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The scene for this opening event was set by a spectacular stage show with special views in the future of ports and maritime logistics

## Conference starts with record

### OECD warns of larger vessels – Over 900 guests discuss intelligent port schemes

The economic benefits of huge container ships are smaller than expected. Many savings on the one side simply end up as costs on the other, according to a study by the Organisation for Economic Co-operation and Development (OECD), which was presented at the World Ports Conference in Hamburg on Tuesday.

“We are getting close to the point where larger ships no longer make sense,” claims Olaf Merk, expert for ports and ships and author of the OECD study. “In fact, we may already have crossed this point.” Over 900 international representatives from the worlds of business, politics and science as well as over 60 press representatives have gathered in the Hanseatic City for the five-day conference.

Olaf Scholz, Hamburg’s First Mayor gave a preliminary starting signal during a Senate reception at the Hamburg City Hall on Monday. A Welcome Dinner held at the Hamburg Chamber of Commerce in the adjacent New Stock Exchange then enabled delegates to warm up and get in the mood for the conference week ahead.

The official opening of the 29th IAPH →

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from page 1 → World Ports Conference in the Congress Center Hamburg (CCH) took place yesterday. Grant Gilfillan, IAPH President & Chief Executive Officer/Director of the Port Authority of New South Wales, Australia, ceremonially opened the conference. Welcome speeches followed from Enak Ferlemann, Parliamentary State Secretary at the Federal Ministry of Transport, Building and Urban Development, Frank Horch, Hamburg's Senator for Economics and Jens Meier, Chairman of the Management Board Hamburg Port Authority (HPA).



Yesterday evening's Maritime Dinner for conference guests at the International Maritime Museum in the HafenCity PHOTO: H. FRANCK



## Bali Night in Beach Club

Getting in the mood for the 30th World Ports Conference

Today the Indonesia Port Corporation invites you to "Bali Night" in the event location run by Beach Hamburg GmbH. With heated sand under foot, fruity cocktails and exotic beats, guests at the Hamburg World Ports Conference will be given an atmospheric taste of what's to come at the 30th IAPH World Ports Conference in Denpasar, Bali in 2017.

Roughly 15 minutes from the city centre, address Alten Teichweg 220, two large halls with bar area and white sand offer 2300 square metres for creative ideas and relaxing, cordial hours in the beach lounge. Outside a spacious area with large beach, lawns and open air swimming pool awaits visitors.

## IMPRINT

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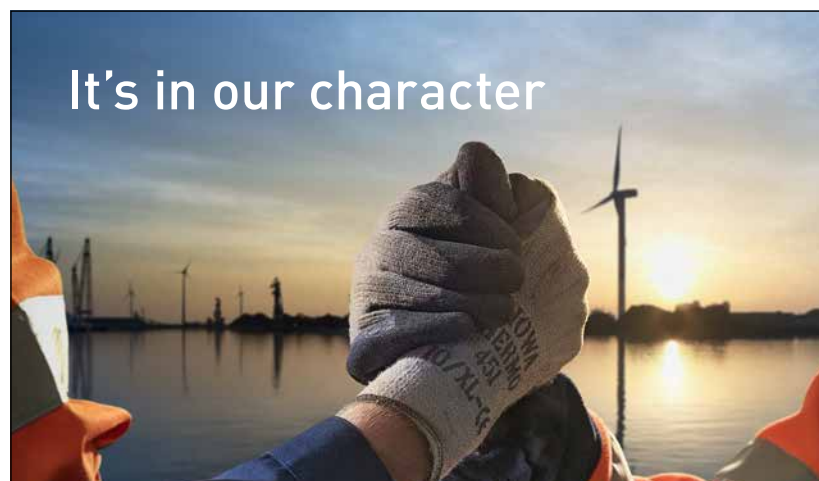
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# Large Cranes for Large Vessels

The CTB expands its capacities for the latest generation of mega-ships

Hamburger Hafen und Logistik AG (HHLA) yesterday announced its order for three new container gantry cranes for the Burchardkai Container Terminal (CTB).

These state-of-the-art cranes make it possible to handle ships with a capacity of 20,000 standard containers (TEU). The CTB is thereby expanding its capacities to accommodate the latest generation of mega ships. Chinese manufacturer ZPMC will be the supplier of the cranes. Dr. Stefan Behn, member of the HHLA Executive Board, pointed out the significance of the investment: "The number of ultra large vessels calling at our Hamburg terminals is growing all the time. The new cranes provide us with additional capacity and flexibility, allowing us to continue handling vessels with the high level of productivity that our customers are accustomed



The HHLA has ordered three new container gantry cranes for the Burchardkai Terminal PHOTO: HHLA

to. Purchase of the cranes is part of our long-term programme to adapt to ship sizes and increase productivity. At the same time we are implementing measures to ensure a more efficient coordination of traffic both at the quayside and in the hinterland."

The new container gantry cranes will be positioned at berth 5/6 and are designed for container ships with 24 transverse container rows. Thanks to their 74-metre jibs, they are appropriately equipped to handle 20,000 TEU ships.

The new cranes can also operate in tandem mode. With one lift they can move two 40-foot containers or four 20-foot containers. Each container gantry crane weighs 2,400 tonnes and has a maximum payload of 110 tonnes.



THE RED SOFA

## Accomplished IAPH Premiere

Discussion on LNG and large container ships

LNG in large container shipping? "Sure, that's certainly going through a lot of people's minds," said Dirk Lehmann, Managing Director of Becker Marine Systems, the first interview guest on the Red Sofa. "Of the 19 orders for long-distance container ships with LNG propulsion built by Hyundai for United Arab Shipping Company (UASC), the 14000 TEUs are already in service and one 19600 TEU ship has been christened and due for delivery shortly. That's precisely

the push LNG needs."

Frank Schnabel (pictured right), Managing Director of Brunsbüttel Ports, sees LNG as a strategic issue. Brunsbüttel has the biggest interconnected industrial area in the state of Schleswig-Holstein. In the so-called ChemCoast Park established companies dependent on gas, such as Yara, Sasol and others, will have greater needs in the future. "LNG could be an interesting alternative to pipeline gas for these companies."



Jost Bergmann, Business Director at DNV GL, announced that 24000 TEU giants are technically possible today. These can even be built on the basic 19000 TEU ship structure. "19100s are already sailing the world's oceans, 20500 TEU ships are the largest class of ships you will find in the order books and some of our researchers believe that it's simply a matter of time before we have 30000 TEU."

PHOTO: HINRICH FRANCK

# More collaboration needed

Shipping lines need to talk to ports about infrastructures for ULCVs



Panel discussion on container ship growth

PHOTO: H. FRANCK

Container ships are the workhorses of globalisation. The biggest ones at the moment have a capacity of over 19,000 TEU. Orders have already been placed for vessels with more than 21,000 TEU capacity, so-called ultra large container vessels (ULCVs) and will enter service in 2017. Drivers of this development are the large international shipping lines who hope that economies of scale for bigger ships will bring significant savings for each container transported.

But how do these mega boxers impact

other players in the logistics chain? Are the shipping lines the only party that reaps the rewards, whilst terminal operators face more costs in providing higher gantry cranes, stronger quay walls and larger container terminals? Will it be left to the taxpayer to foot the bill for new expansion programs for roads and infrastructure?

These were the questions aired to the panel during the „Bigger Vessels – Bigger challenges“ discussion moderated by Max Boodie on Tuesday afternoon.

## Pannel Discussion

Jost Bergmann, Business Director for Container Ships at DNV GL, opened by asking if it really made sense to build bigger and bigger vessels. However, no clear answer was forthcoming for this question, neither for the the next question posed by PD Dr Christian Growitsch, Director of the

Hamburg Institute of International Economics (HWWI), who wanted to know: “who will pay for it?”. Olaf Merk, Administrator Ports and Shipping, International Transport Forum (ITF) at OECD, pointed out that there is a “disconnect between shipping lines and infrastructure”. Jörg Pollmann, Harbour Master of the Port of Hamburg, also held the opinion that shipping lines fail to talk adequately with ports about infrastructures and planning for the future. Capt. Salvatore Cafiero, Environmental Manager & Training Officer at MSC P/Sorrento, on the other hand, stressed that MSC already collaborates closely with ports and port authorities.

## IAPH Voting App

Moderator Max Boodie then asked the audience to vote via app whether it makes sense for one member of the logistic chain to benefit from ultra large ships at the expense of other parties. The result was very clear indeed: 65 per cent of the voting participants responded with a definite „no“. Reacting immediately to this poll, Olaf Merk proposed a global discussion with all involved parties.

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# What's the Limit for Mega Boxers?

Trend continues – New orders smash the 20 000 TEU barrier

395 m long and 59 m wide the “MSC Oscar” is currently the world's largest container ship

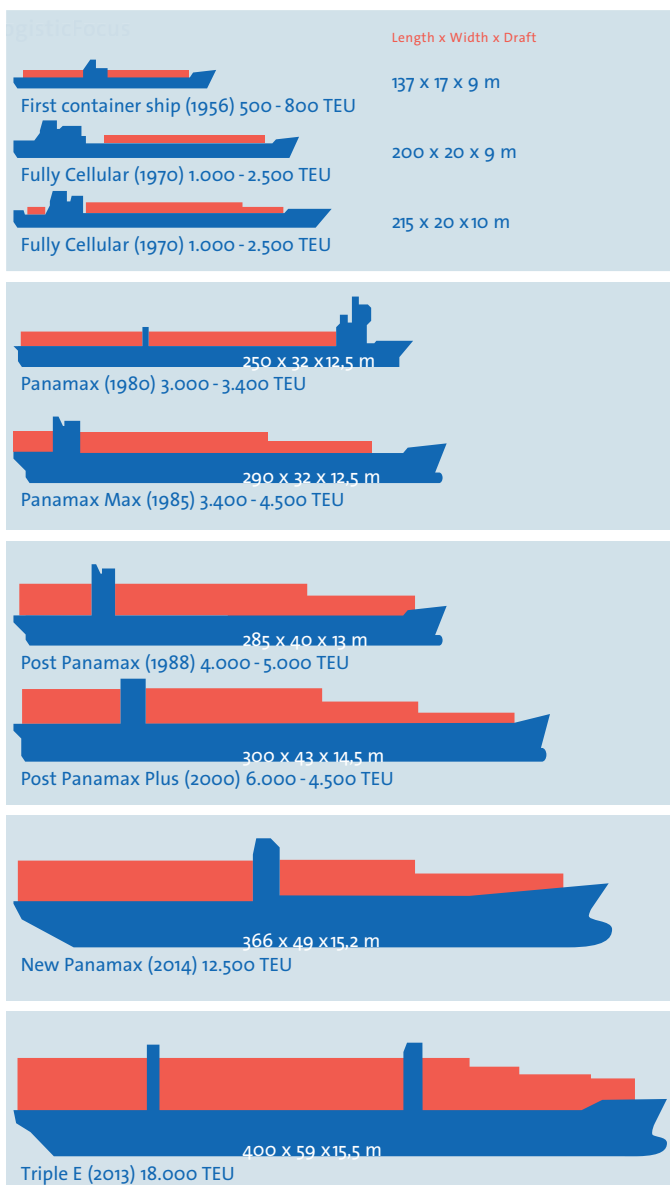
PHOTO: HASENPUSCH

Rapid growth in the size of container ships raises the simple question: Where is it all going to end? After all, forecasts in recent years have always been exceeded earlier than predicted.

The latest chronology of new orders for ultra large container ships reinforces this trend. Whilst the 20,000 TEU limit for mega boxers seemed a wild dream only a few years ago, this threshold was crossed for the first time with the announcement in early March this year of Mitsui O.S.K. Lines' order of six 20,150 TEU carriers to be built for the Japanese shipping line by Asian shipyards and delivered by 2017. Just one month later The Hong Kong line OOCL broke this record by ordering six vessels with 21,100 TEU from Samsung Heavy Industries, scheduled for delivery in November 2017. French shippers CMA CGM too are investing in this size category with an order for three 20,600 TEU vessels awarded to Hanjin Heavy Industries, delivery also to be taken in the latter half of the year after next. Rumours even abound of an unconfirmed order for more than eleven container ships in the 20,000+ TEU segment submitted to Imabari Shipbuilding.

Currently the Mediterranean Shipping Company's

## CONTAINER SHIP GROWTH



GRAPHIC: BLG

“MSC Oscar” is the world's a capacity of 19,224 TEU it biggest container ship. With superseded China Shipping

Container Lines' 19,100 TEU “CSCL Globe” after a space of just two months.

As far as design and stability of ultra large container ships are concerned, the limit seems to be far higher still. Furthermore, the demand for larger ships will continue due to economies of scale driving down transport costs per container. According to Jost Bergmann, Business Director for Container Ships at DNV GL, there are no technical problems to build 24,000 TEU freighters in the future. Other experts go even further and envisage mega boxers with a capacity of 30,000 TEU.

Nevertheless, container giants face restrictions in width and draft in navigation channels and seaport infrastructures even today. Ports, freight terminals, logistics services and hinterland traffic are faced with completely new challenges, not only requiring enormous investment, but organisational know-how as well. As the key interface in the logistics chain, ports must be equipped to cope with growing container numbers at peak times. “Bigger vessels and bigger challenges” demand more intelligent solutions. What these solutions might look like can be seen in the smartPORT projects presented by the Hamburg Port Authority at the 29th World Ports Conference.



# Impressions Spectacular stage show and business network



The scene for yesterday's opening event was set by a spectacular stage show: A container on passage from Tokyo, where the IAPH is based, to Hamburg, the location for this year's event, took the audience on a voyage to the smartPORT in the truest sense of the word. With trampoline artists, drummers and light installations the scene was ablaze with colour and activity. Along with talks and debates on current issues affecting port operations all over the world, guests have an ideal opportunity to exchange views and experience with peers and particularly intensify their business network. The conference promotes this aspect specifically by providing an exhibition, trade fair and a varied, interesting and entertaining support program.







PHOTOS: HINRICH FRANCK

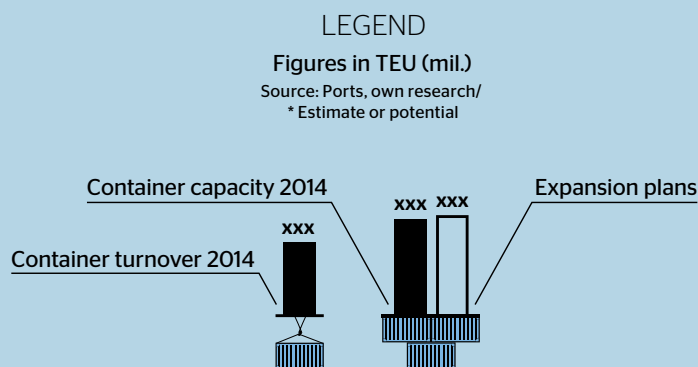
# Europe's ports on growth course

## Capacity investment for large container ships

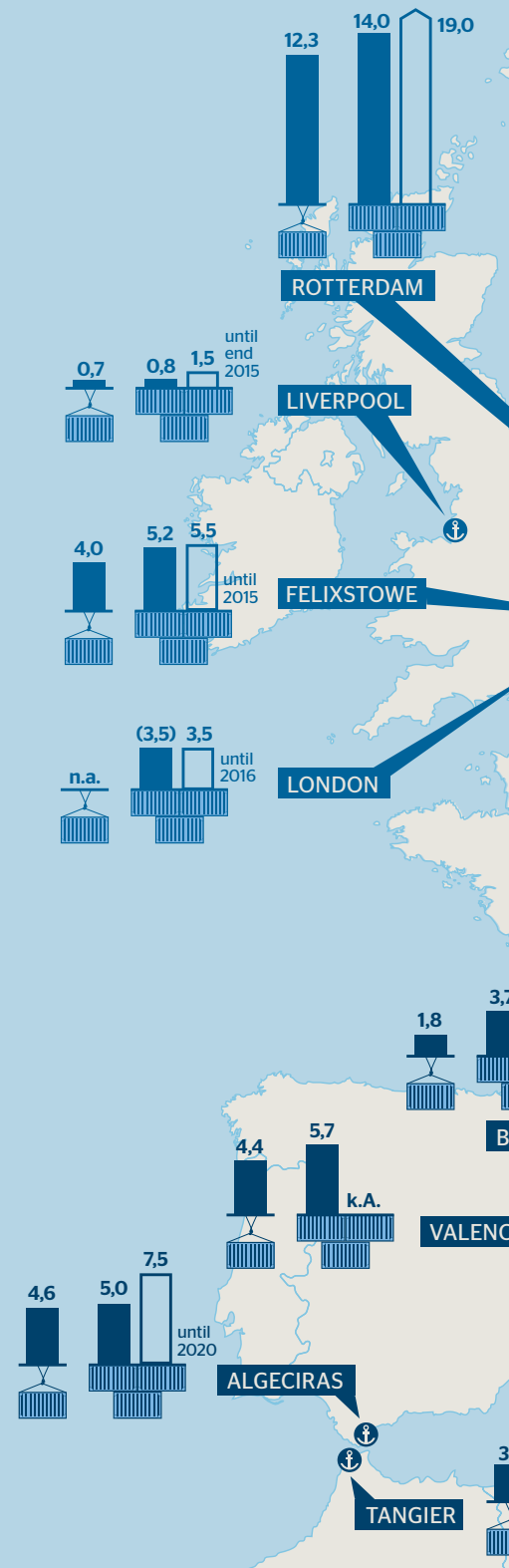
Europe's ports are stocking up. From Meerbusen in Finland to the warm waters of the Aegian, seaports are massively expanding their cargo handling capacities. A major reason for this is to be prepared for the new generation of ultra large container ships. The "Daily News" shows a European overview here.

The map shows 28 ports, including market leader Rotterdam, second largest Antwerp, Hamburg in third place, and newcomer Bronka. The new multi-purpose port in St. Petersburg will begin first phase operations in September after a 400 million euro investment program. It is planned to develop the location systematically in years to come with a view to optimise processes and vastly increase cargo handling capabilities. In phase one capacities of 200,000 TEU will be available. In further development stages, for which no dates are currently confirmed, two and later even five million TEU will be possible. For RoRo cargo handling an initial annual capacity of 2.4 million tonnes is foreseen.

The construction boom is founded on the hope of lasting growth in container shipping. For the current year experts from the Bremer Institut of Shipping Economics and Logistics (ISL) and consulting company Hackett Associates forecast growth of around three per cent for the European ports. Indeed ships' capacities are growing rapidly, primarily due to large size container vessels. Around 300 ships with 10,000 TEU and more are already in service and a further 165 ordered, according to market experts from Dynamar. 50 of these will be able to carry at least 19,000 TEU. Recently it has been rumoured that market leader Maersk Line intends to invest in the largest available units and order up to eleven 20,000 TEU container ships.



GRAPHIC: DVZ





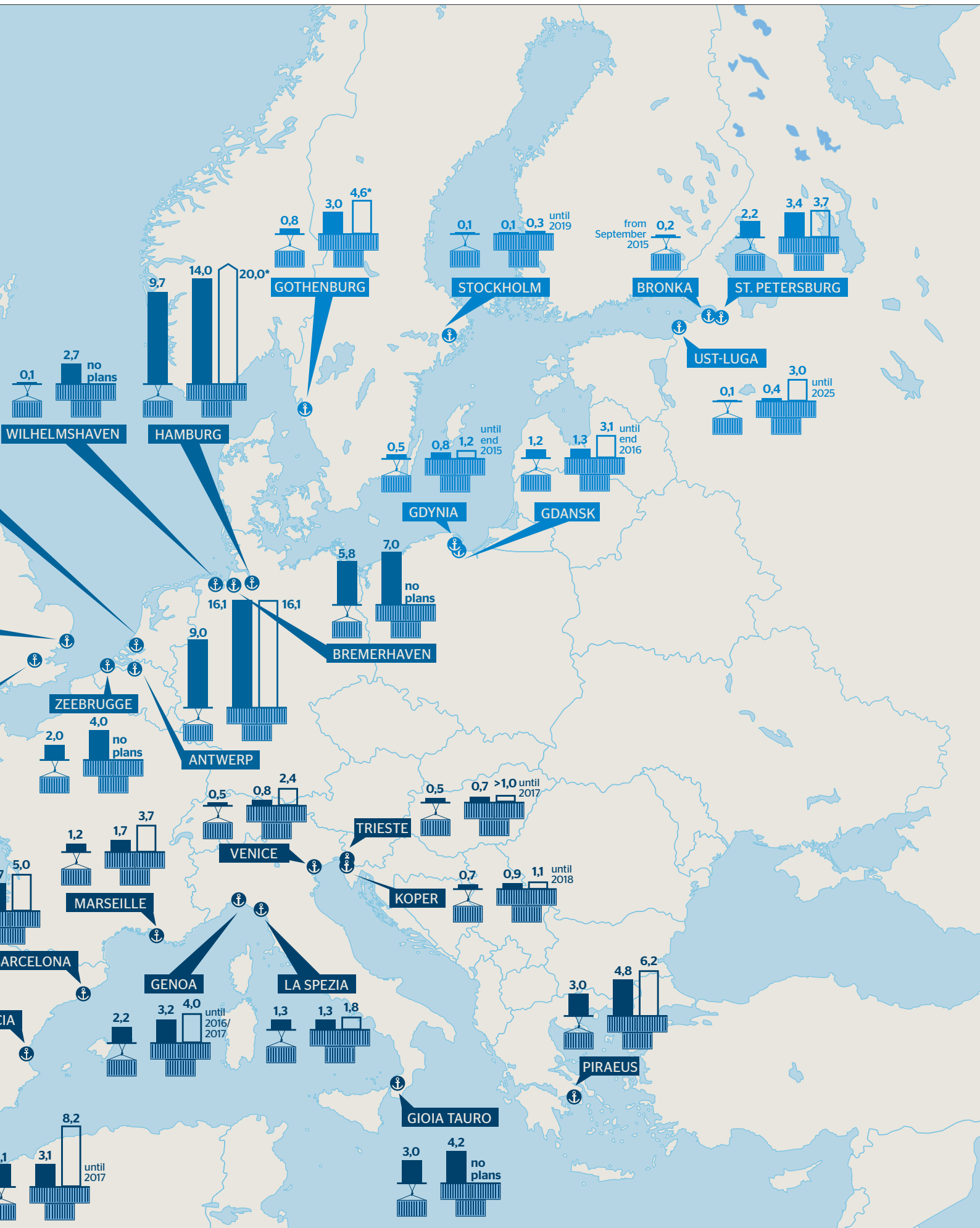




PHOTO: HPA

# Pioneering energy technology

Hamburgs Vessel Traffic Service Centre – One of the most modern facilities worldwide

The Port of Hamburg's Vessel Traffic Service Centre (VTS Centre) is one of the most modern facilities worldwide.

After a two-year renovation period, twelve months ago to the day Hamburg Port Authority (HPA) completed the refurbishment of the Vessel Traffic Service Centre (VTS Centre) at Bubendeyufer.

Frank Horch, Hamburg Minister for Economic Affairs, Jens Meier, Chairman of the Management Board of the Hamburg Port Authority (HPA), and Jörg Pollmann, Harbour Master, officially inaugurated the new building. Over one hundred guests were joined by hybrid tug „Eddy“, one of the most modern tugboats in service, to celebrate the occasion.

„In view of rising traffic volumes, ever larger container vessels and the need to ensure that the port maintains its competitive edge, refurbishment was necessary to bring the facility up to date with regard to technical, space-planning and energy-saving standards. The VTS Centre is a core piece of the Port of Hamburg. Whether container ships or dinghies – nothing in the Port of Hamburg escapes the notice of staff at the VTS Centre,” says Horch. From January 2012 to June 2014 the old building was extended and the technical equipment upgraded to meet the specific needs of the navigators and accommodate future developments.

“The VTS Centre, one of the most modern

vessel surveillance centres in the world, monitors and coordinates vessel traffic in the Port of Hamburg. At the same time, it is a vital element in the HPA's efforts to make our vision of a smartPORT become reality,” states HPA Chairman Meier.

One of the aims was to create an efficient and flexible work environment where people and technology come together to connect and collaborate. Before actual work commenced the HPA, in co-operation with the University of Hamburg and the Hamburg Informatik Technologie Center [Technology Centre for Computer Science], made detailed examinations of work processes and technical systems at the VTS Centre. The results of the joint project formed the basis for the spatial and technical design of the new construction.

„The new VTS Centre makes us well-placed for the future, enabling us to provide efficient and safe navigation in the Port of Hamburg. On top, we were able to significantly improve working conditions for our colleagues,” says Harbour Master Pollmann.

## Technical improvements

Many of the technical tools and equipment used at the nearly 6.5 million euro investment were specifically developed to meet the needs of VTS operators. The new VTS Centre boasts technically highly advanced work stations and state-of-the-art equipment. Amongst others, it features

a high-resolution large screen to display nautical information with interface to all nautical work stations. The information is supplied by the Port Monitor, a control station system.

A thermal ice storage system with heat pump to efficiently use waste heat has been installed in the new building on the Seemannshöft. Underground water pipes absorb the excess heat which, due to the relatively constant ambient temperature of the earth, can be stored slightly above freezing point and fed back to the heating system at the start of the heating season. If heat is withdrawn from the ice storage system, the liquid in the water pipes will freeze, releasing crystallisation energy that is used to cool technical equipment in the VTS Centre.

## About the VTS Centre

The VTS Centre on the Seemannshöft, including the radar centre to the east of the pilots' station on the Seemannshöft, was built from 1975 to 1977. As a field office of the Harbour Master's Division it is in charge of monitoring and regulating vessel traffic within the area of the port. A team of five VTS officers are on duty around the clock to ensure safe navigation on the waterways, supported by ultra modern traffic surveillance systems. During the refurbishment period the VTS Centre was housed in the emergency response VTS Centre at Vedder Damm.





## Programme Highlights Wednesday 3<sup>RD</sup>

### Challenges and Solutions for Smartports

**09.20 - 09.40 Why do Ports have to become Smart?**

Wim Elfrink, Cisco  
*Hall G, CCH*

**10.10 - 10.30 smartPORT Hamburg – “How to Dress for Success?”**

Jens Meier, Hamburg Port Authority  
*Hall G, CCH*

**10.30 - 10.45 An Arabian Perspective on Industry Trends: A View from the Bridge of DP World**

Patrick Bol, DP World  
*Hall G, CCH*

**11.05 - 12.00 Demands on intelligent Ports: Where is there a Need for Action?**

Discussion with Volker Worthmann, Wim Elfrink, Jens Meier, Patrick Bol, Michael Pal, José García de la Guía, Max Boodie  
*Hall G, CCH*

**13.15 - 13.35 International Environmental Standards at Sea – Development, Implementation and Monitoring. Consequences and Future Developments**

Monika Breuch-Moritz, Federal Maritime and Hydrographic Agency  
*Hall G, CCH*

**14.50 - 15.00 Global Transport Needs Sustainable Ports – LNG as Part of Greenports**

Robert Howe, Bremenports GmbH & Co. KG  
*Hall G, CCH*

**15.00 - 15.45 Alternative Actions in Times of the Energy Transition: How “Green” do Ports have to be?**

Discussion with Monika Breuch-Moritz, Henning Kinkhorst, Gun Rudeberg, Lutz Birke, Robert Howe, Max Boodie,  
*Hall G, CCH*

**18.30**

**Bali Night**  
*Beach Club Hamburg*



### TODAY'S SOFA TALK

**14.00 - 15.00**

**Bernd Appel, Managing Director, Lufthansa Industry Solutions**

**Jens Meier, Chairman of the Management Board Hamburg Port Authority**

**Lars Reger, CTO, NXP**



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