IAPHHAMBURG2015
29th WORLD PORTS CONFERENCE

Daily News

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PHOTO: HASENPUSCH

Chance meeting in the port of Hamburg: New megaboxer "OOCL Singapore" (13208 TEU) meets sister ship "OOCL Bangkok"

German ports need to cooperate

New study – A stronger partnership can improve competitive position

Companies in the transport sector would like to see more cooperation between the large German ports in Hamburg and Bremen in order to handle increasing freight volumes more efficiently.

That is the result of a study published by HSH Nordbank, which was presented yesterday on the third day of the World Ports Conference in Hamburg. A major finding of the survey is the fear many companies in the transport sector have of capacity bottlenecks leading to a loss of business in the Port of Hamburg. Dr. Marcus Kleiner, expert for logistics and infrastructure at HSH Nordbank, suggests that cooperation with the Bremen ports and the JadeWeserPort in Wilhelmshaven could strengthen the competitive position of these ports in relation to Rotterdam and Antwerp.

Within the framework of such a cooperation and as a means to reduce transit times and alleviate the Port of Hamburg, ships from Asia on transhipment container runs, could, for example, first call at JadeWeserPort.

The study is based on a poll *to page 8 →*

CONTENTS

11 Triple-Es for Maersk

New ultra-large second generation – 1.8 billion dollar value

Maersk Line announced it has now ordered eleven new ultra-large second generation Triple-E containerships from Daewoo Shipbuilding & Marine Engineering (DSME).


PHOTO: MAERSK

Triple-E Construction at Daewoo Shipbuilding in South Korea

The new vessels will be the shipper's largest and are intended to enter Asia - Europe service between April 2017 and May 2018. The contract has a value of 1.8 billion dollars including an option for six additional vessels. The ships will have a capacity of 19630 TEU each, a length of approximately 400 meters (m), width of 58.6m and a 16.5m draft.

The contract was signed by Sung-Leep Jung, President and CEO of DSME, and Søren Skou, CEO of Maersk Line, during a ceremony at Maersk Line's headquarters in Copenhagen.

This is the second new-building order in Maersk Line's investment program, following the seven 3600 TEU feeder vessels announced earlier this year. Over the coming five years, Maersk Line plans to invest $15 billion in new-buildings, retrofitting, containers and other equipment, the company said, noting it will thus be able to maintain the necessary capacity to grow with global demand as well as replace less efficient tonnage.

"These vessels will help us stay competitive in the Asia - Europe trade and will be key in our strategy to grow with the market," said Søren Toft, Chief Operating Officer (COO) at Maersk. "It is the second order this year and we expect to order more vessels to add to our fleet from 2017 and onwards."

Maersk Line has a long relationship with DSME. Most recently, DSME built the first generation Triple-E vessels, the last 20 of which will be delivered in June 2015.

Cooperation on hull performance

DNV GL and the Norwegian paint manufacturer Jotun signed a cooperation agreement to work on improving hull performance at Nor-Shipping yesterday. The project will bring together two performance management services, Jotun's Hull Performance Solution and DNV GL's ECO Insight solution, to collect and analyse data on hull degradation. This will enable customers to cut their fuel bills and reduce emissions.

PHOTO: TIM BRUENING

Grand Gala Dinner

The Fish Auction Hall – directly on the Elbe

This evening visitors to the World Ports Conference will be celebrating the Grand Gala Dinner. In former times the location had a quite different purpose.

The "Fischauktionshalle", address Große Elbstraße 9, was the hub of the fish trade in Hamburg.

Built in the 19th century as a central market place, today the Fischauktionshalle is primarily an event location. Nevertheless, the impressive red brick construction still pays tribute to the port of Hamburg's remarkable history. The Altona Fischauktionshalle with its industrial appeal and rough charm is one of the city's top tourist sites and attraction for up to 4200 people. Kaiser Wilhelm II. opened the construction in a grand ceremony in 1896.

IMPRINT

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“Kind of a revolution”

Stricter international environmental standards at sea to be expected in the future

BSH President Monika Breuch-Moritz PHOTO: HINRICH FRANCK

Sea transport of containers has a reputation of being climate friendly due to low carbon dioxide (CO_2) emissions per tonne kilometer. However, the act of shipping throws immense quantities of harmful substances into the atmosphere all around the world. This has led to a number of international environmental regulations at sea being passed, some of which are already in force. Others to come are being discussed at committee level.

“Why do we need regulations?” asked Monika Breuch-Moritz, President of the Federal Maritime and Hydrographic Agency (BSH), as she opened her lecture on the subject „International environmental standards at sea“ on Wednesday afternoon in the CCH.

The answer is quite simple: Whereas in the past shipping was seen as a major contaminator, new regulations have contributed to a more positive view in recent years. Breuch-Moritz pointed out that the discussion is presently dominated by three main issues: ballast water, sewage and air emissions.

“MARPOL Annex VI on air emissions is a good example on how regulations developed and how they are monitored.” Although the first reduction of sulphur dioxide for the Baltic Sea as Sulphur Emission Control Area (SECA) was adopted as early as 1997, it did not come into force until 2005. “Limitations at that time were still too high”, she explained.

“Public awareness of environmental protection has grown immensely during the last 10 years in the US and Northern Europe. Nevertheless, the majority of countries were reluctant to support legislation beyond IMO rules (International Maritime Organisation).”

Since 2015 stricter sulphur dioxide regulations have been introduced for the SECA in the Baltic and North Sea and on both North American coasts: Fuel is only permitted to have a maximum sulphur content of 0.1 per cent. From 2020 or 2025 at the latest a limit of 0.5 per cent is foreseen.

“The new regime will be a kind of revolution”, said Breuch-Moritz. “I sincerely hope that the worldwide regulation will enter into force in 2020.”

For Germany she is pleased today about the positive results BSH has been measuring: Sulphur dioxide emissions in January this year were significantly lower than December 2014.

IT technologies are moving into ports all over the world: Agreement from Wim Elfrink (Cisco), Jens Meier (HPA), Volker Worthmann (Lufthansa), Moderator Max Boodie, José García de la Guia (Port of Valencia), Michael Pal (Port of Fremantle) and Patrik Bol (DP World) (from left)

"Think big – Start small"

International IT- and port experts explain smarter infrastructure for terminals

How to handle increasing container volumes in the shortest conceivable time in an area of constant size? That is only possible using the latest cargo handling equipment and intelligent IT systems. Experts from the technology sector and port managers found agreement on this subject during a podium discussion at this year's IAPH Conference in Hamburg.

"24 hours to load and unload 6000 containers – that will become the new standard." These words of Patrick Bol, Director Global Operations at terminal operator DP World, describe the challenge facing container ports. Such volumes not only make huge demands on the terminals but also on traffic infrastructures in the hinterland.

"Ports can only be intelligent when freight and transport data are seamlessly linked," added Jens Meier, Chairman of the Management Board at Hamburg Port Authority (HPA) referring to the Smart Port Logistics Project in the Port of Hamburg. José García de la Guia, IT Head for the Port Authority of Valencia demonstrated the benefits of such links commenting, "Information on ship arrivals and freight volumes could, for example, flow into traffic forecasts."

Conditions for such systems to be realised in the individual ports are far from homogenous. "For an IT project there's a big difference between starting from scratch or having to work one's way into an existing system envrionment," says Wim Elfrink, Executive Vice President, Industry Solutions and Chief Globalisation Officer of the IT corporation Cisco. Cooperation between the public and private sectors is essential if smart ports are to have a chance of success. HPA boss Meier believes that there's no way round smart port concepts. Compared to the construction of physical port infrastructure IT projects are inexpensive. Volker Worthmann, Director Transport and Logistics at Lufthansa Industrial Solutions, nevertheless advised against unmanageable mega projects. "Think big, start small," his tip.

The fact that even small ports can create smart systems with reasonable cost and effort was proved by Michael Pal, Principal Transport Analyst at the Australian Fremantle Ports, with his own example: The port authority records truck congestion on a video system which allows it to identify which terminal is responsible for any upsets to normal processes. Since introduction of the system traffic flows in all areas of the port have visibly improved – as have clearance times for trucks.

THE RED SOFA

Bomb scare stops talk

Sofa talk with Jens Meier not possible

Jens Meier, Chairman of the Management Board Hamburg Port Authority (HPA) and host of the 29th World Ports Conference in the Congress Center Hamburg (CCH) was calm, cool and collected - in spite of a bomb scare that prevented his sofa talk from taking place as scheduled.

The details: 14.15 on the dot, the first talk with Bernd Appel, Managing Director Lufthansa Industry Solutions, and DVV moderator Tim-Oliver Frische had just finished. Then IAPH Chief Organiser Sabine Stüben (HPA) approached and told us in a clear and unmistakeable voice to evacuate the room - immediately".

Frische, Meier and Appel (photo left to right) did as instructed but found time to have an informal chat in the foyer. "I've learnt to differentiate between what's important and what's essential," said a cool-headed Meier - Respect.

Nobody would have expected the entrance door to the Red Sofa to remain closed for so long. No further talks took place for the rest of the day. It appears the whole world in these days of Germany's Next Topmodel has become more cautious - the live broadcast of the recent final was cancelled due to a bomb scare.

The "bomb" turned out to be a harmless brief case that someone had left whilst nipping out for a cigarette. Smoking, it seems, is not only bad for the health, but can also be a cause of misfortune for Red Sofa talks at the IAPH.

PHOTOS: HINRICH FRANCK

smartStowage gives back time for collaboration

Early and detailed communication could become a key factor for success

Digitalization of the maritime industry and associated logistics might mark the beginning of full networking for all players in the logistics chain.

Port operators are developing digitalized management systems for optimizing traffic flows, terminal operators are automating systems for handling goods, and liner operators can use modern software solutions to improve shipping operations and capacity utilization. Early and detailed communication and data availability could become a key factor for successful collaboration.

Logistics 4.0 starts with stowage

Ship arrivals remain the starting point for any integrated port logistics chain. Ocean carriers and terminal operators have a special interested in port stay times, cargo intake and moves, as well as fuel oil consumption. A professional stowage plan provides answers. It includes not only details of the cargo planning according to the port rotation, but takes into account the proper separation of specific loads, makes full use of the cranes at ports and ensures the sustained stability of the container ship. The more carefully all factors for stowage planning are considered, the greater the benefits for liner companies and terminal operators. With a view to integrating even more relevant factors for stowage and producing results for alternative stowage plans very quickly, Interschalt maritime systems, in co-operation with the IT University of Copenhagen, developed the stowage planning software StowMan[s] launched in 2014. This software generates multiple economically and logistically optimized stowage plans in next to no time by producing alternatives on an iterative basis. The resultant time savings allow the stowage planner in consultation with the terminal operator to plan perfect loading and discharging operations.

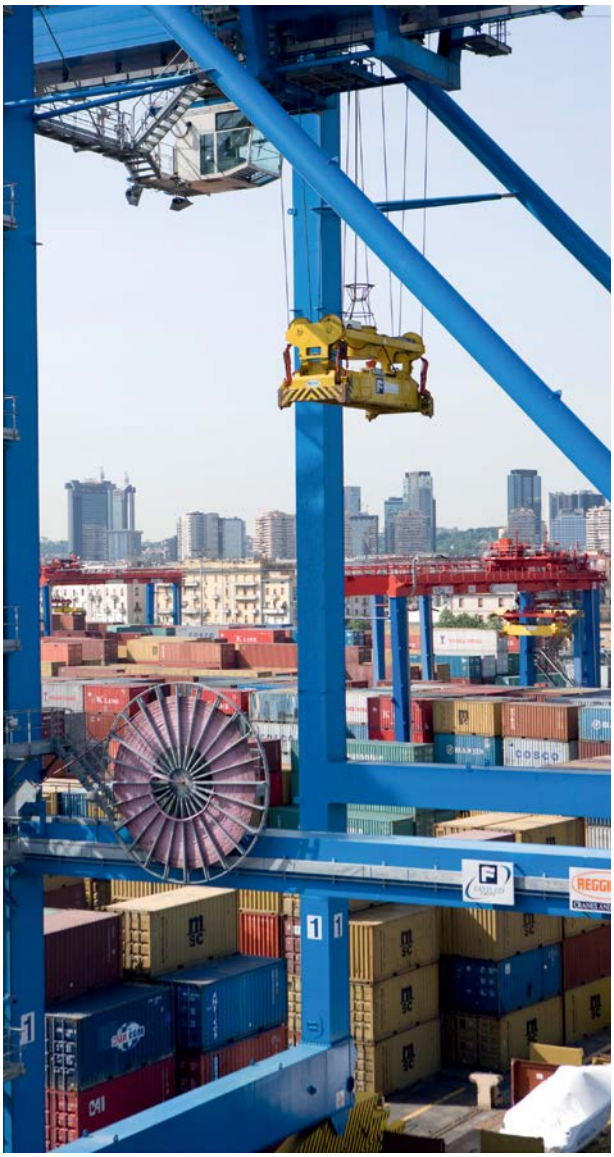


PHOTO: INTERSCHALT

A professional stowage plan provides answers

Influence on terminal operation

Using StowMan[s] could create a win-win situation for liner operators and terminals. Liner operators benefit from an increased ship capacity utilization. At the same time, fuel consumption can be reduced thanks to trim optimization. Terminal operators enjoy the benefits of better, foresighted coordination of all terminal processes. They begin before the ship even arrives and can be seen in an improved yard organization, as early and extensive information improve the berth allocation, container prestow and the planning of storage areas for cargo remaining at the port. Calculating the crane capacity required for transshipment and the intensity of crane use has an influence on terminal operations too. Precise details of the process times for container moves allow appropriate scheduling of container gantry cranes and their crane operators and the additional equipment used for loading.

Beyond transshipment at the quayside, it is important to prepare for the further transport of cargo by rail or road. Optimum data and information made quickly available are particularly beneficial for the port operator's traffic management. smartStowage tools like StowMan[s] save time in the creation of stowage plans. If all members of the supply chain could use these time savings during their planning phases, current theoretical advantages of a networked collaboration could become best practice.

Impressions

Conference, Cocktails & cool Chiefs

White sand under the feet, Balinese sounds and exotic cocktails gave a first idea of the country that will host the IAPH World Ports Conference in 2017. The Indonesia Port Corporation yesterday invited to a Bali Night at Hamburg Beach. Earlier a bomb scare (page 4) had been unable to dampen the good spirits of port chiefs in the CCH. The more than 900 attendees kept a cool head.

PHOTOS: HINRICH FRANCK; IAPH (1)

Competition for sea transport

China to invest billion dollars in the new Silk Road

from page 1 → of 50 companies in the transport sector who had responded negatively to questions on the Port of Hamburg.

The most important infrastructure projects for the Port of Hamburg are the deepening of the navigation channels in the River Elbe, realisation of the high speed rail link between Hamburg, Bremen and Hanover as well as continued expansion of the port railway. "These projects must be realised promptly otherwise Hamburg will lose freight volumes to other North Range ports," warns Kleiner. Since the Port of Hamburg cannot expand its area, better organized processes and transport flows could arise, according to the companies polled, if certain functions were delegated to the hinterland, e.g. container sorting, and the port railway network extended. More efficiency through deployment of intelligent IT traffic management systems, on the other hand, is not seen by these companies to hold much prospect of success.

The vast majority of companies in the poll would be prepared to support the urgently needed development of port infrastructure in the form of user financing, that is, toll charges - as far as their own companies would profit from such a measure.

New rail link to Asia as future alternative to sea route

Relief for the Port of Hamburg is also promised by new rail links along the route of the ancient Silk Road from Europe to China (see map above). "To a certain group of clients these rail links are already an alternative to the sea route", says Kleiner. Although the direct Germany-China rail connection has so far only been used by a few companies, several others have announced that the routes would also open new trade opportunities for them to Eastern Europe, Russia and Asia.

China is currently investing massively in infrastructure projects, not only in its own country, but in the development of global trade routes. This role played by China strengthens its power position in international trade and is a policy most of the polled companies are convinced China will continue. "Only through the necessary investment in higher infrastructure efficiency will the North German ports be able to hold onto their position in international transport logistics", concludes Kleiner.

Dr. Marcus Kleiner

PHOTO: HSH NORDBANK GRAPHIC: DVV MEDIA

Power from the box

Hapag-Lloyd uses onshore concept for its container ships

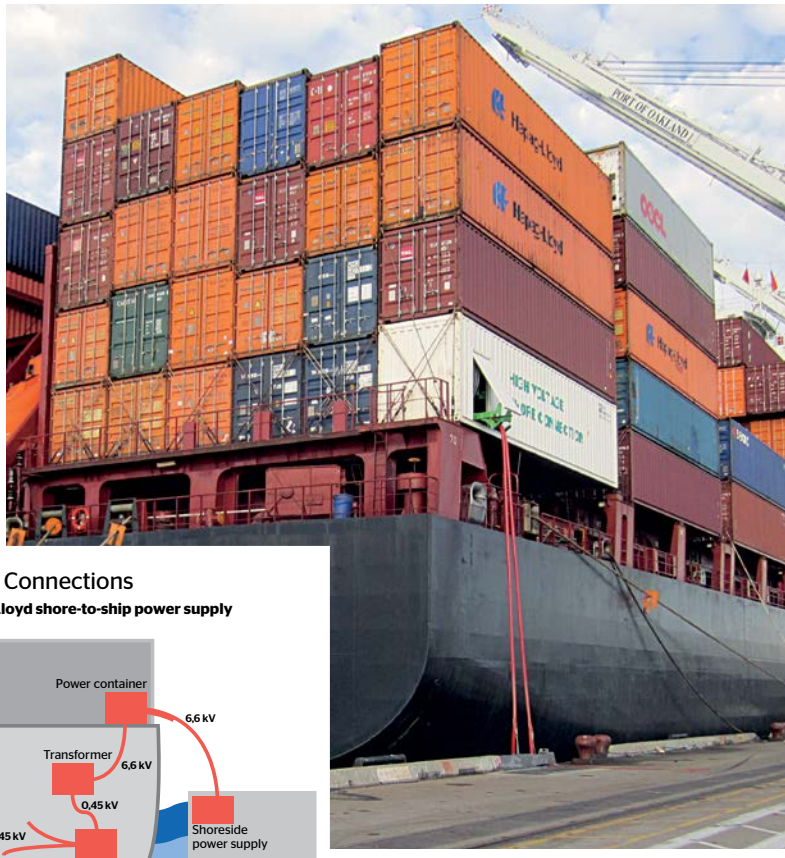


PHOTO: HAPAG-LLOYD

Since 2012 the Hapag-Lloyd shipping line has been using a concept for providing shore-based power to its container ships in US ports. It can be applied to almost all ships in the fleet, irrespective of shipboard voltage or power requirements at berth.

When the „Dallas Express“, operated by the Hamburg shipping line, sails into the port of Oakland in California one 40 foot container on deck will not be unloaded. For the white box with conspicuous green lettering on the side contains hardware to enable the ship to use electricity generated onshore. The technical solution earned the liner service this year‘s „Hanse Globe“ prize for sustainable projects awarded by the Logistic Initiative Hamburg (LIHH). „We see responsibility and sustainability not as a short-lived fashion trend, but as a key to long-term success and are particularly pleased to receive this award in and from our home city“, says Rolf Habben Jansen, Hapag-Lloyd CEO. Supplying electricity from off-ship sources to power onboard facilities whilst in port is gaining importance as a means of protecting the population and environment from ship emissions in and near port and coastal areas. The principle of providing ocean-going vessels with onshore power when docked currently seems to be a better solution to reduce emissions than floating generators. Known as Onshore Power Supply (OPS), Alternative Maritime Power (AMP) or Cold Ironing, the basic idea is that a ship‘s auxiliary diesel engines, which otherwise generate electricity to power the ship‘s essential functions at berth, can be switched off completely, electricity being provided instead by a generator located in the port itself or directly from the local electricity grid. The fact that auxiliary engines remain idle represents a major factor in reducing health hazards and pollution caused by sulphur dioxide and fine particle emissions; hence air quality is improved, particularly in port locations and surrounding areas. Noise levels are also lowered.

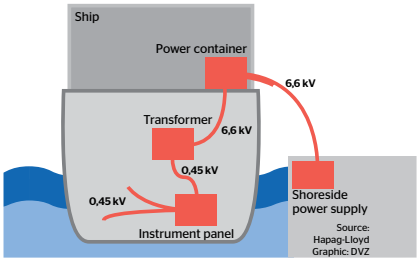
Authorities have taken many different measures to reduce the ecological impact of ship emissions in port and coastal areas. The solution to feed power generated onshore into the ship‘s electricity system when in port was heavily pushed by the state of California, which since January 2014 requires 50% of a shipping line‘s vessels sailing into Californian ports to use onshore power, further to a total 50% reduction in electricity consumption by all incoming ships. With other ports throughout the world working on similar onshore power concepts, the need for ports to agree on a uniform technical standard was important for shipping lines, since it takes a lot more to utilising onshore power than merely inserting a plug into a socket.

Hapag Lloyd cooperated with the Port of Oakland in a pilot project culminating in its „Dallas Express“ being the first ship to successfully connect to onshore power on 3rd December 2012, shortly after the port had completed the necessary investment in technical infrastructure in August 2012. Onshore power supply is also known as High Voltage Shore Connection (HSVC). For a ship to use onshore power voltage must be converted from 6600 volts on land to 450 volts on board through an 8 ton transformer located next to the rudder engine room. Newer ships on a 6600 volt system, including the ten new 13200 TEU „Hamburg Express“ class vessels, are already compatible, so the container can easily be operated on routes also to the Far East when onshore power supplies are available in ports there.

Hapag Lloyd developed the special container with the electric components to tap onshore power with the Hamburg company SAM Electronics. Located at the stern of the ship, the 40 foot box contains a cable on a drum that can be extended and connected to the power source on land. Further features of the drum are its ability to automatically compensate for tidal lift and a lock preventing accidental disengagement. The container is compatible for use on almost the entire fleet, irrespective of on-board voltage and power requirements, therefore can be transferred to another vessel if the ship is placed on a different route or in times of maintenance or repair. 21 ships in the Hapag Lloyd fleet are currently fitted with this flexible solution, therefore are not only able to use onshore power in California, but in all ports conforming to international Standard 80005-1.

Good Connections

Hapag Lloyd shore-to-ship power supply



Full steam ahead for the port of the future

„smartPORT logistics“ in regular operations – More efficient flows of goods – Shorter waiting times and fewer backlogs

Shorter truck waiting times for the Port of Hamburg PHOTO: TELEKOM

The Port of Hamburg is setting off with the logistics system of the future.

The Deutsche Telekom subsidiary T-Systems and the Hamburg Port Authority (HPA) have signed a contract that will launch regular operations with this globally unique logistics system. „smartPORT logistics“ enables the Port of Hamburg to coordinate truck and container movements more efficiently. This reduces logjams and waiting times in the port area and increases cargo turnover. The HPA plans to connect as many trucks as possible that travel through the Port of Hamburg daily with the app-based telematics solution.
The foundation of this project is an original equipment manufacturer (OEM) agreement between T-Systems and SAP for „connected logistics“. Connected logistics is a logistics solution that addresses the needs of logistics centers for seaports, airports, parcel distribution centers and manufacturing sites. „Today, the logistics industry often faces the challenge of having to optimize flows of goods in a limited area. With smartPORT logistics, we make it possible for the HPA, for example, to manage their flows of goods in real time and therefore to use their limited space efficiently,“ says Horst Leonberger, head of Deutsche Telekom's Connected Car unit.

One additional load per day

In Hamburg, the „smartPORT logistics“ system brings all the relevant traffic and infrastructure data of the 72-square-kilometer port facility together in real time: the locations of trucks and containers, terminal and warehouse information, construction sites, bridge opening times, and available parking spaces. It gives port managers, freight forwarders and parking lot operators a comprehensive picture of the situation at all times, enabling them to react to traffic congestion quickly. „The smartPORT logistics solution supports the Hamburg Port Authority in coordinating traffic flows more predictably,“ says Nils Herzberg, SVP, Global Co-Lead, Internet of Things GTM at SAP. „The solution helps us anticipate surprises. Since it works with real-time data, its recommended actions are based on facts, not conjecture.“

All real-time data in one application

smartPORT logistics is a private cloud application based on the T-Systems Connected Car platform and the SAP Connected Logistics-Software by SAP. The application unifies freight data with telematics system information from a variety of providers, as well as the traffic and infrastructure data from the HPA. Deutsche Telekom also provides an Android app, which serves as the telematics unit in the trucks. The SAP Connected Logistics software then merges all the real-time data and provides it to users in an online portal.

More freight, same space

„Our goal is to achieve a truly smartPORT. This includes ensuring the best possible supply of information for everyone involved in port operations,“ says Jens Meier, Chairman of the Management Board of HPA. „With smartPORT logistics, we have begun connecting everyone involved in the supply chain, enabling them to coordinate their processes with one another in real time. If everyone participates, we are on the right path.“ The Port of Hamburg is Europe's second-largest port. In the past year, the port handled nearly ten million containers. This figure is expected to double by the end of 2025. Due to its location in the heart of the city, however, there are geographic limitations to its ability to expand.

CONFERENCE IN THE APP STORE

Programme Highlights

Thursday 4TH

Future Trends for Cruise Shipping and Ports

09.00 - 09.30 **What is the Role and History of the United Nations for the Maritime Industry?**
Michael Shewchuk, United Nations
Hall B, CCH

10.00 - 11.00 **The Importance of Law for Trade and Ports**
Discussion with Michael Shewchuk, Frans van Zoelen, Christoph Hasche, Marcus John,
Hall B, CCH

10.05 - 10.15 **Development of the Cruise Shipping Industry in the Port of Hamburg**
Michael Ungerer, AIDA Cruises
Hall G, CCH

10.15 - 10.25 **Smart Terminals – smartPORTs: What Can Ports Contribute to a Dynamic Cruise Industry?**
Bo Larsen, CLIA
Hall G, CCH

10.25 - 11.10 **The World is Going on a Cruise: Does Growth in Tourism Come at the Expense of the Environment?**
Discussion with Douglas Ward, CHA Min-sik, Roberto Perocchio, Bo Larsen, Michael Ungerer, Max Boodie,
Hall G, CCH

11.40 - 13.25 **How Diversity Contributes to Smart Thinking**
Forum with Dr Geraldine Knatz, Dr Maria Carolina Romero, Dr Phanthian Zuesongdham, Dato' Capt. David Padman,
Hall B, CCH

12.30 - 12.40 **Hong Kong's Action to Clean Up Maritime Emission**
Christine Loh, Hong Kong Special Administrative Region Government
Hall G, CCH

14.15 - 14.45 **Closing Ceremony**
Hall G, CCH

19.30 **Gala Dinner**
Fish Auction Hall

TODAY'S SOFA TALK

from 13.25

Axel Mattern, CEO, Port of Hamburg Marketing

Jörg Pollmann, Chief Harbour Master, Hamburg Port Authority

Ulrich Wrage, Chairman, DAKOSY

Jens Meier, Chairman of the Management Board, Hamburg Port Authority (expected)

SIEMENS

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Ships and port facilities

Faster, safer, cleaner

Intelligent infrastructure solutions increase efficiency, reliability, and environmental compatibility around the world

Ports are facing enormous technological and logistical challenges. A growing flow of goods must be reliably controlled and transported within a limited space – and at increasingly faster speeds. At the same time, these important hubs for global cargo and passenger services must meet ever higher standards of energy efficiency, environmental compatibility, and operating safety.

As an experienced partner to the port industry, Siemens supplies integrated systems and solutions worldwide – solutions that ensure reliable, efficient, and environmentally compatible port operation, both today and in the future.

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