be a team player.

This can take many forms, one of which is letting your ego get in the way of the team's goal. For example, a team mate who refuses to join your team, but replicates the project with the same message and gets upset that you do not join their effort, would rightly be criticized for diluting the power of the unified message. The context for my thoughts is emission reduction from the maritime transportation system, which requires the whole industry to band together if we are to achieve this goal.

I was reminded of this when talking to Patrick Verhoeven, the IAPH's managing director, and Katharine Palmer, the UN Climate Champions' shipping lead, for this edition's cover interview. Katharine voiced her concerns if the industry would finally develop a knowledge-sharing culture where results from research and development and trials in alternative fuels and decarbonization technologies are shared, regardless of whether they were successful or not, purely for scientific advancement.

Her observation of both the lack of transparency and collaboration in maritime, reminded me of a phenomenon that I have encountered a few times in this industry: a debilitating case of vanity.

While there is no doubt that those putting in the efforts and taking risks should be recognized, nobody will gain anything if we just come up with more and more projects with different names attached to them, which are more aimed at tying a high-value partner to one's company rather than reporting back tangible results.

I completely understand that companies must strive to gain a competitive edge over their rivals and organizations in a field of offerings. These individuals want to be the voice of their peers, but the industry is hard-pressed not to let vanity get in the way of ambitious plans that bring us nearer to a sustainable future and in alignment with the Paris Agreement.

Talk is important, but results matter more. In the end, you will not be judged by the test of time to see if you are the fairest one of all, but rather to see if you managed to turn your memorandum of understanding into actions. ■

@ ines.nastali@ihsmarkit.com @InesNastali



TONY SLINN
Freelance journalist

I was eight years old when the River Thames was declared biologically dead by the Natural History Museum in 1957. It took 60 years to bring it back to life, supporting a huge diversity of fish. But once again the river is threatened by sewage, rubbish, and increasingly, plastics. So, Thames Vision 2050's promise of a clean — not just cleaner — river struck a very personal chord. ■



CHARLIE BARTLETT
Freelance journalist

The slow progress made on digitizing documentation has almost nothing to do with fustiness or an unwillingness to innovate — it is the opposite. Everyone wants to get there first, but unless we are willing to work together, we will not get there at all. ■

IN CONVERSATION WITH KATHARINE PALMER

Championing collaboration

Katharine Palmer, UN Climate Champion' shipping lead, talked to IAPH managing director Patrick Verhoeven about the lack of cooperation in maritime that hinders the 5% alternative fuel goal for 2030

INES NASTALI



during the first weeks of November, heads of state, negotiators, activists, and other industry organizations will come together in the Egyptian city of Sharm el-Sheik for another round of climate discussions during the 2022

United Nations Climate Change Conference (COP27).

Sustainable transport will be one of the key themes during the week-long summit, which offers an opportunity to demonstrate what maritime can do to transition to zero-emission fuels.

An expert in this is Katharine Palmer, otherwise working in her role as Lloyds Register's (LR) global sustainability manager, who became the shipping lead in the UN Climate Change High Level Champions' team, just before COP26 in November 2021.

She has been seconded to the Climate Champions team through the LR Maritime Decarbonization Hub — a joint initiative between the LR Group and Lloyd's Register Foundation, created to help the maritime industry design, develop, and commercialize pathways to future fuels.

The Climate Champions have 2030 breakthrough targets, which for shipping is to have 5% zero-carbon shipping fuels by 2030. She works on this by "bringing the work of the nonstate actors and connecting it to the work of governments and to demonstrate that nonstate actors can raise the ambition within the government," she said to *P&H* in a conversation with IAPH managing director Patrick Verhoeven, and speaking as shipping's climate champion on the sidelines of the IMO-UNEP Norway Innovation Forum, held at the IMO headquarters in London in October.

"Nonstate actors play a significant role in achieving the Paris agreement, so that's not only down to governments," she added.

State of the union

During the forum, one of the discussions was on how to get lesser developed states involved in the process of





producing low-carbon fuels and connect them to the different projects that work on exactly this.

In order to help with this and answer the question on how maritime is doing against achieving the 5% goal so far, Katharine and consultancy firm UMAS, together with the University College London Shipping Team, published a progress report in September.

They found that progress was made in areas such as policy, financing, collaboration, and the demand for alternative fuels, in alignment with commitments needed. “The maritime ecosystem has evolved significantly in this space over a short period of time and there is this plethora of voluntary initiatives across different actors in the value chain,” said Katharine.

“We need to rapidly transform the shipping system and this is about a whole system change so it’s not this one particular approach that is going to drive this on its own. We have got initiatives around finance, chartering, around customers, and ports and collectively, we come together.”

“One thing I am able to do in my role is to bring these actors together. Individually, we are all adding significant value but it’s the collective action that has a bigger impact,” she added.

Working as a team

However, one thing she would like to see improve — contrary to the report’s findings — is the level of collaboration. “What I’ve observed is that collaboration is still not that open in the sector,” Katharine said to *P&H*.

“I think we need to become a little more open to sharing knowledge and lessons learned.”

“For example, many times you read a press release announcing a joint industry project but how many times do you see it coming back with: here’s what we’ve learned?”

The problem is that a lot of those joint initiatives have confidentiality and intellectual property clauses that make this much-needed knowledge sharing impossible.

“I’ve never seen anything gather momentum like the green corridor concept on the back of the Clydebank declaration and everyone is taking a different approach, which is great,” she said, citing examples such as collaboration between ports, or between a port and an exporting entity. “What I see needs to happen is how do these different corridor projects talk to each and ask each other ‘how are you addressing this and that?’” She added, “There is going to be some common challenges among those corridors; nobody

“Ports are pretty competitive”

PATRICK VERHOEVEN
Managing director, IAPH

is really going to have unique challenges,” she said.

Patrick knows where this problem stems from: competition. “Ports are pretty competitive. One announcement between two ports has been followed by another, so there is obviously competition — and there will also be between shipping lines.”

And there is the commercial reality as well. “Ports are striving to get shipping lines and cargo flows bound to them, that’s why we see those bigger ports keen to launch a corridor concept involving shipowners and cargo interests,” Patrick added.

How to connect

However, we have to be careful that this is not hindering the rapid development of alternative fuels that is needed, considering that we are still in the early stages of this transition. Fast forwarding into the future shows why this is so vital: after achieving the 5% goal, through the 2030s and 2040s, the industry then needs to rapidly scale volumes to be a zero-emission industry by 2050.

“It’s about the shape of this curve and what’s really critical is that in spring next year, the IMO has to finalize the review of the greenhouse gas strategy and within, not only the level of ambition but the interim targets of 2030 and 2040. So, the earlier we start this transition the better, and, it will be far more cost-effective for this sector,” Katharine explained.

“By 2030, we need this initial volume of zero-carbon maritime fuels. And this initial volume will be a long-run solution that we can scale. So, all these corridors will be testing different solutions, and that includes not just the technology but it’s also the business model that supports it,” she added.

Katharine foresees a conundrum. “When by 2030, if we have an idea of what works, we know what we can scale, but if we don’t share, we don’t know what works.”

Patrick, looking for a solution, wondered what this sharing platform can look like.

There are suggestions that the IMO could play a role here, with a submission by the World Shipping Council (WSC) made to the IMO Marine Environment Protection Committee (MEPC). The WSC discusses green shipping corridors in the regulatory context within its Pathways to Zero Carbon Shipping framework. In the submission, the WSCP calls to “develop an IMO Green Corridors Program as a means to introduce new fuels and technologies and as a practical and explicit vehicle for an equitable transition.” It further hopes that when “building on existing



Pictured: Katharine Palmer, UN Climate Champion for shipping, and Patrick Verhoeven, IAPH managing director, discuss collaboration on the sidelines of the IMO Innovation Forum in London.

initiatives, green corridors can be created to connect both developed and developing economies with the introduction of appropriate ships and fuel infrastructure serving specific routes with a graduated expansion.”

At the same time, Katharine suggests to not always look to international regulation to drive these developments. “Where we are within the transition, with its pilots, testing, and innovation, we don’t need policies for mass adoption at the moment. National and bilateral action can also drive action.”

Instead, what the climate champion for shipping is calling for is the need for a bit more transparency and a cultural shift toward knowledge sharing versus setting up a formal resource-intensive coordination body.

“Let’s just be a bit more transparent because at the end of the day, we want the same thing.”

Stating your case

The yearn for collaboration also needs to be weaved so that it connects the different transport sectors. Assuming that one of the fuel alternatives to come will be hydrogen-derived, the maritime industry is in for another kind of competition: that of resources. “Everyone will be competing over the same molecule,” Katharine predicted.

However, “shipping is a good first mover demand market,” she added.

With the volumes needed and the fact that “it’s not going to disappear,” the industry has a solid business case. But, it needs to make its demand clear.

“Shipping looks at itself as a hard-to-abate sector. It’s not. I believe with its interconnectedness across supply chain, land, sea, society, we can be a source of the solution. By decarbonizing shipping, countries get economic and industrial opportunities,” said Katharine.

She added that this brings decent work, social inclusion, and helps to build resilient cities and communities. Within this ecosystem, ports play a vital role.

“Ports can help decarbonize the shipping part of the supply chain,” said Katharine. “You have the potential to bring in the Southern Hemisphere for the production and export of these fuels but this requires infrastructure for bunkering but also for transport, which is the major opportunity for ports and shipping, getting it from where it’s produced to where it’s needed,” Patrick agreed.

Another shoutout to the need for collaboration as with the development of this infrastructure comes the question of how to ensure safe handling of the fuel. “If there is R&D

happening in this context, for example for ammonia, then this needs to be shared,” said Katharine.

Good news on this front, according to Patrick. “Our clean marine fuels working group is working on the toolbox for the safe bunkering of liquid hydrogen, ammonia, and methanol,” he said, adding that while this is on the bunkering side, the IAPH also works with the shipping industry on the transport side. The recent Clean Energy Marine Hubs Initiative with the International Chamber of Shipping is an example.

It will be a convening platform for public and private senior-level stakeholders from the ports, shipping, finance, and energy sectors across the energy-maritime value chain.

Within her role, Katharine can connect the different parts of the supply chain and make introductions but the collaboration needs to come from the industry. “You create change by having a tipping point and so there needs to be the full value chain involved from across the global north and south,” she said.

The zero-carbon transition therefore also brings in new players, the hydrogen producers for example, which are not traditionally set in the maritime industry. Time to welcome them with open arms. ■

“Let’s just be a bit more transparent”

KATHARINE PALMER
Shipping lead,
UN Climate Champions



PERSPECTIVE METHANOL AS A FUEL

Towards greener shipping

With the global shipping industry transitioning to lower-emission fuels, methanol has emerged as a leading alternative fuel. Safe, proven, practical, cleaner burning, cost effective, and already available in major ports around the world, the shipping industry is increasingly turning its attention to methanol with the number of methanol-powered vessels on the water expected to grow in the coming years.

One of the initial drivers for using methanol is its clean burning properties to meet increasingly stringent air quality emissions in the maritime sector. Compared to conventional marine fuels, methanol reduces emissions of sulfur oxides (SOx) and particulate matter (PM) by more than 95%, reduces nitrogen oxides (NOx) by up to 80%, and meets Tier III NOx standards without after treatment.

Today, most methanol is produced from natural gas and can reduce carbon dioxide (CO₂) emissions by up to 15% on a tank-to-wake basis, which current greenhouse

regulations are largely based on. With increasing commercial activity focused on producing methanol from renewable sources, which can be carbon neutral on a well-to-wake basis, this makes methanol a viable option for meeting both current and future greenhouse gas (GHG) emissions-reduction targets.

One of the unique and important qualities of methanol versus other alternative fuels is its liquidity under ambient conditions. This makes methanol easy to transport, store, and bunker using standard safety procedures that are similar to the well-established procedures for diesel. Thus, the cost of methanol vessels and land-based infrastructure to store and supply methanol is lower than other alternative fuels that require pressurization or cryogenics.

Methanol with a higher volumetric energy content than alternative fuels, such as ammonia or hydrogen, is a better choice for a wide range of vessel types and longer voyages, as it requires less frequent bunkering.

It is also available globally at over 100 ports and can be supplied through existing or easily repurposed landside storage or supply infrastructure. Methanol has a long history of safe handling; a recent safety study on alternative fuels by maritime coalition Together in Safety assessed methanol as the lowest-risk fuel compared to LNG, hydrogen, and ammonia. Furthermore, methanol is environmentally benign compared to other options as it dissolves in water and biodegrades rapidly.

Growing numbers

Methanol has been used as a marine fuel for over seven years and during this period, the IMO developed guidelines to support its safe use and streamline further adoption. Methanex and its subsidiary Waterfront Shipping (WFS), together with partners, have led the commercialization of methanol as a marine fuel since 2016 when WFS took delivery of its first methanol tanker. Since then, it has added new methanol vessels to its fleet



ABOUT THE AUTHOR

JASON CHESKO is the director of global market development and head of methanol marine fuels at Methanex. He has been with the company for more than 20 years and previously held roles within investor relations and corporate development. Chesko has a background in finance and is based in Vancouver, Canada.

and worked with engine partner MAN and others to refine the technology to the third generation for adoption by the shipping sector. WFS now has 17 dual-fuel, 50,000 DWT vessels in operation, which have accumulated more than 117,000 operating hours on methanol, and by next year, WFS will have 19 methanol vessels, representing about 60% of its total fleet.

Methanex also partnered with Stena, Wartsila, and others on the conversion of the *Stena Germanica* ferry to operate on methanol. The vessel, one of the world's largest ferries, has been operating in the Baltic Sea on methanol since 2015, powered by four Wartsila four-stroke methanol-compatible engines.

The momentum for methanol as a marine fuel continues to build. Today, about 20 methanol dual-fuel vessels are operating, mostly by WFS, and many of the world's largest shipping companies, including Maersk, CMA CGM, Proman Stena Bulk, and X-Press Feeders are demonstrating their commitment, announcing orders for new methanol dual-fuel vessels.

Methanex has also been involved in initiatives to support methanol bunkering. WFS has been bunkering methanol from most of its production sites such as Punta Arenas, Chile; Geismar, US; Trinidad & Tobago; and New Plymouth, New Zealand.

In 2021, WFS also demonstrated the

Pictured: Methanol synthesis in a port might be a view seen more often in future.

first-ever barge-to-ship methanol bunkering operation at the Port of Rotterdam. *Takaroa Sun* became the first methanol-powered ship to be fueled by a standard barge, proving that methanol is safe to ship, store, handle, and bunker using procedures similar to those for conventional marine fuels. WFS is demonstrating methanol bunkering in an increasing number of ports where there is existing methanol infrastructure, including Houston, US; Ulsan, Korea; and Taicang, mainland China, to date.

To support the commercialization of methanol across the marine sector, Methanex joined FASTWATER, a consortium of 14 organizations advancing the use of methanol in waterborne transportation. It recently launched a pilot boat demonstration in Sweden and a harbor tug demonstration in the Port of Antwerp-Bruges.

We are seeing a growing number of leading engine manufacturers, including Wartsila, Rolls-Royce/MTU, ABC, Caterpillar, and WinGD, committing to producing methanol engines with more shipping companies recognizing the advantages of methanol as a marine fuel. This will continue to propel the uptake of methanol-powered vessels across the maritime sector.

A fuel for today and the future

Looking ahead, Methanex is looking to produce methanol in other ways, including from renewable natural gas sourced from landfills, sewage plants, or animal manure farms or from biomass. When produced in these ways, methanol can be fully carbon neutral on a well-to-wake basis compared to conventional fuels.

In fact, Methanex's production site in Geismar, Louisiana, has been certified by the International Sustainability Carbon Certification to produce biomethanol from renewable natural gas and is capable of supplying carbon-neutral renewable methanol for the marine sector.

Methanex was also an early investor in Carbon Recycling International (CRI), which produces emethanol. CRI's first demonstration plant in Iceland produces renewable methanol from renewable hydrogen and recycled CO₂ from a geothermal power plant, reducing well-to-wake CO₂ by 90%, and CRI is now expanding its technology into other countries.

Presently, Methanex is completing a feasibility study for carbon capture, utilization, and storage at its North American production sites, which can materially reduce GHG at our production sites. This will result in a lower carbon fuel on a well-to-wake basis for marine fuel customers. ■





FEATURE DIGITAL TRADE

Stuck in the single window

P&H examines the strange anachronism of shipping's paper trail, and what is to be done to modernize it

CHARLIE BARTLETT

Occasionally an idea from technology, unavoidably imbued with its culture, crosses over into real life. Tech professionals operate on several assumptions, which certainly serve them well within their own sphere of influence. However, when they try to apply them to big steel machines, which stubbornly refuse to operate outside of their design parameters, a clash of civilizations ensues. Earlier this year, a company called Parallel Systems assumed, as Silicon Valley firms tend to do, that trains are old and therefore useless, and are in need of a single big magic trick to disrupt them. What they invented was a battery-powered freight cart, which, the company said, would revolutionize the way rail works, allowing 40 ft containers to be transported one at a time by two carts each. If it were actually implemented, though, it would eliminate economies of scale, halve utilization, and increase the points of failure from one per 200+ FEU, to two per 1 FEU.

To the tech brain, breaking down a collective enterprise like a single train pulling 100 containers for eight different customers into two trains moving one per customer just works. In their world, innovative thinking and individualist grit made Sergey Brin and Jeff Bezos into gods.

However, back in the world of rusty containers and spilled hydraulic oil, it is the entire systems and networks coming together, which make things work. A port, for example, is in search of incremental, trial-and-error efficiency gains — by Silicon Valley standards, agonizingly slow. This does not leave the maritime industry immune to its own silly solutions.

Absurdly, for example, people are still passing around bills of lading (B/Ls), as well as many other types of documents, on paper.

The bureaucracy is expanding

Earlier this year, a pan-maritime push to adopt electronic B/Ls (eB/Ls) gained new traction when the Digital Container Shipping Association (DCSA) teamed up with BIMCO, FIATA, the International Chamber of Commerce (ICC), and SWIFT to form the Future International Trade (FIT) Alliance. If only half the industry adopted eB/Ls, DCSA said, savings would be about US\$4 billion per year.

The technology is not the problem; in fact various shipping lines have already adopted eB/Ls. The biggest concern is interoperability.

“Interoperability between all actors of the trade and transport industry is the key foundation to enable smooth data exchange and to streamline the end-to-end shipping process,” said FIATA director general Dr Stephane Graber when the FIT Alliance was formed in February. “FIATA, as the owner of the only negotiable multimodal transport document, endorsed by UNCTAD and ICC, is convinced that an industry-wide effort to establish open-source, interoperable, technology-agnostic standards is essential to make digitalization of international trade a reality.”

Thomas Bagge, DCSA CEO, has described the ideal outcome of his project to be something akin to email, which is based on a single universal standard, and can be exchanged freely whether the user is on a Macintosh, Windows, or Linux. “If you have a shipment that is changing hands, you need to have technical interoperability,” he said to *PE&H* in a recent interview.

Unfortunately, this is where tech thinking starts to get in the way of progress. “If one party is sitting on GSBN, the Chinese blockchain consortium, shipping to a US consignee who uses Tradelens, there is a lack of technical interoperability. This will require both parties to use either GSBN or TradeLens,” Bagge added.

A September survey by developer CargoX uncovered the shipping industry’s concern. Some 45% of respondents reported interoperability challenges, such as “difficulties collaborating with other digitally forward companies due to them running their operations on disparate digital platforms and the inability of different digital networks to speak to each other”. And further, “As service providers follow their proprietary protocols and data standards, data remain siloed within organizations, even if they run digitally native workflow.”

“Competition is for losers”

The problem is that in software, good-natured competition is not an option. When developing a platform – for example, a software program or web portal for transferring eB/Ls securely within parties – margins are so low that getting only some market share is just not good enough; an idea best expressed by Peter Thiel, billionaire co-founder of PayPal and Palantir, who said “competition is for losers.

“If you want to create and capture lasting value, look to build a monopoly”

PETER THIEL

Co-founder, PayPal and Palantir



If you want to create and capture lasting value, look to build a monopoly.”

Readers might have noticed this strategy at play when Uber suddenly replaced all their local taxi firms. Despite squeezing out the competition – and reliably jacking up prices everywhere they have managed to do so – Uber still has yet to turn a profit, instead, frantically reinvesting its earnings to snatch up more market share.

The first company to create a single-window platform for securely transferring electronic documents between stakeholders in the maritime industry and gain sufficient critical mass in the process could become the platform, spanning all world trade.

However, as long as this paradigm remains, it is a waste of resources, even actively detrimental to the business model, for such developers to build in compatibility or interoperability with their competitors.

In May, the IMO set out a series of guidelines for a single window, which would bring an enormous number



of administrative processes under one roof – customs declarations, phytosanitary, container release. “Public authorities will have to combine or coordinate the electronic transmission of the data to ensure that information is submitted or provided only once and reused to the maximum extent possible,” the IMO said.

Collaboration between shipping lines, and to a wider extent the involvement of IMO, shows that preventing the forming of walled gardens is at least on the agenda. In 2021, MSC, Hapag-Lloyd, ONE, and all members of DCSA, adopted eB/Ls, signaling their intention to retain a single format.

Language barriers

Nevertheless, there is another barrier and this time it is of shipping’s own making. In short, countries, ships, and ports cannot decide between them how data should be measured, recorded, organized, and presented.

“A major issue is the harmonization of data standards where one country will vary in its demands, and even individual ports in a country, or a region of country, might ask for different input, making the captain’s job a night-

mare,” explained IAPH communications manager Victor Shieh. “Especially in Europe and Asia where the space between port calls is really short.”

Shipping has long sought to end hurry-up-and-wait at ports, and optimize port calls with faster and more efficient turnarounds by the terminal, as well as bunker suppliers, agents, customs, inspections, surveyors, and other attending services. However, Shieh said the lack of a single window stands in the way.

“If you add to this the lack of sophistication of data exchange systems onboard a typical vessel – only a tiny fraction of them have systems that allow for automatic electronic exchange of operational data with port vessel traffic management systems as well as administrative FAL data with authorities – the idea behind optimizing a port call is far from achievable right now,” he added.

Two of the biggest fish, the Ports of Singapore and Rotterdam, signed an agreement in August 2022 to set up a digital green corridor. This digital corridor will rationalize data standards between the two ports, allowing the exchange of electronic documentation and ultimately enabling port call optimizations and other benefits between the two major hub ports.

“We are pushing, together with IAPH but also other associations, shipping lines and associated industries to start committing ourselves to standardization organizations like the International Hydrographic Organization and to the IMO, for operational data, and give our input whenever we feel there is a gap or a need for additional standards,” Ben Van Scherpenzeel, Rotterdam director of Nautical Developments, Policy and Plans, said to *P&H*. “As a minimum, we have to be on the same non-technical standards. If we do not have these, then we may exchange data from one computer to another, but even then, we will not understand each other. So, we have to agree on what is a berth, what is an arrival time at the berth; if we cannot agree on such basic definitions, everything stops.

“A pitfall of shipping is that we think it is so old that all these definitions already exist. But we only recently started to identify a dataset for nautical data, a dataset for operational data, and a dataset for nautical standards. We are just about to implement those datasets as standards in between ports, such as in the digital corridor between Singapore and Rotterdam.

Although a matter primarily of terminology might seem an innocuous issue, data would need to be standardized across the industry to make the plan work – including many of the KPI metrics, which shipping lines and tech companies, use to differentiate themselves.

Once there is a standard for collecting and measuring performance data for ships and ports, and exchanging it between parties, what is to stop shipping gradually settling on a single, superior methodology for interrogating that data for insights – putting swathes of companies out of business?

The involvement of IMO in what is fundamentally a technological matter offers a clue as to the breadth of the problem. “The longer you wait to implement the international standards, the more painful it will be,” Van Scherpenzeel added. ■



For 25 years, I was a member of the board of the Port Authority of Antwerp. And for 12 years, until the end of 2018, I was the chairman of the board in my capacity as vice mayor of the City of Antwerp, and the City of Antwerp is the only shareholder of the port and the port authority.

So, I was a local politician appointed to the board.

First off, I would like to caveat something. I think the thesis, if politicians should be members of a port's board, is too general. It depends on which country you are in and what political regime you have there and also who is the shareholder of the port? Is it a national authority, a local authority, or a private company?

That makes all the difference. So, in a functioning democracy, I am in favor that, as is the case in most ports in Northwest Europe, the shareholder of the port authority is the local authority. In cities such as Antwerp, Hamburg, Rotterdam, but also elsewhere, I think it is good that local politicians, but not only, are members of the board.

This avoids a lot of conflict between the city and the port. I have seen many parts of the world where discussion is impossible. Sometimes those conflicts become very, very bitter, and the population



ends up turning itself against the presence of the port because there is no serious link with the local community.

On another note, during the pandemic for example, we were able to vaccinate seafarers early against COVID-19 in Antwerp and together with the Belgian Shipowners Association. I think this was due to there being more of an understanding within the port authority and the city on what needs the crews have as people who are to survive sometimes for months in very lonely circumstances.

In those cases, it would be wise to allow politicians of the local community and independent commissioners to take part in discussions to avoid any conflicts.

What is wrong is when politicians are only a member of the board of the port authority to be of service to their friends and clients. That is a risk, of course. In Antwerp, I saw the historical evolution. About 25-30 years ago, the port was only run by the city administration and it was giving out concessions, etc. This is when you have a real risk of political clientelism.

So, the best of all worlds is a mix of local politicians and independent commissioners. ■



THE DEBATE

Should there be a seat for political representatives
on the board of a publicly owned port?



RICHARD BALLANTYNE | OBE, chief executive, British Ports Association



It is not my role to judge ports and other international models but with a mix of port ownership types here in the United Kingdom, we have a lot of interest in board composition. There is a strong support for ports to adopt skills-based board member recruitment policies.

That said, it is down to any parent organization, whether the port is in private or public hands, to decide what system works best. You often find that shareholder companies nominate suitable skilled board members to represent their interests, but where there have been more challenges is when port users or local community representatives are engaged on boards.

This is political representation with a small 'p.' While ports should absolutely consider their stakeholder's views, having a user or other representative on a board can mean that other business activities can be neglected or ignored. This has, on occasions, led to discussions about issues such as port charges or development proposals being influenced in a way that may not be the most suitable option for the port itself. This would be fine if the users or representatives own the port, but this is not typically the case.



In terms of the principle of local or national politicians sitting on port boards, this can create challenges for certain operations. Understandably, politicians usually have different agendas to ports, with wider economic development or community remits. A port board member, I suggest, should be focused on the port and not outside influences, whereas politicians can have a wider calling. They can also come from different backgrounds with limited relevance to port or business activities.

Of course, if the port is deemed to be a local or national asset, funded and maintained by government or even if it takes a funding precept from a local authority, then having policy makers appointed to boards is understandable and often essential.

There have been, no doubt, some good examples of political involvement in ports and over the years probably some less-than-impressive businesspersons on port boards but in general skilled non-executive directors get the best out of their organizations. I would also stress that if a country has deemed it suitable, there is nothing wrong with public ownership in the maritime sphere but if you want ports to run like a business, use suitable businesspeople! ■

SIXTY

Readership results: Should there be a seat for political representatives on the board of a publicly owned port?

60%

40%

NOVEMBER/DECEMBER | GOVERNANCE

POLL RESULTS

Readers have – for the final time – decided. The majority of readers – amounting to 60% – said they would not like to see political representatives on the board of a publicly owned port.

They might fear that the port cannot maintain its independence. The chief executive of the British Ports Association, Richard Ballantyne, put it like this in our debate, “When ports are asked to act in a more commercial way, the balance between political pressures and business drivers can be conflicting. Politicians can also be, understandably, more swayed by stakeholder and staffing interests, which often is to be applauded but on certain occasions not always appropriate. However, I do accept that having political engagement at the highest level can be advantageous for a port and therefore I’d suggest a balance needs to be struck.”

A conclusion that his opponent, Marc van Peel, who chaired the Board of the Port of Antwerp for many years in his role as the city’s vice mayor, agrees to. “So, the best of all worlds is a mix of local politicians and independent commissioners.” ■

Note from the editor:

This is the final edition of our debate and poll section. Over the course of running it for two years, we noticed that this type of discourse is very much welcomed, but truly speaking out unfortunately is often hindered by company lines.

However, we want to have the difficult conversations and we welcome an open exchange of opinions. You will therefore find another type of outreach section from the January/February 2023 edition on in its place instead.



In a bid to reduce operational emissions, ship agency Inchcape looks to streamline its own usage and to ports for collaboration

INES NASTALI

The job of the port agent has not much changed in recent years but there is increased visibility to the role, Christopher Crookall, chief commercial officer at Inchcape Shipping Services, said to *P&H*.

With there also being a desire for increased cooperation between maritime stakeholders and ship agents, it is only pertinent to catch up with an experienced ship agency such as Inchcape, which can look back at 175 years of handling shipments and cargo for shipowners, managers, and charterers in ports.

"Port agency has traditionally not been a transparent business. It has been characterized by mistrust and confusion. The solution, and a major tenet of the company's strategy, is therefore to increase transparency for all stakeholders around the port agency process. We are trying to shine a light on what actually happens in ports by applying technology and a very rigid governance structure to provide transparency around the operational and financial processes," Crookall said.

With the company not being a technical one, there is only one way for Inchcape to go about this: with manpower. "We are only people. That is our single biggest asset — our only asset, and it will remain that way. But we are a physical network, with tentacles in the port to capture and validate a lot of information, which is difficult for people to do if they are not physically in the port. We are the eyes and ears for our customers on the ground," Crookall described.

Supercharged services

Within the remit of those eyes and ears is the drive for operational efficiency, decarbonization, and sustainability, and

Crookall expects ports to support this. "Through greater collaboration in the port and with stakeholders we see just-in-time arrival or — more appropriate — right-time of arrival as a low hanging fruit with tremendous potential in reducing CO₂ emissions," he said.

The chief commercial officer added that, "Data and technology need to be the mechanism to drive predictability, and collaboration between stakeholders will drive efficiency in the port, thereby reducing CO₂ emissions."

Looking to run its own efficient arrival service for customers, Inchcape rolled out an operating system, which in the next phase of its development will feature a local port agent module. "With this next phase, we will be

even better equipped to go out pro-actively to our customers and say, 'Hey, you have a port call scheduled here, based on our analysis we think if you take these actions, you'll be able to shorten the time or avoid delays or save cost.' Providing all that information in an actionable and timely way will enable all our customers to make better decisions," Crookall expects.

The company has also looked at its own operational efficiency, noting that, apart from agency operations, the five key services with the highest carbon impact are towage, hotels, taxis, launches, and waste management.

"We can use our hotel data, for example, to track the average CO₂ footprint of every crew member's stay. Small efficiency gains

such as offering electric taxis does not compromise competitive advantage, it actually helps to reduce operating costs. We will also be adding handling and logistics CO₂ tracking," Crookall said.

The ultimate goal here is to minimize the number of vehicles going to ships, saving emissions while again reducing opex.

Global experience

The notion to connect to the different parts of the maritime supply chain is something Crookall enjoys about his current role and those he had over the past years.

Before taking up this position in the UK, and working in the commercial and sales department of Inchcape with a stint

in Dubai, Crookall worked for a risk mitigation company that offers services to vessel owners in order to optimize insurance premiums.

Crookall also worked for Safmarine, a break bulk shipping company in South Africa that is now owned by

Maersk, as well as for

the parent company itself, being based out of Mozambique.

"Shipping is a global business and also a people business. I have always enjoyed the opportunity to learn from so many different customers and stakeholders all over the world. My experience across regions and from different sides of the business has given me the conviction that, despite the diversity in the industry, the need for transparency in the port will drive value for all," he said.

"As a leading global agent, we have the opportunity and, I would say, the duty to drive that transparency, provide meaningful insights and to continue to facilitate word trade as we have done for 175 years." Crookall concluded. ■

"We see just-in-time or – more appropriate – right-time of arrival has tremendous potential to reduce CO₂ emissions"

INTERVIEW CHRISTOPHER CROOKALL

Seeking a connection

From 2025, as stipulated by EU regulations, ports in Europe must offer onshore power facilities to ships calling at berth. *P&H* looks at which global ports already offer this service and what ship types come to use it

INES NASTALI

One of the means to reduce maritime emissions at berth is to offer onshore power systems (OPS) in ports to enable a ship to run onboard systems needed while in port by using electricity instead of fuel.

The European Union, via EU Directive 2014/94, has therefore decided that ports must offer OPS by 2025.

However, of the 43 countries that will need to offer this service, only 15 have the facilities, according to S&P Global Market Intelligence data. The directive targets both inland and seaports, with a priority on the TEN-T Core Network, which also includes non-EU countries bordering the union.

The regulation also stipulates that OPS should be installed only where it makes sense. According to the European Seaports Organization, this is where vessels spend sufficient time at berth, there are frequent users of a berth, and the berth is used enough to make it worth the – often publicly funded – investment, and where OPS can directly be integrated in the planning of a new berth.

Overall, according to S&P Global Market Intelligence data, mainland China has the most ports with OPS, followed by Norway, the United States, Canada, and Sweden. Globally, Asia is therefore the continent with the most installations, where apart from mainland China, ports in Hong Kong SAR, Sri Lanka, Taiwan, and Vietnam also have facilities.

The fitting vessel

Consequently, while installations on land are one piece of the puzzle – and having the infrastructure in place will convince more shipowners to invest in vessels that can plug in – ships are the other.

Onshore power facilities in global ports



- Onshore power supply port
- International boundary
- ⚠ Claim, dispute, estimate, or unilateral boundary
- 🛡 UN buffer zone
- ⋯ Joint development zone limits

© 2022 S&P Global. All rights reserved. Provided “as is”, without any warranty. This map is not to be reproduced or disseminated and is not to be used nor cited as evidence in connection with any territorial claim. S&P Global is impartial and not an authority on international boundaries which might be subject to unresolved claims by multiple jurisdictions.

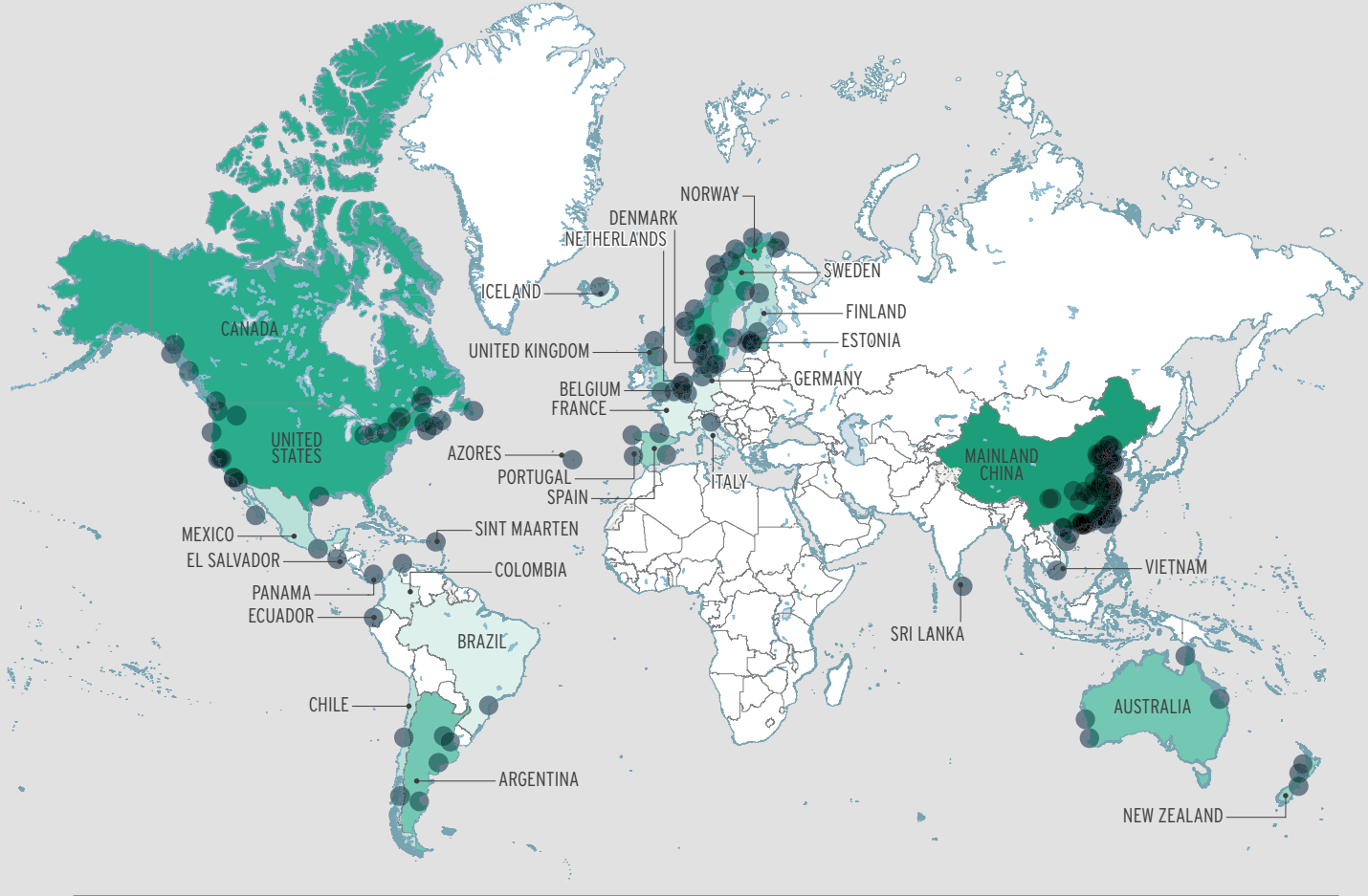
Source: S&P Global Ports & Terminals

Total number of vessels with onshore power capability in service and on order

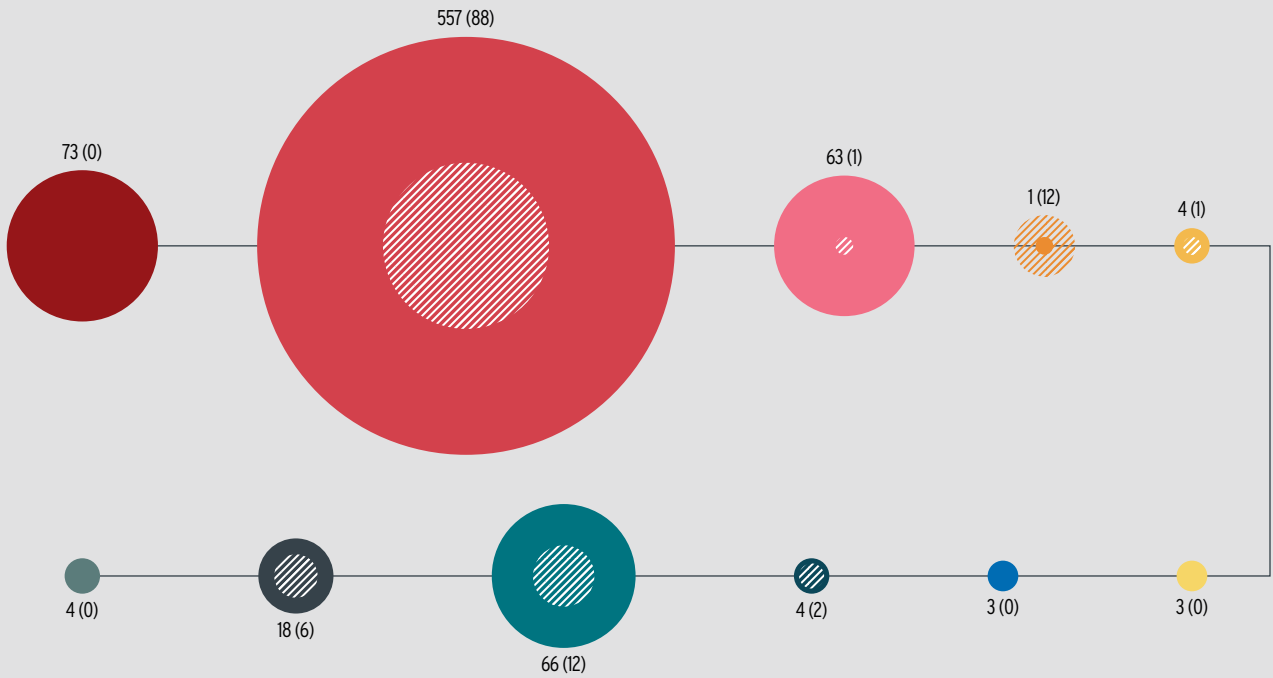
Vessels in service (vessel on order)

- Vessels in service
- ▨ Vessel on order
- Bulk carrier
- Container ship
- Cruise ship
- General cargo
- Inland
- Anchor handling tug supply vessel
- Platform supply vessel
- Car carrier
- Ro-pax
- Ro/ro
- Tanker

Source: S&P Global Market Intelligence



IN NUMBERS ONSHORE POWER SUPPLY



Ships with charging capabilities go back to those built in the 1980s. However, this does not mean those were frontrunners in their own right – the first onshore power facility in a port was installed in the Port of Gothenburg in Sweden in 2000 – but signifies that the ship was retrofitted with charging capabilities.

Krispen Atkinson, principal consultant at S&P Global Commodity Insights, knows why. “Those were US-flagged, Jones Act-compliant vessels, which were fitted to enable them to continue to operate in Californian terminals,” he said to *P&H*, adding that in 2014, Californian ports put a big surcharge on vessels that were not plug-in capable, which led to a retrofit rush in the years before.

The oldest vessels able to plug in were mostly ro-pax vessels, which were then overtaken by the retrofitting of container ships from 2000, following the uptake of OPS in ports in Europe, which makes it likely that those ships were launched with in-built charging capabilities.

To this date, container ships are the vessel type that potentially can plug in the most. With more than 500 vessels able to plug in, out of a total vessel number of more than 5,000, means that 10% of the world fleet is equipped to use onshore power.

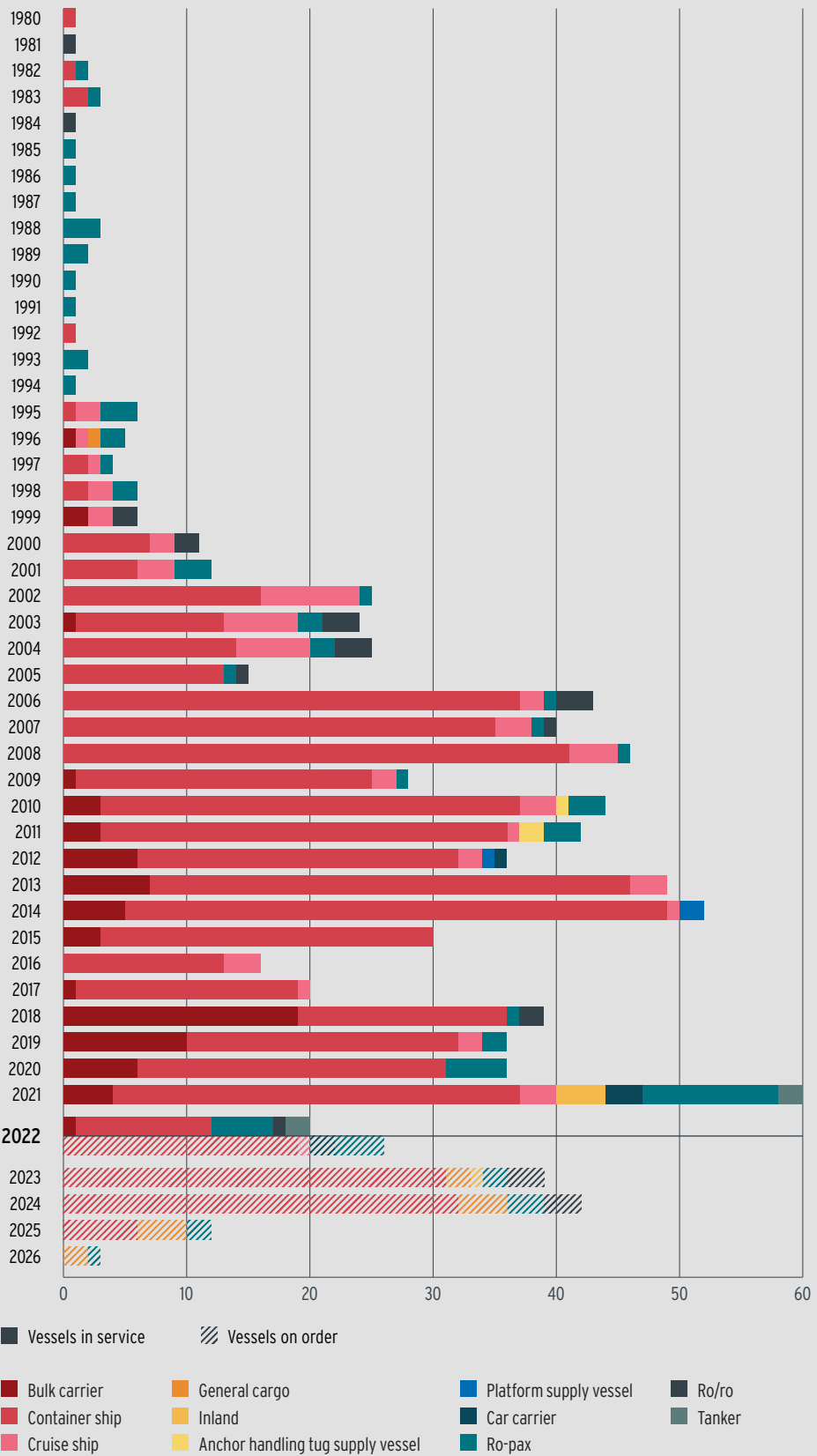
This is followed by cruise ships and ro-pax vessels with 10% and 2% of their respective fleet being able to plug in.

While in absolute terms bulk carriers score second-highest in installation numbers, because of the sheer number of bulk carriers in service, this only makes up 1% of the global fleet.

As for vessels on order, container ships lead again, followed by general cargo and ro-pax vessels.

In three years, when all of them are online, they should be able to plug in in European Union countries and their neighbours. ■

Vessels in service and on order with onshore power capability built 1980–2026



Source: S&P Global Market Intelligence



PETER TIRSCHWELL

Vice president, S&P
Global, Maritime, Trade
and Supply Chain

THE COLUMN

Offering governments a seat at the port table

The question was raised elsewhere in this issue as to whether government officials should serve on the boards of port authorities. It is not fundamentally a technical or legal question. The bigger question at the heart of this specific question is what are their vested interests in a port authority? The answer is that they have a fundamental interest. Why is it that while port authorities may concession out land for decades at a time, virtually always they retain possession of the underlying land? It is not because the land has value, and that value can be expected to appreciate. It is because when used as a working port, it creates an economic value that is of material significance when considering the entirety of the country.

Every port of significant size in the world has a similar story as the Port of Rotterdam, where a 2018 study showed that 6.2% of total added value of the Netherlands was created by the port itself, or the Georgia Ports Authority in the United States, where a 2019 study showed the Ports of Savannah and Brunswick to be responsible for 11% of the state's total sales and 8% of its GDP.

That is why, for example, the US Army Corps of Engineers regularly signs off on the economic viability of multibillion-dollar channel deepening projects, a precondition for projects to be approved.

Governmental interest in ports is therefore incontrovertible. However, as the experience of the pandemic at many ports has shown, it extends deeper into

port operations. The presence of an all-time record 109 container ships anchored or drifting outside of the Los Angeles–Long Beach (LA-LB) complex in January 2021 undermined the ports' ability to serve as a critical economic engine for California and the broader United States.

Yes, the vessels backup at LA-LB and other ports primarily in the United States can be

blamed on the pandemic-driven consumer buying spree, but the specific root cause reason for the backup was too many loaded and empty containers piling up on marine terminals, which led directly to lower productivity at the berth and ships forced to remain at berth for longer periods of time — resulting in ships being forced to

wait offshore. Given that the reason containers piled up was due to private sector activity — shipping contracts that allowed import containers to remain on the pier for free for days or weeks and empty containers being too slowly removed by ocean carriers — the imperative of a governmental role in ports cannot be denied. ■

“The bigger question is what are their vested interests in a port authority?”

ABOUT THE AUTHOR

PETER TIRSCHWELL is a vice president within the Maritime, Trade and Supply Chain division of S&P Global, publisher of The Journal of Commerce, JOC.com, PIERS maritime trade data, and JOC events such as TPM. In his expanded role, he is responsible for all editorial content appearing in Maritime, Trade and Supply Chain media and events.



PROJECT FOCUS SAUDI ARABIA

Building a desert miracle

Saudi Arabia is harboring mega-ambitious plans of expanding its seaport infrastructure, seeking to facilitate a transition toward a diversified and advanced economy as envisaged in the state development plan Saudi Vision 2030

VLADISLAV VOROTNIKOV

For decades, Saudi Arabia has primarily relied on oil and gas exports, which led the royal family to build the largest economy in the Middle East. However, under a comprehensive development program, Saudi Vision 2030, the country, in 2016, rolled out bold plans to diversify non-oil exports and increase its share in non-oil GDP from 16% to 50% in 2030 through a US\$266 billion investment. Under this plan, the share of the transport and logistics sector in the kingdom's GDP is projected to rise from the current 6% to 10% in 2030.

The country hopes to take advantage of its strategic location in the Middle East and become a logistics hub that connects Asia, Europe, and Africa, said Crown Prince Mohammed bin Salman, describing this as one of the key elements of future development.

"Our geographic position between key global waterways makes the Kingdom of Saudi Arabia an epicenter of trade and the gateway to the world," he said.

Pictured: Port city Jeddah.

Photo: Tengku Mohd Yusof/Alamy Stock Photo





Pictured: Port of Jeddah, Saudi Arabia, with its traffic control tower.

Photo: Getty Images/eugeneseergeev

During this decade, Saudi Arabia plans to invest US\$10 billion in expanding its seaport infrastructure with the ultimate goal of improving connectivity and attracting ultra-large vessels. This should ramp up cargo turnover in the largest seaports. In 2021, Saudi Arabia was ranked third by Lloyd's One Hundred Ports in volume handled. Three Saudi ports were featured in the last year's rankings: Jeddah Islamic Port (37th), King Abdullah Port (84th), and King Abdulaziz Port (93rd).

To spur the development of its seaports, Saudi authorities have leaned on the liberalization of the logistics sector. The government has recently withdrawn its requirement that ship agency services must be performed only by 100% Saudi-owned companies or by a Saudi national, except for those related to oil export and customs clearance. In addition, the government keeps pushing for privatization program in the port sector.

Eyeing private money

The Saudi seaport privatization campaign traces its roots back to the early 1990s when foreign investors were invited to conclude concession agreements with local market players. Agreements signed over the past several decades are set to expire in the next few years. Under the new rules, foreign shipping agencies have the right to operate independently at Saudi ports, not having to form joint ventures with Saudi market players like before.

Jason French, Group CEO of Gulf Stevedoring Contracting Company, a subsidiary of global port and logistics operator GulfTainer, said in early 2022 that there has never been a better time to invest in the Saudi seaports. In 2021, the company invested US\$50 million to expand operations at Jubail Commercial Port to boost its handling capacity to 1.8 million TEU. "We have proven that private investment can boost the Saudi ports sector, and we are keen to expand to

other ports in the kingdom," French said. "The ports sector in Saudi Arabia offers fantastic investment opportunities. With the right investment partners, it can truly become a launch pad for the region."

The new approach does not mean that the concession agreements and joint ventures will pass into oblivion. In early 2022, the Saudi Ports Authority, Mawani, in cooperation with the National Center for Privatization (NCP), published a list of public-private partnership projects for eight multipurpose terminal concessions and marine services across Saudi ports.

In total, 64 foreign companies were said to have expressed their interest in pumping investments in the port development infrastructure. These concessions are intended to provide several services related to handling general cargo, ro-ro, bulk, containers, and livestock, and are expected to be procured under a long-term public-private partnership agreement using the build, operate, and transfer mode, NCP said in a statement.

So far, Saudi Arabia is seemingly experiencing no problems in attracting foreign investors to fuel its development plans. In June 2022, DP World and Mawani inked a 30-year agreement to build a port-centric logistics park at Jeddah Islamic Port with an investment value of more than US\$133 million. Under the signed agreement, the established logistics park will span over 415,000 m², with an inland container depot capacity of approximately 250,000 TEU, and warehousing storage space of 100,000 m². Future expansions could increase the storage space to 200,000 m², the companies said in a statement.

The project is called to bolster "the development of a prosperous and sustainable maritime transportation ecosystem" that will support "the kingdom's socio-economic ambitions and consolidate its status as a global logistics hub." In April 2020, DP World signed a new concession agreement with Mawani to continue operating and managing the South Container Terminal at Jeddah Islamic Port for the next 30 years, committing to invest a total of more than US\$800 million in expanding and modernizing the terminal.

Charting new routes

Saudi Arabia runs 13 ports, six on the Red Sea, including Jazan, Jeddah Islamic Port, Rabigh, King Fahd Industrial Yanbu, Yanbu Commercial, and Duba, and seven on the Middle East Gulf. Those are Al-Khafji, Ras Al-Mishab, Ras Al-Khair, Jubail Commercial, King Fahd Industrial Jubail, Ras Tanura, and King Abdulaziz. The official statistical information indicated that they jointly handle 13% of the global trade, serving 70% of Saudi Arabia's imports and 95% of its exports. Since 2015, the kingdom also has a private port near Rabigh, King Abdullah Port.

The Saudi port development plans for the next several years stand on three main pillars, Mawani said. First, growth in seaport capacity is tightly linked to the realization of the National Industrial Development and Logistics Program, under which Saudi Arabia hopes to see a rise in industrial output, mining activity, energy, and logistics. The new seaports infrastructure is called to link these four sectors to each other and secure their access to the world's market.

Second, Mawani looks forward to expanding the role of the private sector by increasing the number of container terminals in the key seaports, and the King Abdullah Port is said to be the first example. The port expansion projects in the port that have been launched in the past several years already pay off. By April 2022, King Abdullah Port handled 2.81 million TEU with a growth rate of 30.6%, compared to 2.15 million TEU in 2020, official statistics showed.

Finally, Saudi Arabia hopes to expand the number of shipping lines and link them to other seaports in the Middle East and beyond. For instance, a tripartite link was recently established between the Jeddah Islamic Port, Jebel Ali Port in the United Arab Emirates, and the Port of Ain Sukhna in Egypt. Mawani said this trend would strengthen Saudi Arabia's role as the main linking point between East and West.

Over the past few years, the number of new shipping lines in the Saudi ports has steadily grown. In December 2021, Mawani announced a new direct shipping service connecting Saudi Arabia to Djibouti through container transport company Transmar in an important development that "serves to leverage the significant potential of the kingdom's ports, bolster its petrochemicals exports and transshipments, and further expand its maritime network around the globe."

Mawani CEO Omar al-Hariri said to the Saudi Press Agency in early 2022 that "Mawani has backed its new corporate strategy in a way that supports trade and economic development in the Kingdom of Saudi Arabia, noting that the attractiveness and status of Saudi ports have made Saudi Arabia the fifth-fastest country in the world in handling container ships."

Make it real

One Saudi port development project stands out: the northern Port of Duba, which is planned to be a part of the Neom city – a grandiose project worth US\$500 million.

In 2022, Neom, which is building the megacity and, in September was tasked with organizing the 2029 Asian Winter Games, took over the management of the Port of Duba. Mawani decided to transfer the management and operation of the port to Neom in August 2022, retaining only some services, including issuing regulations for the port along



with other ports in Saudi Arabia, licensing all port activities, collecting port fees, and supervising vessels using the port.

Neom will feature two parallel skyscrapers that stretch for 170-km long and 200-m wide from the Red Sea shore through the desert toward the mountains with a façade made of gigantic mirrors. According to the Saudi government, the structure will be entirely powered by renewable energy and will be designed as a sustainable alternative to traditional cities. Dubbed The Line, it will offer a new approach to urban design.

"The idea of layering city functions vertically while giving people the possibility of moving seamlessly in three dimensions – up, down, or across – is a concept referred to as zero-gravity urbanism. Different from tall buildings, this concept layers public parks and pedestrian areas, schools, homes, and places for work, so that one can move effortlessly to reach all daily needs within five minutes," the concept website stated.

Duba Port, launched in 1994, is located in that province and comprises 10 berths, with a total capacity of nearly 10 million metric tons per year. The concrete details of the future Duba Port development plans are not yet available, but the port is likely to be braced for significant expansion, as it would be required to serve the construction phase and then become the main gateway for the futuristic city of nine million people. ■





LOOKOUT TUAS PORT

Welcome to the future

Tuas Port in Singapore was officially opened on 1 September 2022. Ramping up capacity in four phases, at its targeted completion in the 2040s, the port will have an annual handling capacity of 65 million TEU, doubling its current throughput.

For now, operations at Tuas Port will include 21 deepwater berths that can handle 20 million TEU annually when fully operational in 2027. The first two berths started operations in December 2021 on schedule, and three more berths will start operations by December 2022.

“Our container port operator, PSA, is expecting to move over all its operations at Tanjong Pagar, Keppel, and Brani terminals to Tuas Port by 2027. Operations at Pasir Panjang Terminal will be consolidated at Tuas Port by 2040s,” the Maritime and Port Authority of Singapore (MPA) said in a statement.

Tuas Port is fully automated, which includes a vessel traffic management system to provide real-time situational awareness of shipping traffic and its digitalPORT@SG system to enhance efficiency of port operations and reduce the turnaround time of ships in port.

It also includes electrified automated yard cranes and guided vehicles for the transport of containers between the yard and the wharf, which will be managed remotely from the Tuas Port Control Center.

PSA will also deploy a private 5G network to speed up operations at Tuas and the current Pasir Panjang Terminal.

The operator aims for Tuas Port to be net zero by 2050. To reduce emissions by 50%, initiatives are under way, such as “using a smart grid management system and constructing green buildings. The Tuas Maintenance Base Administrative Building uses 58% less energy compared with other similar-sized buildings and is a net-zero development as it generates enough solar energy to offset its electricity consumption,” MPA explained.

Tuas Port’s phase-two reclamation works commenced in March 2018 and MPA completed all caisson fabrications in April 2022. It has also started planning for phase three. ■

Pictured: Workers at the control center of Tuas Port, operated by PSA in Singapore.

Photo: Ore Huiying/Bloomberg via Getty Images



PERSPECTIVE DECARBONIZATION

Shipping en route to Paris Agreement overshoot

Shipping is responsible for around 3% of global carbon emissions, according to the 4th IMO greenhouse gas (GHG) study. This share needs to be reduced, however, there are three major issues, among many others, which make shipping a hard-to-abate sector.

First, there is a large installed base of engines with single-fuel technology. Although single-fuel engines can be operated on net-zero fuels, such as certain biofuels, coupled with the limited availability, price level, and possible sustainability issues, it becomes an indirect challenge.

Second, adding to the fleet issue is the outlook to 60% growth in deadweight tons (dwt) by the mid-century, bringing the total fleet from 3.1 billion dwt in 2022 to an expected 5.1 billion dwt in 2050. While energy efficiency may increase, we can factor in

an expected increased energy demand of 50–60% in comparison to today.

Third, shipping is regulated by the IMO where agreements between member states are required to pass new regulation. Therefore, progress is slow but effective once passed.

These three issues – massive installed base, fleet sector growth, and calm regulatory tempo – pose a challenge in reducing shipping's carbon footprint.

However, the shipping market has already begun self-decarbonizing with more than half of the main engine technology contract being dual fuel in 2022 year to date.

However, a spray-and-pray behavior can only take us so far. Self-decarbonizing behavior is essentially a commercial bet at this stage. The market urgently needs regulation to set the frames and provide specific direc-

tion for decarbonization behavior to allow timely investments in test facilities at engine builders and shipyards, infrastructure at energy producers and ports, and to avoid shipowners having stranded assets.

Fuels matter

To meet the Paris Agreement goal of limiting global warming to preferably 1.5°C and achieve net-zero emissions by 2050, operating fleet on sustainable fuels is the most feasible and efficient way. The net-zero fuel dominating the market well into the 2030s will most likely be methanol, while ammonia will take over later once the technology has matured.

Whether the fuels are in fact net zero naturally depends on the method of production, and this is an important element in future regulation. It is crucial that future regulation of GHG emissions from shipping



ABOUT THE AUTHOR

ANDERS KRYGER is a principal strategist at MAN Energy Solutions. Based in Copenhagen, Denmark, he focuses on people, communication, and coaching. He has also authored research papers on strategy, organization, and change management.

is based on a well-to-wake approach that considers emissions throughout the life cycle of the fuel, rather than a tank-to-wake approach that only considers emissions out of the ship's funnel. The reason is simple: without considering the life cycle of marine fuels, there is a risk of pushing emissions upstream without any benefit to the climate, which is the whole reason for decarbonizing.

For example, ammonia can be net zero, but if it is produced with fossil energy, it may well have a higher carbon footprint than heavy fuel oil. So, we need to talk about the same thing when we are talking emissions, and that thing needs to be well-to-wake.

Carbon overshoot is problematic

The year shipping hits net-zero carbon emissions is directly dependent on the ambitions of regulators at the IMO. So, intermediate targets are equally as important as the target year because of the so-called overshoot. This indicates that shipping has an annual carbon footprint higher than the linear net-zero path from actual carbon emissions in 2008 to net zero in 2050. Carbon emissions should stay below this line but have not since 2008.

The large annual overshoot will only continue to grow until the sector is internationally regulated. This means that while net zero may be achieved by 2050, an intermediate overshoot seems to be unavoidable.

Pictured: A container ship belches out black smoke as the sky explodes with color as the sun rises behind drilling ships.

The implication is that when the target is reached, shipping as a sector will have emitted too much carbon to pay our contribution to limiting the temperature increase to a maximum of 1.5°C.

The waiting game

While some stakeholders in shipping have started taking actions, the sector as a whole is currently in a state of waiting, pending direction from the IMO. Regional initiatives, such as those from the European Union, may provide direction while we wait for IMO, but international regulation must be the end goal for shipping. When the direction is given from regulators, energy producers will have an idea of the energy demand and can plan and invest in the required production facilities to secure the supply. Ports will be able to establish bunkering facilities and the relevant infrastructure. Shipowners can adjust their portfolio that has effects on shipyards, engine builders, and technology providers.

We know the name of the game: getting to net zero. Until the method and sub-targets are known, we all try to optimize our own game. Currently, different market forces take charge of their own game and try to optimize and prepare for the future in the best possible way.

However, getting to net zero is not a game of solitaire. All the players depend on each other, and everyone is dependent on the game master.

While we are playing the waiting game, the best way forward is to listen to each other.

Several groundbreaking decarbonization initiatives are already in the making; technologies for new fuels, preparing for scalable retrofitting of the fleet, green corridors

enabling bunkering of new fuels on particular trade routes, and energy efficiency wins through digitalization measures, e.g., enhanced routing.

On our way to net zero, we need an elevated sense of urgency. We need the direction provided by international regulation, and we need it today. While implementing it, we need transparency and realism, but also optimism for the maritime energy transition. ■

“While we are playing the waiting game, the best way forward is to listen to each other”

ANDERS KRYGER
Principal strategist
MAN Energy Solutions



ABOUT THE AUTHOR

STEPHANIE JONES STEBBINS

is the managing director of the maritime division at the Port of Seattle, United States.

7:00



8:00



10:00



11:00



Nine to five

Having joined the Port of Seattle in 2017 as the managing director of the maritime division, Stephanie Jones Stebbins is a highly influential thought leader in the maritime industry focused on regional economic vitality, environmental sustainability, innovation, and equity. To manage a diversified operating division with more than 200 employees, Jones Stebbins works hard to stay connected with current issues. Prior to this role, she has held many positions over her 20-plus-year career at the port



As an executive team member with a demanding day, I start my day strong with my morning coffee before walking the family dog and dropping the kids off at school. I then meditate and exercise before leaving for the office on my bike, if the Seattle weather allows.








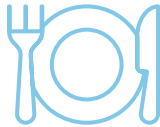
I begin my workday by checking emails and catching up with my chief of staff to determine my schedule and priorities for the day. The Port of Seattle is a complex organization with an airport and seaport and is run by five elected officials and a team of executives that manages different aspects of the organization. Full-executive team meetings are a valuable connection point to catch up with our executive director, receive staff briefings on projects or upcoming initiatives, and coordinate with my peers.



The maritime division is one of Seattle port's core strengths and a reliable source of jobs and economic activity for the region. Our business units include the cruise business, commercial fishing, recreational marinas, a grain terminal, and an in-house maintenance team. I meet regularly with my directors from each line of business and director partners in our environmental, finance, and portfolio divisions. I share any executive updates and each team member presents their issues of the day/week.



My calendar is regularly booked from the beginning of the day to the end, which can be challenging to stay up to date on important issues. During this hour, I will meet with my staff for briefings on a variety of priorities and hot topics. This could be reviewing green initiatives and/or quarterly financial performance, discussing upcoming budget priorities, or reviewing key items that will be presented to our five elected officials for approval.

 <p>Lunch break – if I have extra time during lunch, I will take a short walk, catch up on emails, and check in with my team. Lucky for me, the beautiful Centennial Park – owned and maintained by the Port of Seattle – is nearby.</p>	 <p>Our organization is led by five commissioners who are elected by the public. It is important to keep them informed on issues, initiatives, and projects that are happening within the organization. This requires regular briefings either individually or in a public forum during our bi-monthly commission meetings.</p>	 <p>In this hour I try to attend company-sponsored events such as our equity, diversity, and inclusion efforts, listen in to our human resources quarterly reports, attend physical staff meetings with frontline employees, or participate in board meetings on the two boards that I serve – Green Marine Board and Washington Maritime Blue board. Alternatively, this hour can be used for my weekly open office hours for staff to bring emerging issues, questions, or concerns to my attention.</p>	 <p>As a managing director, it is also imperative that I am connected to external stakeholders in all of our business lines. I meet with a variety of customers anywhere weekly, from cruise line executives to individual fishers from the fishing fleet, and community groups from our liveaboard community, or partners in large-scale green initiatives to other government entities.</p>	 <p>I have weekly meeting with my boss, the executive director, to review my current initiatives, strategic plans, and discuss latest issues in maritime.</p>	 <p>Typically, I head home around 5pm or 6pm to welcome the kids home from school and have dinner before wrapping up any emails from the day.</p>
12:00	13:00	14:00	15:00	16:00	17:00



ABOUT THE AUTHOR

HEATHER WHEATLEY is a senior research director in the chief supply chain officer enablement team at Gartner. Her research interests include supply chain risk strategy implementation and risk assurance.

How to

...address climate change
in the supply chain

Climate change is here, and it is affecting every region of the globe – and already most supply chains. Be it wildfires, floods, or droughts, environmental impacts are affecting our people as well as our networks. However, a recent Gartner survey found that only 18% have conducted climate change risk assessment and scenario planning – partly because the risk is not yet visible to the C-Suite.

That is why here are 10 steps to introduce climate change risk into the supply chain organization. ■

N°1



Create a sense of urgency

Climate change has been around for a while, yet organizations often struggle to see why they need to act right now. According to our research, 11% of companies do not even acknowledge that climate change is a risk to them, and many others acknowledge climate change, but cannot name the associated risks and what needs to be done to address them. Often, it will fall on supply chain leaders to be the canary in the goldmine and sound the alarm.

N°2



Translate climate change risk into business impact

One of the challenges of addressing climate change risk is that it is hard to translate the risk into business impact. It is important to make clear that climate change drives investment decisions. For example, in the United Kingdom, there are external reporting requirements on climate change adaptation. This will have a direct link on external investment. Are you able to demonstrate that you are working on this?

N°3



Encourage long-term thinking

Climate change is a long-term risk that requires long-term thinking. There is also increasing emphasis from the investment community that climate change response matters. For example, when planning for new infrastructure, design considerations should be made for future climate trends. If you are aware and address the issue right now, you are addressing the issue right now head on. For example, according to a 'Nature' article, an estimated US\$90 trillion worth of infrastructure will be needed in the next 15 years to build resilience to climate change. But consider this – the projected benefits are four times greater if you are aware and address the issue head on now.

N°4



Develop clear and understandable messaging

In our survey, 36% of supply chain organizations cited insufficient skills to understand a changing climate and 17% said that they had a lack of management understanding of climate change risks. That is why the messages must be clear and understandable. What do warming projections mean for sea levels, ports, and ultimately moving goods from A to B? Being able to simplify a complex topic is essential to get the right people on board.

N° 5



Engage cross-functional leaders

One single person cannot do it alone, not even one single function. The whole company must participate and engage. Make a list of horizontal and vertical stakeholders to engage and develop a strategy to grab their attention. Consider that finance will be interested in different information than logistics, manufacturing, or procurement.

N° 7



Assess risks ...

The risks of climate change can take many forms. There can be financial and operational risks, but also risks to the employees and communities a company is embedded in. Who will want to work in extreme heat, and what will people think of a company not committed to fighting the climate change that created those conditions? Will you still be able to sell what you are currently selling?

N° 8



... and opportunities of climate change

As dire as climate change appears to be, there are also opportunities for innovative companies. Maybe rising temperatures mean that a region can now grow certain crops or new products. Climate change could also force the closure of certain trade routes – and the opening of others.

N° 10



Adapt to what is coming

Delay is not an option when it comes to climate change risk. However, it is not all doom and gloom. With continued emphasis on mitigation and reducing emissions the impacts will be less. Those organizations that are planning into the future are likely to be more successful in the long term, and this is where everyone wants to be.

N° 6



Do scenario planning

Scenario planning is important because it provides projections of what might happen: plausible, coherent descriptions of possible future climate change. You can then map your ecosystem to understand the potential impacts of the risks you have identified.

N° 9



Develop responses on all levels

There are different kinds of responses to the identified risks and opportunities. Focused responses just protect our sites. Informed responses trigger actions concerning things such as product portfolio and ecosystem footprint. While those responses are important, transformative responses that impact the organizational strategy will be what carry a company through disruptive times.

Shaping the future

With the Port of London Authority introducing its Thames Vision 2050, an ambitious, multifaceted plan to transform the river, it is time to look back at the historic merchant use of the Thames

TONY SLINN

T

he Port of London Authority (PLA) Thames Vision 2050 is the latest phase in the river's history as a trading water going back to when a port was established by the Romans in the city of Londinium around 50 AD, long before London became a great city and England's capital.

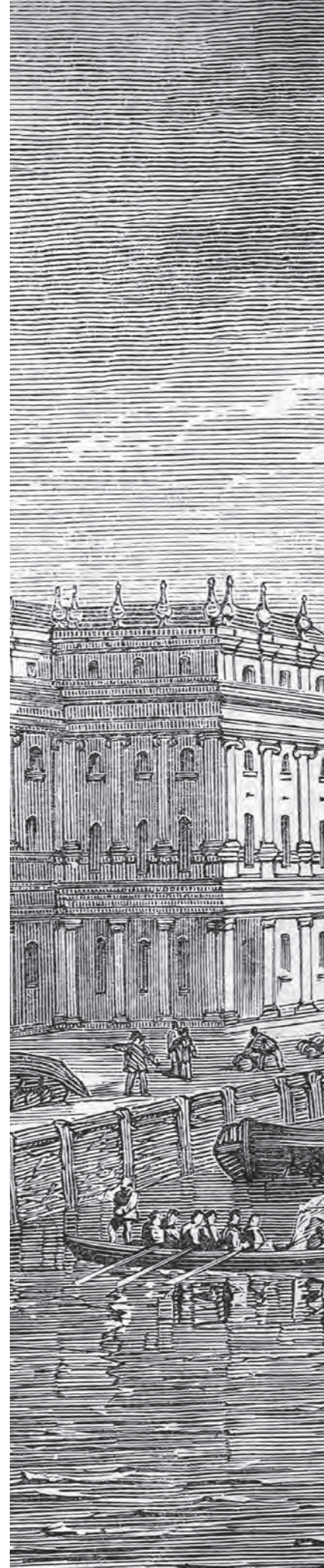
The city and port went on to become a major trading and ship-building center for the Saxons, Normans, and the Tudors. During Elizabeth I's reign, it became the world's most important trading port. That success demanded new infrastructure and in the 18th century, parliament authorized two new docks and a range of warehouses on the Isle of Dogs. In the 19th century, the East India Dock, Millwall Dock, and the Royal Albert Dock were added.

However, along with growth, chaos and congestion were rife as rival wharves, docks, and river users battled for business. By the late 1800s, it was clear an overall governing body was vital if the port was to hold onto its global position.

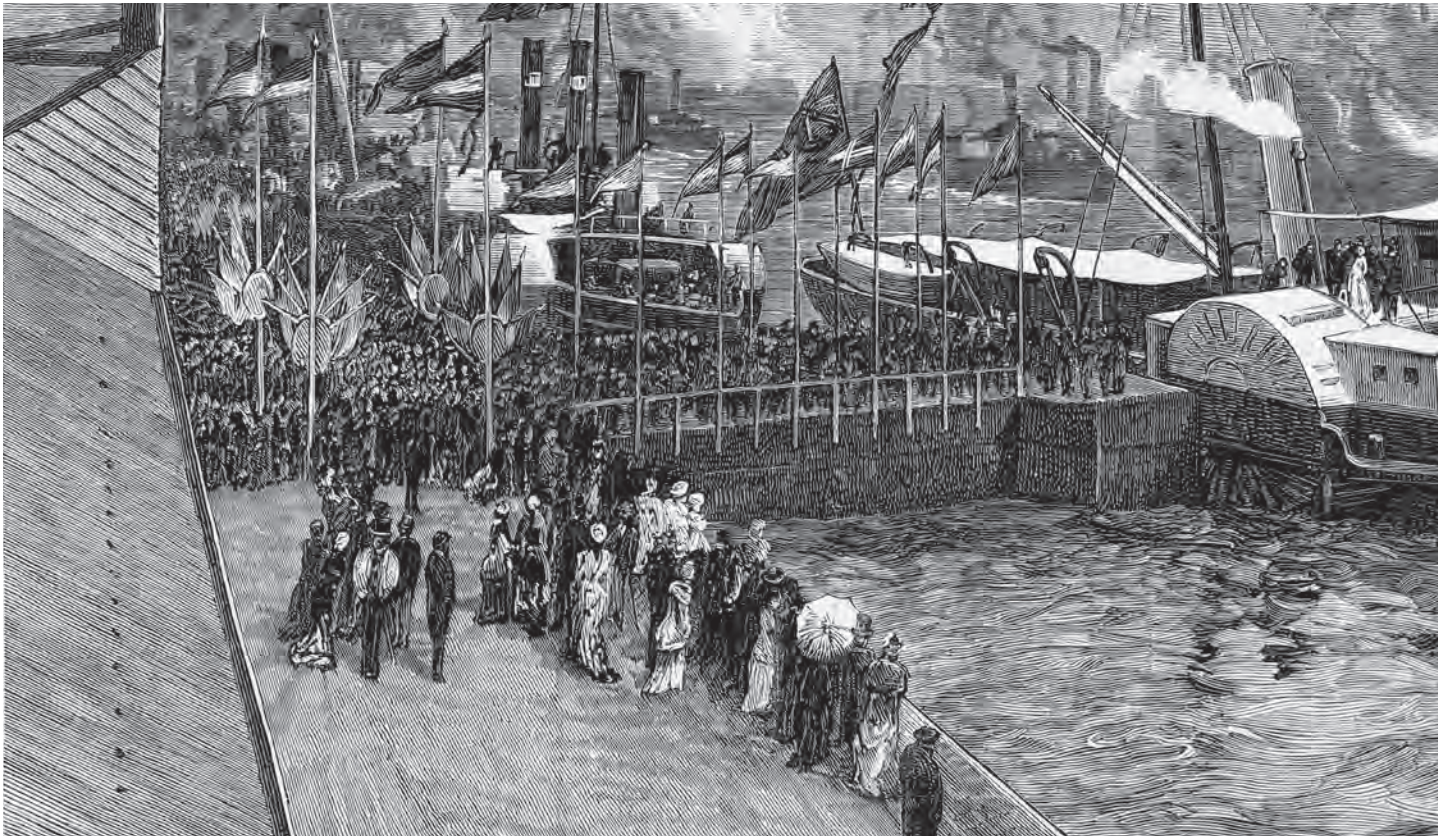
That took many years — the bill that brought the PLA into being was championed through parliament by Winston Churchill and received royal assent as the Port of London Act in December 1908; PLA took control of the port in March 1909. The new authority's responsibilities were huge: the 95 mi tidal Thames; obligation to provide quays, wharves, and warehouses; and the acquisitions of Surrey Commercial Dock Co, the London & India Dock Co, and the Millwall Dock Co for US\$26 million — about US\$1.7 billion today.

A turbulent 113 years followed: major strikes, devastating air raids during World War II, reconstruction that saw trade topping 55 million tonnes in 1964 and then the dramatic impact of containerization that led to the port's decline.

Pictured: Custom House, on the north bank of the Thames in the City of London.
Photo: Getty Images/RockingStock







Pictured: The opening of the Royal Albert Dock at Woolwich by the Duch and Duchess of Connaught in 1880. Photo: Getty Images/duncant1890

However, business, housing, educational, and leisure facilities have transformed the port and now it is time to once again shape its future.

Working hand in hand

"In our two-year consultation with Thames stakeholders, we've developed a plan that's ambitious, that we think is sustainable, and that has three core themes: the Trading Thames, Destination Thames, and Natural Thames," said PLA chairman Jonson Cox CBE, introducing Thames Vision 2050 to about 130 stakeholders, partners, and journalists gathered in London's new City Hall in the Docklands on 8 September, only hours before the capital was overshadowed by the news of the passing of Her Majesty Queen Elizabeth II.

Taking over, PLA CEO Robin Mortimer pointed out that as a trust port, it has no shareholders and operates for the benefit of customers and stakeholders now and in the future.

"The Thames is by far the busiest inland waterway in the country and needs to grow," he pointed out.

London's deputy mayor for transport Seb Dance added that "Thames Vision 2050 will remove more HGVs from

the roads as people turn to the river, reducing congestion and air pollution. Crucially, we need to act now to tackle the barriers in achieving these ambitions."

Tim Morris, UK Major Ports Group CEO, agreed. "The Thames is the UK's largest trading gateway. The vision looks to grow sustainable trading from 25% of the UK's networks, but always plays its role in transition to new zero."

London & Partners CEO Laura Citron said setting the bar high is vital. "The Thames is underused. Our commitment to the PLA is to bring the vision to life."

London Sustainable Development Commission chairman Ashok Sinha was fervent in his commitment to the vision. "It's absolutely right that the mayor of London looks to net zero and a 78% reduction by 2030. Adaptation and mitigation are what's needed to tackle climate change, to re-wild and create more biodiversity around the Thames and its estuary. A daydream? No!"

Other partners and stakeholders backing the vision include the UK government, the Greater London Authority (GLA), port and river businesses, local authorities, the Thames Estuary Growth Board, local

community and voluntary groups, and fellow regulators. Initial phases, between now and 2030, include the PLA working with those partners to continue investing, including in pilotage; dredge the main shipping channel; reactivate three safeguarded wharves and intensify use

"The Thames is underused. Our commitment to the PLA is to bring the vision to life"

LAURA CITRON
CEO, LONDON & PARTNERS



of already operational sites; lead development of the light freight market with new services established by 2025; and secure boatyard development at Albert Island, Newham, to be operational by 2024.

Furthermore, working with port and terminal operators, cargo-handling investments will include London Gateway Berth 4, slated to open in 2025, and will see phase one of Tilbury 3 operational by 2026. PLA looks to the National Highways agency to pursue construction of the Lower Thames Crossing; to Network Rail, the Department for Transport, and port operators to secure additional rail freight infrastructure from 2024 to 2029; and to Transport for London, the Thames Estuary Growth Board, and pier owners to develop and implement pier adaptation plans to support light freight development starting 2023.

PLA also wants to publish an improved foreshore access guidance program by the end of 2023 and commission and publish a business and public benefit study for electric ferry river crossings in the same year.

Cohesive effort

The authority expects vessel operators, riverside property developers, the GLA, and Transport for London to expand passenger piers, routes, and the network and agree a target number for new piers by end 2022. In addition, it is looking to London & Partners, GLA, key Thames boroughs, river operators, and the Thames Estuary Growth Board to develop and stage a major Thames maritime event to draw people to the river and attract investment.

Three Thames plans

The Port of London Authority (PLA) has laid out three different focus areas that together make up its Thames Vision 2050, as summarized by PLA CEO Robin Mortimer:

- **Trading Thames** – “To be the country’s largest and most competitive port, producing net-zero emissions. We’re closest to the UK’s biggest market, but need improved connectivity to road and rail infrastructure and be innovative technologically, expanding the transportation of light freight into central London as urban logistics transform.”
- **Destination Thames** – “A place to live, visit, play, and enjoy that’s accessible to all, a national and international icon for the city and the country. More visitors from diverse backgrounds enjoying sport and leisure opportunities, and drawn to the river as the best way to enjoy London, the Thames Estuary, and the many cultural attractions.”
- **Natural Thames** – “A clean river, free of sewage, plastics, waste, and other pollution – and I mean clean, not just cleaner, supporting greater biodiversity and recreational use.”

That will happen in 2025 to coincide with the Tideway Tunnel opening — a 25 km super sewer under the Thames to intercept spills and help clean up the river.

PLA will also work with London Sport, Active Essex, Active Kent & Medway, the Canal & River Trust, Thames Path National Trail, and others to deliver a sports participation program, secure a new riverside multi-sport location by 2025, and deliver five new Thames-based walks by end 2023.

Lastly, it will stop all sewage waste from commercial passenger vessels into the river by 2024 and facilitate access to environmental data in relation to vessel emissions, biodiversity, and foreshore litter by the end of 2023.

PLA is tasking Ofwat, the Environment Agency, Thames Water, Thames21, and other civil society groups to press for further reductions in untreated sewage releases. To cut litter and increase the amount of foreshore in good condition, PLA is working with Thames21 and other community groups, while to slash the flow of plastics, microplastics, and nonbiodegradables it looks to the Thames Litter Forum, Keep Britain Tidy, and, again, Thames21.

PLA also has a raft of plans under the five action priorities logged for each of the three core themes, not least developing a Thames masterplan by end 2023.

Mortimer concluded his explanations by emphasizing the team effort needed to turn this vision into reality, “It’s easy to publish strategies and targets, but it’s a lot more difficult to deliver. We’re currently committing our time and financial resources to the core themes and if you’ve got a project to help with it, come talk to us.” ■

Membership notes

Welcome to new members:

Associate members

Mitsui E&S Machinery

- 📍 Japan
- 📞 +81 33 544 3904
- ✉ isezaki@mes.co.jp
- 🌐 www.mes.co.jp/english
- 👤 Ichiro Tanaka, president

Development Bank of Southern Africa

- 📍 South Africa
- 📞 +27 11 313 3444
- ✉ viloshn@dbsa.org
- 🌐 www.dbsa.org
- 👤 Patrick Dlamini, CEO

NextPort vCoE

- 📍 Australia
- 📞 +61 48 429 7686
- ✉ axhalabi@nextport.com.co
- 🌐 www.nextport.com.co
- 👤 Ana X Halabi-Echeverry, chair and public officer

ISF Institute of Research and Education

- 📍 India
- 📞 +81 07 010 6705 56
- ✉ yogyatakapor@isfgroup.in
- 🌐 www.iire.in
- 👤 Yogyata Kapoor, director

The latest update on the Environmental Ship Index

As of October 2022, 6,896 vessels have been registered with the Environmental Ship Index (ESI). This is 15 fewer ships compared with the last update from July 2022.

Most of those ships scored high between 40 and 50 points. In the below infographic, the vessels that score above 20 points have been visualized. With 4,762 vessels, this makes up the majority.

The ESI identifies seagoing ships that perform better in reducing air emissions than required by the current IMO emission standards. It evaluates the amount of nitrogen oxide and sulfur oxide that are released by a ship and includes a reporting scheme on the greenhouse gas emissions of the ship.

All stakeholders in maritime transport can use the ESI to improve their environmental

performance and as an instrument to reach sustainability goals. The ESI has become the standard tool used by the world's ports to reward and incentivize shipowners that meet and exceed IMO emissions standards.

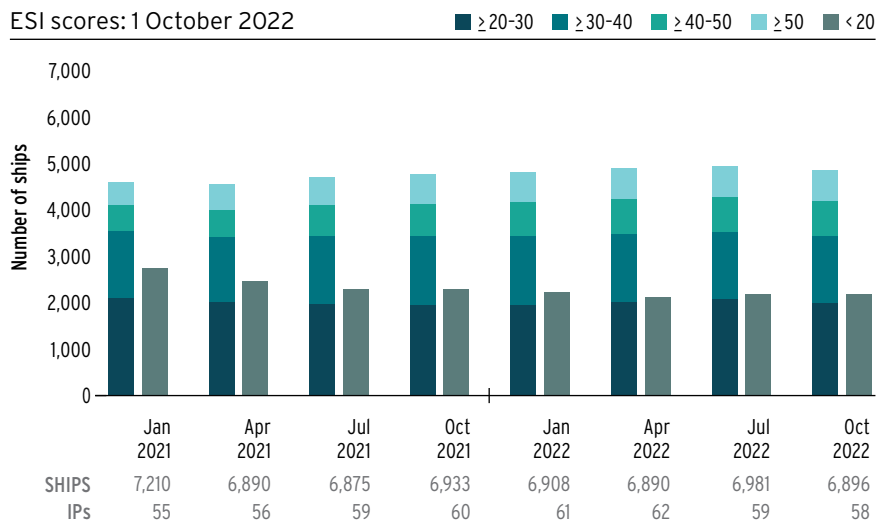
Recently, the ports of Stockholm in Sweden, de Suape in Brazil, and Kolding in Denmark have signed on to become incentive providers, bringing the total ports that offer ship performance-based port dues to more than 50.

If your port has yet to participate in the ESI, learn more about the incentive program on the dedicated ESI website or contact the Green Awards team, which works with the IAPH on the scheme. ■

🌐 [Environmentalshipindex.org](https://www.environmentalshipindex.org)

✉ admin@environmentalshipindex.org

ESI scores: 1 October 2022



Note: Stacked bars show ESI scores above 20 points, single bar shows ESI score below 20 points

Source: IAPH | © 2022 by S&P Global Market Intelligence

EVENTS TIMELINE 2022-23

3

NOVEMBER

IAPH Data Collaboration Committee
Microsoft Teams meeting
🌐 www.iaphworldports.org

10

NOVEMBER

IAPH Climate and Energy Committee
Microsoft Teams meeting
🌐 www.iaphworldports.org

15

NOVEMBER (15-17)

Smart Ports – Piers of the Future 2022
Digitalization in ports conference
taking place in Barcelona
🌐 www.smartports.tv



The IAPH's communications manager, Victor Shieh talks *Ports & Harbors* through the association's newly published infrastructure report 'Closing the gaps'

Q&A

VICTOR SHIEH
Communications manager, IAPH

Q: Talk us through the process of creating the 'Closing the gaps' report

A: It was quite a journey. We needed to do our research first, which was done with the help of a report produced by The University of Antwerp for the World Bank on maritime connectivity study for the World Bank: the state of developing country ports and maritime services – a global review, which we used as basis for the process.

We took the six main themes of the report, namely connectivity and accessibility, efficiency, carbon emissions, shipping costs, decarbonization, and regulation and formulated eight regional reports that covered the world, supplementing the information in the report with our own internal as well as external resources.

We then delivered those to 85 executives from 35 countries including shippers, forwarders, container carriers, shipowners, non-vessel operating common carriers, shipping agencies, digital innovators, terminal operators, port authorities, consultants, real estate experts, leading maritime academics, and experts from financing institutions.

Then, chaired by ourselves, maritime media and experts from our project partners at the World Bank went about defining the gaps and how to close them in eight intense, two-and-a-half-hour open sessions online under the Chatham House rule. Some of our S&P colleagues hosted us throughout the night with the time differences.

Those outputs resulted in eight regional summaries, which were presented and discussed at six separate regional breakfast sessions chaired by our regional vice presidents at the IAPH 2022 World Ports Conference in Vancouver last May. Those findings plus key content from the conference plenaries, panel sessions, interviews, and keynotes, which all centered

around 'Closing the gaps', were summarized in the final report. So, it really is a report by the industry for the industry.

Q: What are your top three takeaways from the report?

A: The top one – and there is only one – is the need for more of these open dialogue and honest interaction between the different players in the maritime supply chain. Not that this does not exist but there is not enough of it. To solve the supply chain crunch, reduce emissions, improve resilience, and accelerate digitalization, will require people to step out of their silos and see the other person's side of the story. We saw that happen with the #CloseTheGaps process – it now needs to be matched by action. That is what #IAPH2023 is going to be all about.

Q: What type of collaboration would you like to see more of to close the gaps in maritime infrastructure?

A: We are going to see more of that in the coming months. We have already produced a "how to" guide for ports, looking to integrate innovation in their ports' business, with toolkits for the safe bunkering of the new fuels/audit and port readiness guidance for ports and a set of base guidelines for ports looking to improve their own resilience to whatever crisis gets thrown at them next. We have enough recommendations in the report for the next three-to-five years.

Q: How do you want people to use the report?

A: Well, the World Bank will use the report as a base for updating its well-known port reform toolkit in conjunction with IAPH. Some of the people who met each other during the workshops have already started addressing the issues raised, together. That is heartening. We hope it inspires similar actions.

Q: How will the report shape the IAPH's messaging in 2023?

A: Our own publication, *Ports & Harbors* will have its own CloseTheGaps section for a start where we will give engineering and procurement companies the chance to provide feedback on how they work with ports and what ports need to do now to prepare for a changing infrastructure landscape. So, everywhere I would say. As the dude said in *The Big Lebowski* about his rug: it ties the whole room together. ■

IAPH INFO

Photo: Victor Shieh

5

DECEMBER (5-9)

IMO GHG Intersessional
Meeting to discuss
maritime emissions regulation
🌐 www.imo.org

12

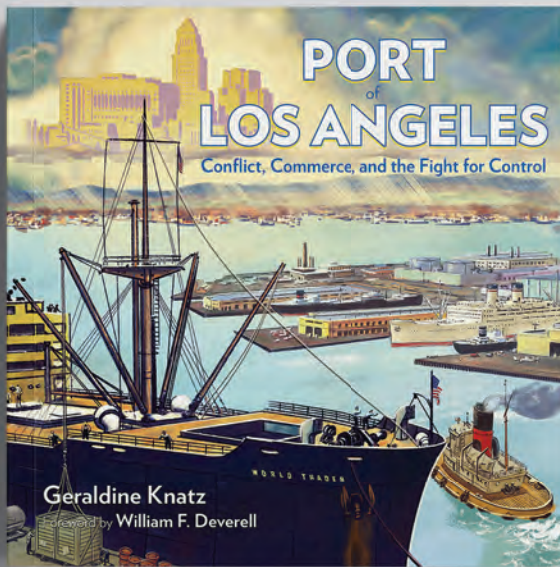
DECEMBER (12-16)

IMO MEPC 79
Meeting to discuss
maritime emissions regulation
🌐 www.imo.org

18

JANUARY (18-19)

IMO-IAPH-BIMCO single-window concept
A hybrid conference to discuss
digital trade data exchange
🌐 www.imo.org



BOOK AUTHOR

GERALDINE KNATZ is a maritime expert and author. She was the first female port director of the Port of Los Angeles from 2006 to 2014. She is a professor of practice at the University of Southern California.

THE REVIEW

Port of Los Angeles: Conflict, Commerce, and the Fight for Control

PATRICK VERHOEVEN



P

ort directors who dive into the history of their port are rather exceptional. With her book *Port of Los Angeles: Conflict, Commerce, and the Fight for Control* Geraldine Knatz joins illustrious port director-historians such as Fernand Suykens (Port of Antwerp) and Antonella Caroli (Port of Trieste).

In her foreword, Knatz mentioned that having worked in the position of port executive, she brings more perspective than most historians might have. That is certainly true.

I would similarly argue that port executives who take an interest in the history of their port bring more perspective than colleagues who do not.

History provides eye-openers for the future; whether it is port expansion, labor relations or energy transition, most ports have been there before.

Knatz's history of the Port of Los Angeles runs from the late 19th century until the 1970s. It was an era dominated by an

untamed engineering culture. California was one of the frontrunners in introducing environmental laws that ended this era.

It is telling that Knatz holds a doctorate degree in biological science and that, prior to directing the Port of Los Angeles, she led several environmental initiatives during her tenure as managing director of the Port of Long Beach.

Merging the Ports of Los Angeles and Long Beach is a recurring theme in this richly illustrated book. While there is no physical distance between these ports, all attempts to merge them failed so far.

The subtitle of the book already explains why: conflict, commerce, and the fight for control. Politics seem to have prevailed, as Knatz writes that – certainly in the initial decades – nobody expected the Port of Los Angeles to be run like a business and make a profit. Not to mention the darker pages of corruption and graft that marked the post-war era as well.

Being a former president of IAPH, Knatz also devotes attention to the history of our organization, in which the Port of Los Angeles played a significant role. In the wake of the 1951 US-Japan peace treaty, Japanese officials pushed renewed post-war ties with a bold idea to host an international port conference in Kobe.

Global reactions were lukewarm at first, until the Port of Los Angeles representatives threw their weight behind the idea. The second conference was held at the Hollywood Roosevelt Hotel in 1955, where IAPH was officially born.

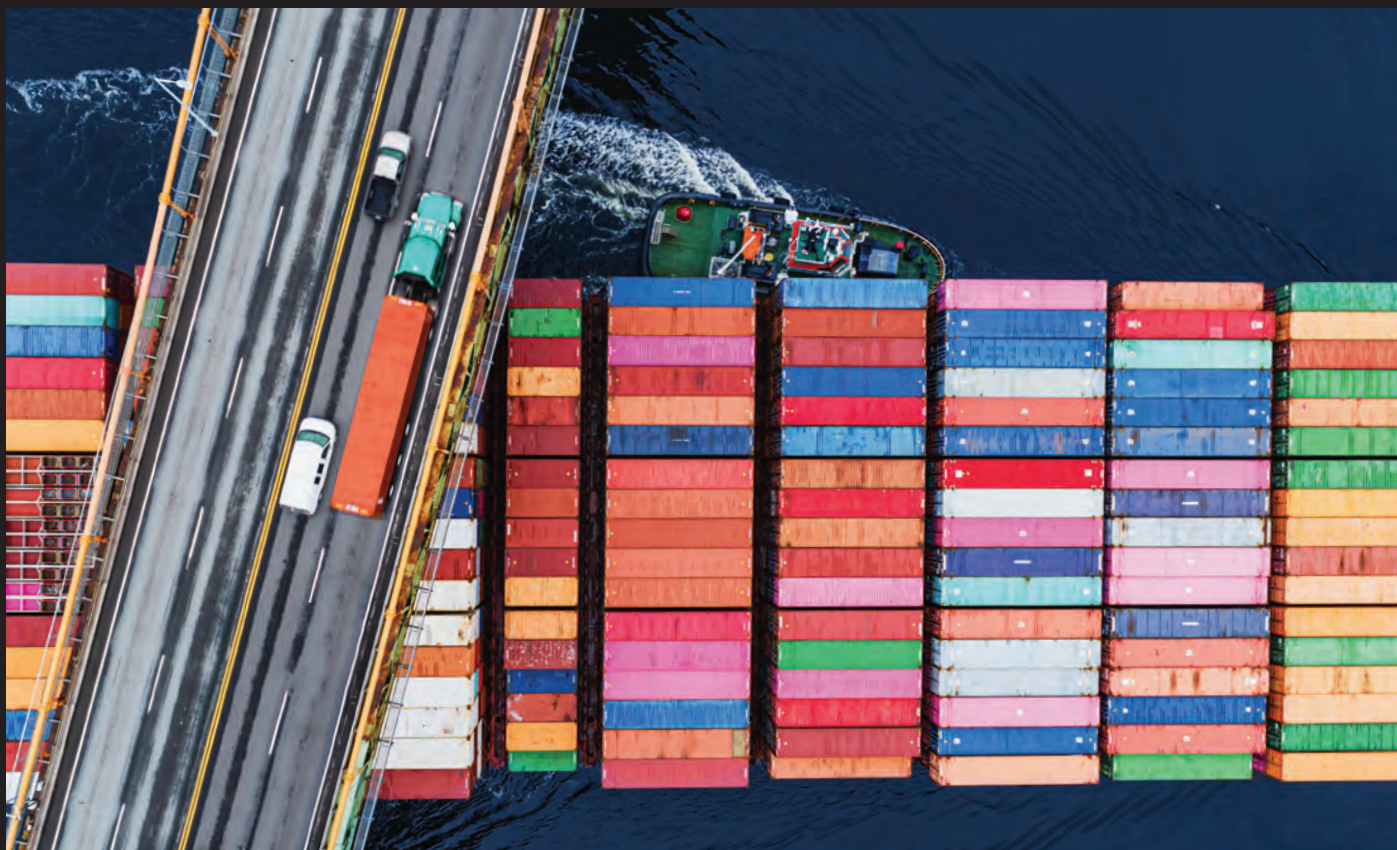
Knatz's history of the Port of Los Angeles is, above all, an example of great storytelling, putting on center-stage the men and few – but remarkable – women that made this history. ■

Buy the book here:

🌐 www.angelcitypress.com/products/anga

Best in Class Trade Research Tool From Macro, Micro to Forecasting

Global Trade Analytics Suite (GTAS) is the most comprehensive, intuitive, and powerful trade research tool on the market. Our suite of trade products delivers decision ready intelligence through analytics that have been built to evaluate global trade, commodity values, and identify companies involved in trade activity.



To find out more visit ihsmarkit.com/GTAS



WORLD PORTS CONFERENCE 2023

Why sponsor?

Sponsorship of the IAPH World Ports Conference places your company in a position of authority and enables you to build and strengthen your relationships and increase visibility to global stakeholders including shipowners, ports, logistics providers, local communities, regulators, equipment providers and related third parties.

A world-class, in-person event in Abu Dhabi bringing together leading port stakeholders for learning, information sharing, networking and collaboration.

For sponsorship visit:
worldportsconference.com/sponsors

Engagement

Generate new business prospects and deepen existing relationships with direct access to established industry leaders and new personnel.

Visibility

Benefit from the extensive range of marketing and public relations carried out before, during, and post event, all incorporating your brand.

Alignment

Align your brand with the global reach of the International Association of Ports and Harbors and gain exposure to shipowners, ports, logistics providers, local communities, regulators, equipment providers, and related third parties.

Thought Leadership

Highlight your expertise and show your in-depth understanding of the industry through this global port event.