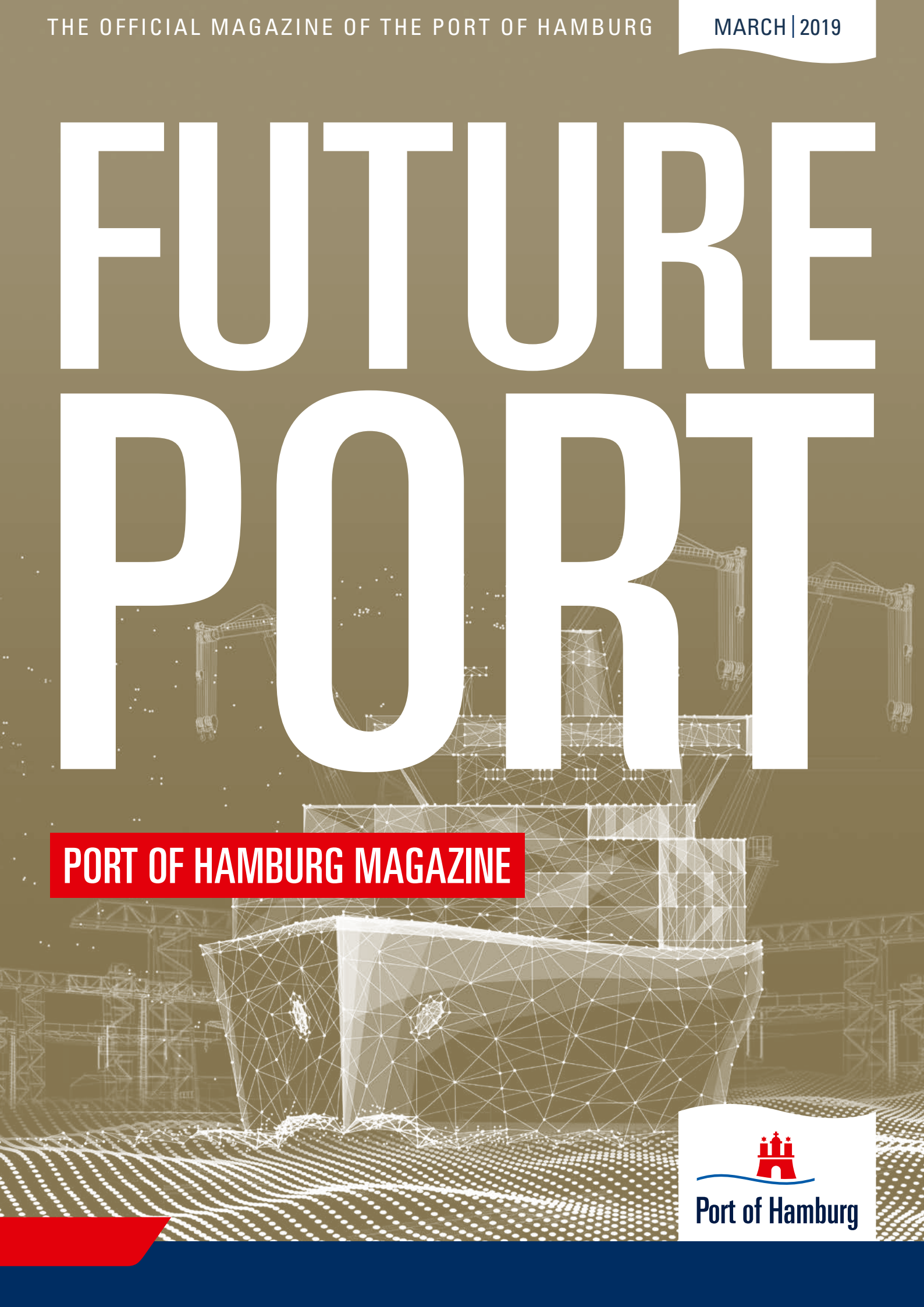
THE OFFICIAL MAGAZINE OF THE PORT OF HAMBURG

MARCH | 2019

FUTURE PORT



PORT OF HAMBURG MAGAZINE

Port of Hamburg

Dear readers,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Fairway adjustment, digitalization, modernization of infrastructure: The Port of Hamburg is not simply preparing for the future, but is already well on the way to actively shaping it. The second half of 2018 produced a distinct upturn. New liner services are setting course for Hamburg, and the start of the fairway adjustment is a positive signal for international shipping. The passing box on the Elbe between Wedel and Blankenese represents a major advance for the port. This upgrade alone will make safe clearance of 2,800 mega-ships a year a mathematical possibility, twice as many as at present.

Every infrastructural upgrade nowadays involves digitalization, underwater drones, autonomously operating trucks, paperless customs clearance – in the Port of Hamburg the future has already arrived. Today rail, road and waterborne transport in the port are already controlled digitally. 5G will be setting fresh benchmarks in networking port infrastructure and the players there. To investigate new technologies in transporting containers, HHLA – the largest terminal operator in the Port of Hamburg – has acquired a stake in the Hyperloop startup.

Shipping is going for innovation. Fewer pollutants, improved load factors and seamless communication with the ports are what shipowners aim for.

All players in the port industry are heavily engaged in research, improvement and negotiation. This issue of Port of Hamburg Magazine provides an overview of projects in the port heralding the future. We hope you will enjoy reading it.

Ingo Egloff and Axel Mattern
Joint CEOs Port of Hamburg Marketing


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TODAY RAIL, ROAD AND WATERBORNE TRANSPORT IN THE PORT ARE ALREADY CONTROLLED DIGITALLY. 5G WILL BE SETTING FRESH BENCHMARKS IN NETWORKING PORT INFRASTRUCTURE AND THE PLAYERS THERE.

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SCHRAMM
Ports & Logistics

Ein starker Verbund von 16 Hafen- und Logistikstandorten in Norddeutschland und Skandinavien

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Good prospects for the Port of Hamburg

Guest contribution by Senator Michael Westhagemann, Ministry of Economics, Transport and Innovation of the Free and Hanseatic City of Hamburg

The port can look forward to a good future: in mid-February work began on the Elbe fairway adjustment. Going forward, this will enable mega-containerships to reach the Port of Hamburg with greater flexibility and more fully exploit their maximum cargo capacities. Innovative digital solutions accelerate traffic and goods in the port and are opening up new business fields for maritime logistics.

More than 120 liner services connect the Port of Hamburg with hundreds of seaports throughout the world. It is the most important trading hub in Germany, handling throughput of 135 million tons of sea freight in 2018. The continued development of the port is an integral part of the Senate's economic policy.

Good accessibility is a precondition for maintaining and building up the handling level. With the fairway adjustment that should be completed by the end of 2021, we are enabling shipping lines to call Hamburg with better exploitation of their capacity. The port's hinterland infrastructure, which gives it a substantial edge over other ports in Northern Germany, will be

further improved. In 2018 the biggest rail port in Europe achieved a record result of 47 million tons for freight transported by rail. This clearly makes us Number One in Europe. Together with Deutsche Bahn and the federal transport ministry, we are pepping up the track network and technical facilities in and around Hamburg to be able to handle as much freight as possible by rail. Upgrading the A7, as well as the planned construction of the A26 West, will enhance road infrastructure with the port.

With Container Terminal Altenwerder, Hamburg possesses one of the most cutting-edge terminals in the world. A major part of operations is automated, including the guided vehicles that move containers between the quay wall and storage blocks. For the most part, these are already electrically propelled. When it comes to the use of innovative and digital solutions, the Port of Hamburg is playing in the Champions League. Under its 'smartPORT' umbrella, HPA has pooled numerous projects that test digital technologies for their process suitability. Thereafter these are introduced into day-to-day port operations. This is true, for example, of the automated slot management that coordinates truck movements to the terminals, ensuring an even spread throughout the day. In Digital Hub Logistics, established port and logistics companies are working side-by-side with start-ups and research institutes, some international, on the future of the industry.

To keep the city and the port singing from the same hymn sheet, both noise and polluting emissions in the port are being reduced step-by-step. The use of alternative energies is making the biggest contribution here. Since 2017, cruise ships have the opportunity of using shore-based energy at Cruise Center Altona. Containerships are testing high-performance LNG-Power-Packs as a climate-protective source of energy.

Over and above this, the Port of Hamburg is trailblazing the introduction of port fees dependent on emissions: clean ships pay less. This should give shipping companies an incentive to modernize their fleets and switch to alternative energies.

Its geographical position, with its excellent hinterland infrastructure, is and will remain an advantage for the Port of Hamburg. High-performance traffic routes, smart logistics solutions and increased use of low-emission energy sources and technology are a sound basis for our port to grow sustainably. Here in Hamburg, we are developing the port of the future. ■

Hamburg Tr

Overview of most important infrastructure projects

RADER HOCHBRÜCKE
Rebuilding Rade viaduct – Construction of four-lane bridge with widened hard shoulder

UPGRADING KIEL CANAL
Upgrading eastern reach as well as reconstruction of canal locks

WESTERN CONTINUATION OF A20 (HAMBURG'S WESTERN BYPASS)
New four-lane development of Baltic autobahn A20 from Bad Segeberg to A26

UPGRADING A23
Six-lane upgrade of A23 between Eidelstedt and Tornesch

FAIRWAY ADJUSTMENT OF LOWER AND OUTER ELBE
Adjusting fairway of Lower & Outer Elbe to draft of today's mega-containerships, up to 14.50 m, as well as their width

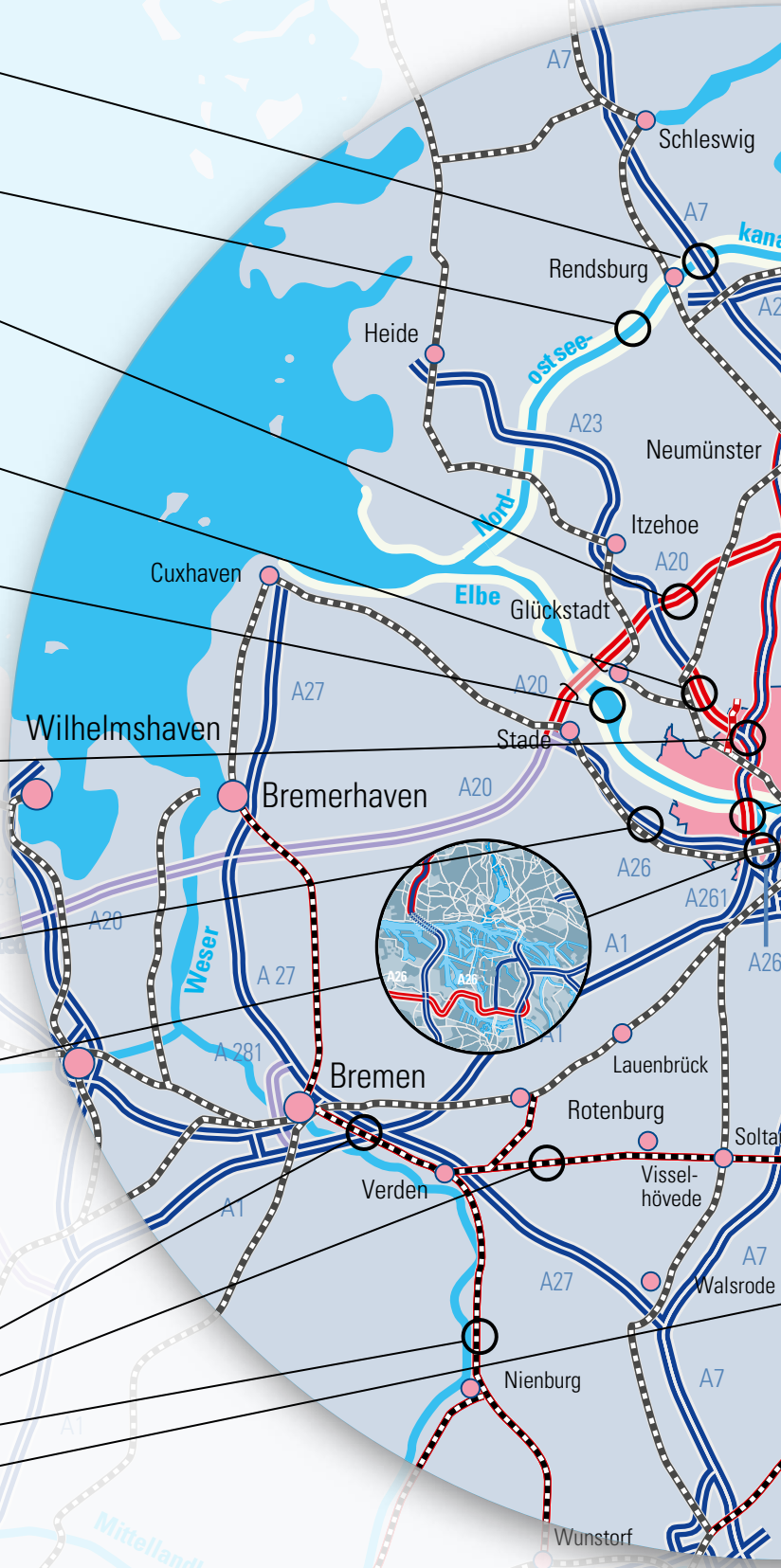
NORTHERN WIDENING OF A7
Eight-lane upgrade of A7 between Elbe Tunnel & HH-Schnelsen-Nord autobahn junction and six-lane upgrade between Schnelsen & Bordesholm

COMPLETION OF A26 WEST
New continuous four-lane development of A26 connecting to A7 & A26 East

CONSTRUCTION OF A26 EAST
New four-lane autobahn development between A7 & A1 in southern port area, connecting Port of Hamburg to autobahn network

OPTIMIZED ALPHA E ALTERNATIVE FOR EXISTING INFRASTRUCTURE
Expanding rail capacity in Hannover-Bremen-Hamburg triangle with following measures:

- Bremerhaven–Bremen–Langwedel
- Langwedel–Uelzen
- Rotenburg–Verden–Minden/Wunstorf
- Expanding/New development Hamburg–Hannover



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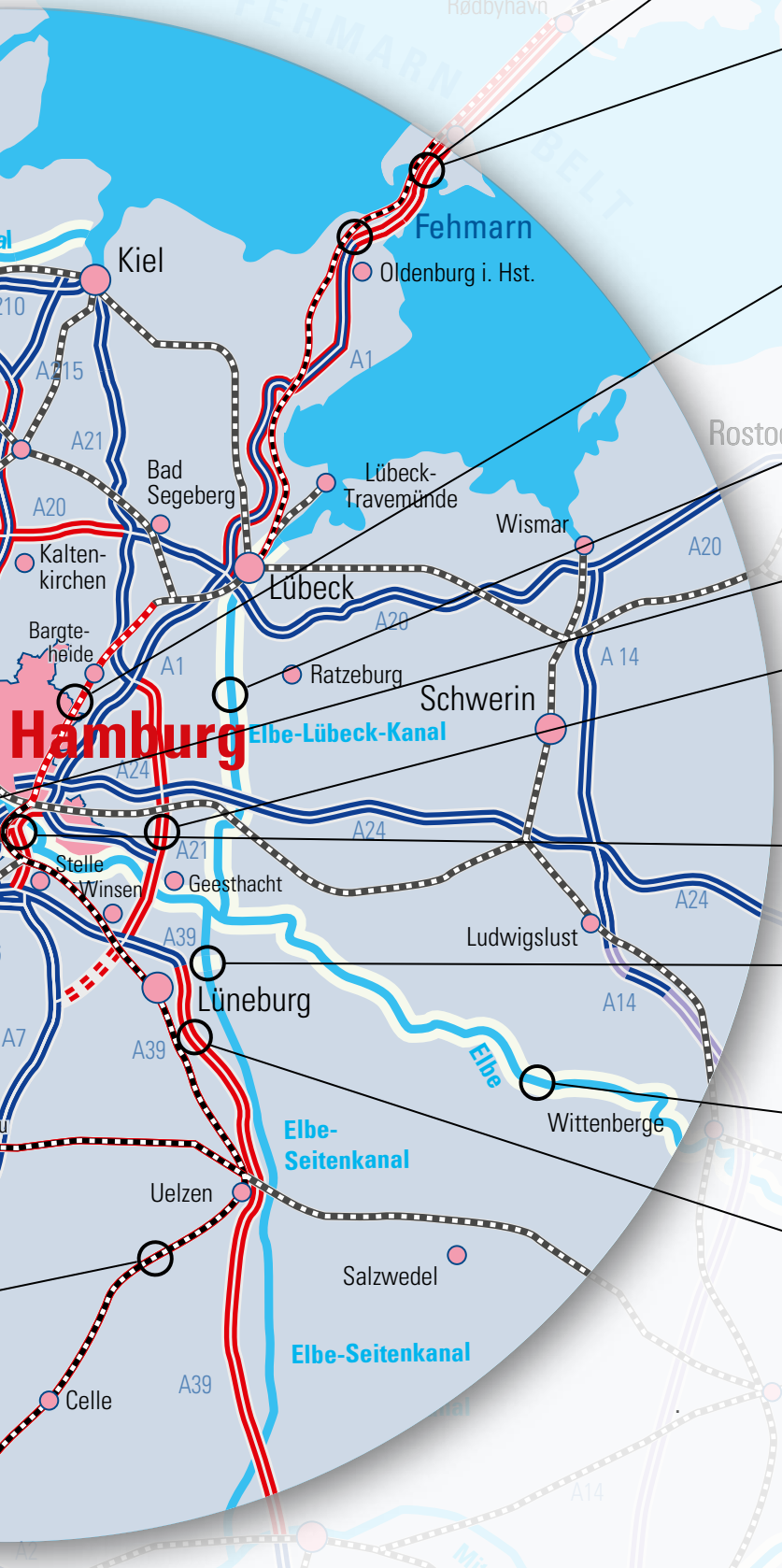


CONSTRUCTION OF FEHMARN BELT TUNNEL

Construction of Fehmarn Belt Tunnel between Puttgarden & Rødby with four-lane autobahn and double-track rail line

CONSTRUCTION OF FEHMARN BELT HINTERLAND LINKS

Double-track expansion / new development of rail line between Lübeck & Puttgarden – including commensurate crossing of Fehmarn Sound & continuous four-lane expansion of A1 on same stretch

CONSTRUCTION OF S4

Construction of two separate rapid transit (S-Bahn) tracks between Hamburg & Ahrensburg to separate slow local passenger traffic from faster long-distance passenger & freight traffic, as well as relieving Hamburg Central Station

UPGRADING ELBE-LÜBECK CANAL

Upgrading stretches of Elbe-Lübeck Canal from Lübeck to Elbe, plus restoration of its six locks

SOUTHERN UPGRADE OF A7

Eight-lane upgrade of Elbmarsch elevated autobahn

SOUTHERN CONTINUATION OF A21 (HAMBURG'S EASTERN BYPASS)

Four-lane upgrade of existing B404 main road to A21 between Bargteheide & A39, possible extension to A7

SOUTHERN UPGRADE OF A1

Eight-lane upgrade of A1 between HH-Südost & Horster Dreieck autobahn interchanges

REPLACEMENT FOR SCHARNEBECK SHIPS' LIFT

Replacement of a lock in Elbe lateral canal with trough length of 225 m

IMPLEMENTATION OF ELBE MASTER PLAN

Implementation of Elbe master plan creating stable water depth for inland shipping and ports

CONSTRUCTION OF A39

Four-lane new development of A39 between Lüneburg & Wolfsburg

Important infrastructure projects for Hamburg

- New Construction needs – Autobahn / Railway lines
- Upgrading needs – Autobahn / Railway lines

- Autobahn – Actual status
- Autobahn – Planned
- Supra-regional rail lines

Fairway adjustment to simplify Elbe traffic

Germany's largest universal port possesses 75 terminals that handle 18,000 ocean-going ships and inland waterway craft per year. For the Elbe and port pilots, the 65 percent increase over the past decade in calls by ULVs – Ultra-Large Vessels – represents a challenge. Whereas not quite 600 ULVs berthed in Hamburg in 2008, meanwhile more than 1,000 do so annually.

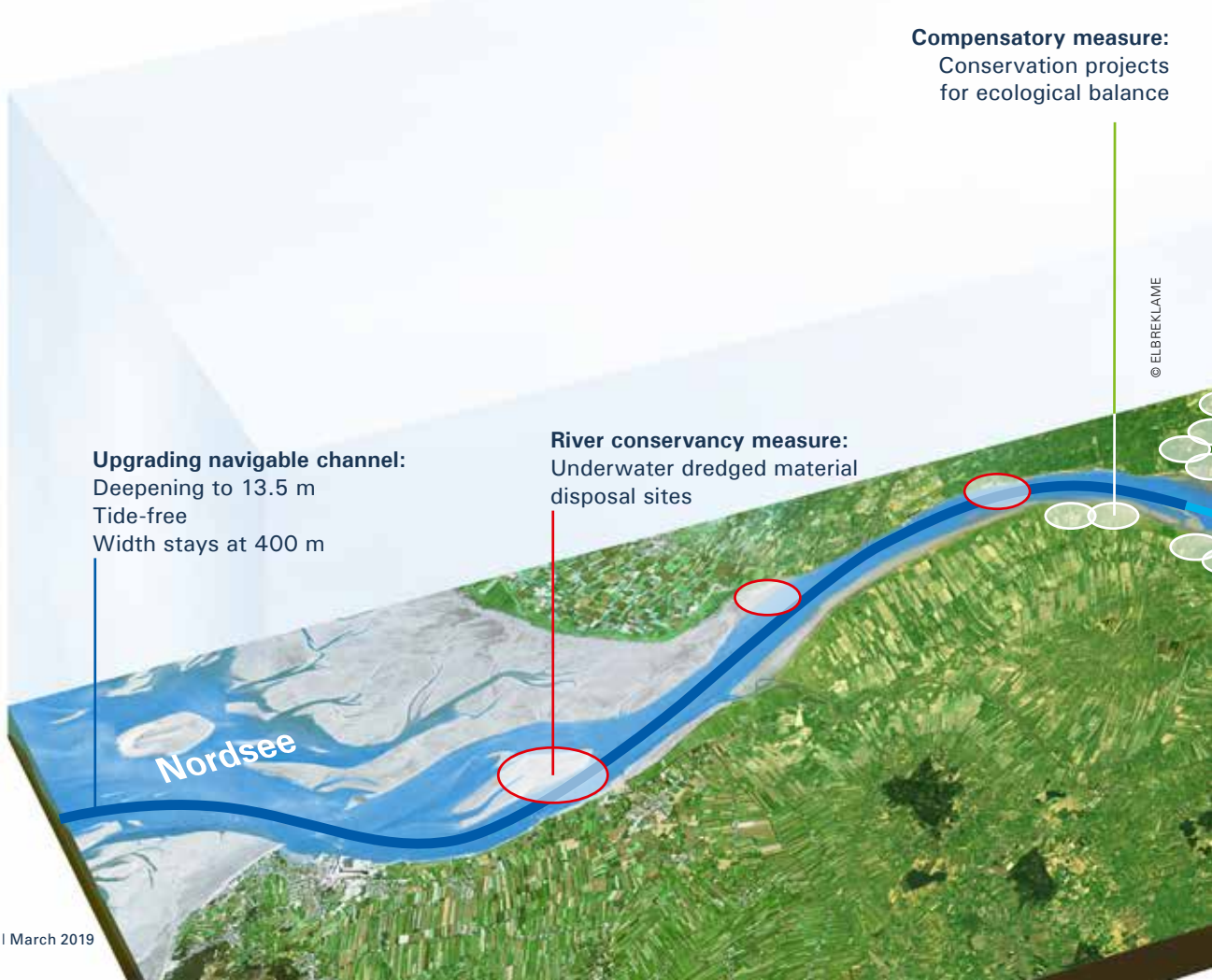
These are vessels with a length of over 330 metres or a breadth of more than 45 metres. Along the 120-kilometre stretch of the Elbe between the mouth of the river and the Port of Hamburg boundary, they are subject to numerous regulations that must be strictly observed. Jörg Pollmann, Hamburg's Port Captain, is among those who feel that with a growing number of traffic situations needing to be regulated, maximum safety and most efficient use of the river are only attainable through prescient control of movement by all involved in the traffic. Further intensification of cooperation between those responsible for traffic control in the Federal Waterways and Shipping Administration, Hamburg Port Authority – HPA, Elbe and port pilots, along with the Hamburg Vessel Coordination Center - HVCC, will in future also embrace vessels and pilot stations in the German Bight in mobile data interchange at an early stage. For Pollmann, port traffic that is increasingly controlled digitally will ultimately create a 'Port Traffic Center' providing data flow plus intelligent networking of all transport carriers and traffic flows, while allowing for infrastructure and logistics movements.

PASSING BOX ENDS ONE-WAY TRAFFIC

On account of their widths, mega-containerships currently in service, as well as larger bulk carriers, must not encounter each other between Glückstadt and the Port of Hamburg. To avoid the delays this causes for shipping, as part of fairway adjustment of the Lower and Outer Elbe the channel between Wedel and Blankenese is to be broadened to 385 metres. With a total length of seven kilometres and due for completion by the end of this year, the resultant 'passing box' between Wedel and Blankenese will substantially raise the capacity of the waterway. Long before completion of fairway adjustment, mathematically this part of the programme will allow an extra 2,800 mega-ships per year to reach the Port of Hamburg, or more than twice as many as at present.

ULVS ARE VESSELS WITH A LENGTH OF OVER 330 METRES OR A BREADTH OF MORE THAN 45 METRES

To be prepared in advance for further developments on ship size, HPA, GDWS and Elbe and port pilots are cooperating with shipowners on simulations to facilitate studies setting possible call parameters for, e.g., containerships with a capacity of 23,000 TEU. In the course of these studies, calls by such vessels in the Port of Hamburg are replicated in the ship operation simulator. The findings of such simulations are used to produce call pa-



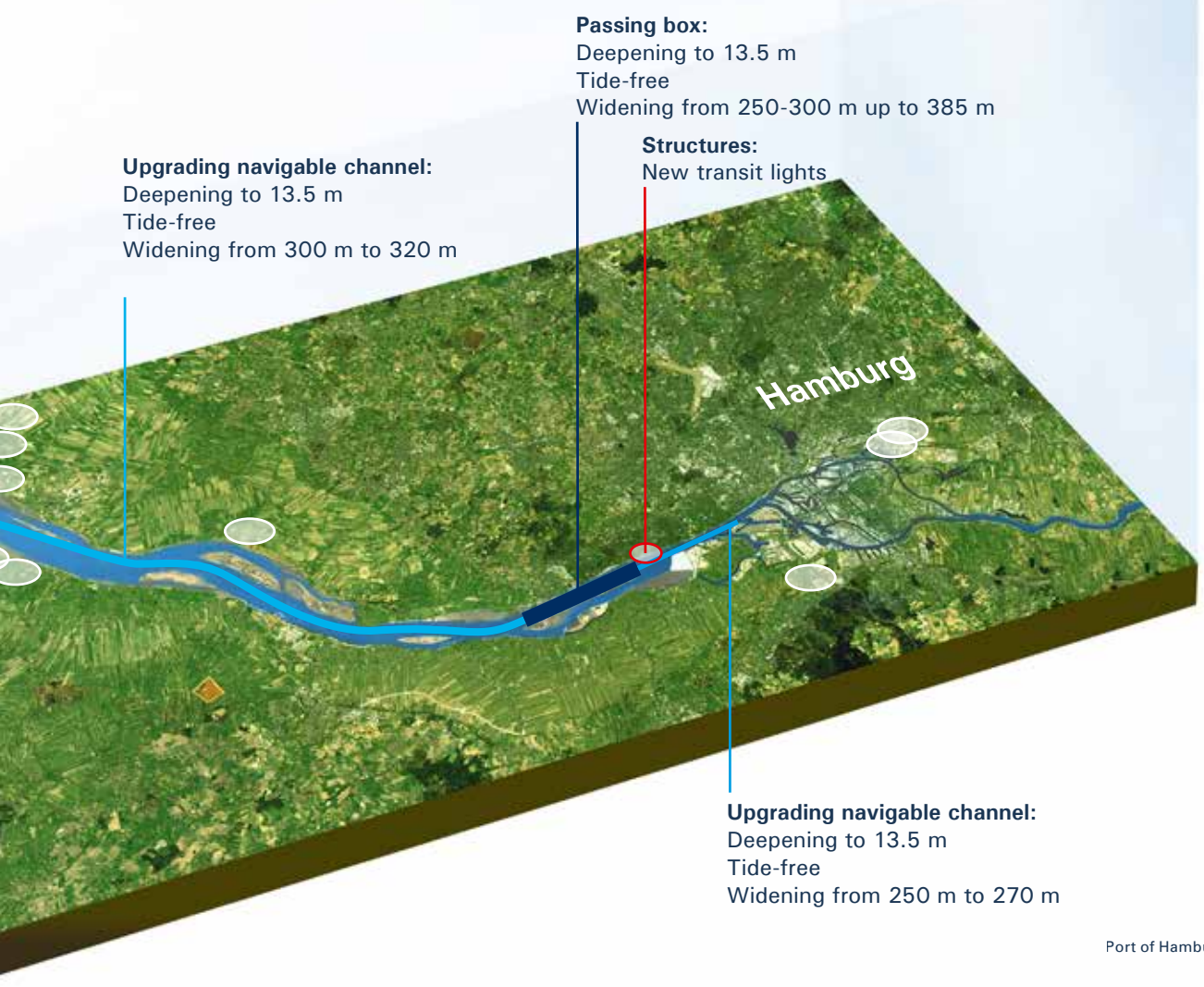
rameters, e.g. wind and tide restrictions, or the number of tugs required for manoeuvring on berthing and sailing. Business in the Port of Hamburg anticipates completion of fairway adjustment during summer 2021.

PRECISE SCHEDULE PLANNING IS ESSENTIAL

Since 2015 the Hamburg Vessel Coordination Center – HVCC has ensured optimized passage planning for mega-ships in the ULV bracket. These include bulk carriers and cruise ships in addition to containerships. Set up by terminal operators EUROGATE and HHLA, Nautical Terminal Coordination – NTC provides operational coordination between terminals for mega-ship clearance. The FLZ, or Feeder Logistics Center, looks after rotation planning, approach control and stowage planning for feederships and inland waterway craft in the Port of Hamburg. Through the HVCC data platform, all partner shipowners receive inbound passage plans commencing at a ship's arrival in a previous port, e.g. Southampton. Precise schedule planning enables the ship's speed to be optimally determined for the Elbe passage and arrival at the terminal in Hamburg. For instance, reduction of a vessel's speed for the 200-nautical mile Rotterdam – Hamburg passage from 18 to 14 knots produces a 22-ton saving in bunkers and a 66-ton reduction in CO2 emissions. Data provided by HVCC also includes outbound-passage plans for optimized transit from Hamburg to the next ports. In 2017 HVCC already assisted more than 3000 ships prior to arrival in and departure from the Port of Hamburg. Other ports, Hamburg terminals and shipping companies that cooperate are all involved in such coordination.

MORE CARGO FOR CONTAINERSHIPS

Ingo Egloff and Axel Mattern, Joint CEOs of Port of Hamburg Marketing, welcome the willingness of all the institutions and companies participating in traffic control to expand data and information exchange with one another further. "It is vital that fairway adjustment should now be rapidly implemented and quickly lead next year to meaningful simplification of access to the Port of Hamburg for shipping and port customers," says Mattern. Once implemented, deepening by around one metre will also be a major gain for the port, enabling containerships in future to bring around 1,800 TEU more cargo to Hamburg and/or sail with the same increased volume. "Our port customers throughout the world are eagerly waiting for this," adds Egloff, his Executive Board colleague. For these two port experts, the long awaited start on fairway adjustment is creating a positive upward swing in the mood among their port customers in Germany and internationally. ■



LISTED BUILDING AT FORMER WATERWORKS
ON BILLWERDER ISLAND SITE

© Kai Gerullis

New habitat for rare plant

Even away from the Elbe channel, the fairway adjustment project is fast taking shape. Since November 2018 excavators have also been under way on the island of Billwerder – directly alongside Autobahn 1 and within sight of the North Elbe Bridges. An important compensatory measure is being put in place between Holzhafen and the mouth of the Dove Elbe.

Here a derelict industrial site is sensitively being converted into alluvial woodland. A wilderness is becoming a first-rate nature reserve – where Hamburg Port Authority – HPA is creating a new habitat for the hemlock water dropwort.

"On this site we are fulfilling a condition laid down by the Federal Administrative Court, which sees the hemlock water dropwort as endangered and demanded a compensatory measure from us," said Jörg Oellerich, HPA manager responsible for the Elbe fairway adjustment. In two former drinking water basins of what used to be known as Hamburg Waterworks, each roughly the size of four football pitches, within a few years extensive river meadows should form on sandy little islets. This will offer an ideal habitat for the rare umbelliferae or Queen Anne's lace. Nevertheless, the hemlock water dropwort thrives solely in the Elbe basin under tidal influence. The two basins therefore need to be connected via an existing ditch with the Billwerder Bucht that is subject to tidal flows. And good progress is being made here: Site roads were already laid during the winter, and the two basins freed from fallen trees. Initial preparatory measures have also been implemented at the inlet. Yet meanwhile the site is totally silent – one additional unusual feature of the measure is that any construction work on the island of Billwerder must be confined to the winter half of the year.

From spring until after autumn has started, this refuge belongs solely to deer, beavers and a colony of cormorants – which is a special challenge for the HPA team. "We have divided the project into ten stages of construction that we shall spread over three winters," says Carmen Eggers, who has taken charge of the project for the construction stage. Along with her teams, she is immersed in planning when the next step will follow, after September 2019, that is – and the first basin can be laid out.

That will involve removal of the existing tiles on the bottom, digging channels, and laying out islands and mudflats. The concrete edges will be retained and so will the picturesque little pumping stations on the margin. "Over one century old, the works is a listed building and naturally we shall treat it accordingly. In addition, we aim to preserve the stock of mature trees. Everything here belongs together," says Marc Kindermann, who planned this part of the project for HPA.

The first basin should be remodelled and connected to the tide by end-February 2020. Also reconstructed, the second will be connected to the first in winter 2020/21. The hemlock water dropwort will then be introduced in the form of seeds and grown plants, and willow cuttings will be planted on some islands. HPA aims to complete this ambitious project by spring 2021 – with nature looking after the rest. It will therefore be only logical for the transformed basins to be declared a European Nature Reserve immediately they are completed. ■

THE HEMLOCK WATER DROPWORT ONLY GROWS UNDER TIDAL INFLUENCE

© Klaus Janke

Port of Hamburg trailblazing digital integration

Underwater drones, driverless trucks, paperless customs clearance – Tomorrow has already arrived today in the Port of Hamburg.

For Dr. Sebastian Saxe, Chief Digital Officer of Hamburg Port Authority – HPA, digitalization is no topic for the world of tomorrow: Today the traffic in the port, whether on rail, water or road is digitally controlled. "These learning experiences are important for the whole city and applicable to the complex transport system," says Saxe. Next year, artificial intelligence will already be a major topic in channelling traffic. The 'Green4Transport' project should interact with intelligent traffic lights, guiding trucks across intersections in columns. With the introduction of 5G in the port test area, this will facilitate the implementation of further visionary projects. This infrastructure is necessary to set out on our way forward with all of the port players.

But, where drones are concerned, or to give them their technical name, UAVs (unmanned aerial vehicles) are impossible to overlook in the port. HPA is already successfully using UAVs for surveying and inspecting buildings and quay-walls. For example, drones are being flown around the Köhlbrand bridge supports, checking for damage. Moving forward, it is also perfectly conceivable that underwater drones will monitor sedimentary deposits in the River Elbe, or automated drone systems used for maintenance or emergency management. HHLA, too, is successfully using drones – automated ones – on its terminals. Jan Bovermann, Head of Corporate Development, stresses that a continuous advance of automation can only be achieved by integrated, inclusive thinking. "A company's digital culture cannot be measured by how many block chain projects are being set up. Vision, culture and cooperation are the decisive factors. This also means involving staff, customers, service providers and suppliers to an equal extent," states Bovermann.

Ulrich Wrage, CEO of Dakosy, the IT service provider specialized in logistics, places the accent in the Port of Hamburg on its digital culture. In the meantime, the port has reached a digitalization level of 95 percent. Some 2,000 companies are involved. This result has been mainly achieved through trust.

THE HAMBURG VESSEL COORDINATION CENTER – HVCC NETWORKS SHIPPING COMPANIES AND TERMINALS TO OPTIMIZE SHIP HANDLING

All of the companies involved in the transport chain have been linked to the Dakosy platforms to integrate and accelerate processes. "Dakosy's secret has been in involving all players, including those who have been in direct competition with one another," says Wrage. This may have led to rivalry now being a thing of the past: Customs clearance is set in motion digitally while the container is still approaching Hamburg.

Just how well networking functions between

companies and institutions in Hamburg is demonstrated by Hamburg Vessel Coordination Center - HVCC. Gerald Hirt, CEO, looks back with pride at the last two years. Shipping companies, nautical HQs, competing terminals and, more recently, inland shipping all profit from the interface. HVCC consolidates the relevant data from the various players, interprets it, and compiles a forecast overview of vessels approaching the Port of Hamburg: This is then made available to all those involved. Ship clearance in the Port of Hamburg is now running even more seamlessly.

"Other ports are not sleeping," stresses Saxe. In recent years, the speed of technological developments has continually increased and is still continuing to do so. "The shippers set the beat," adds Wrage. Global trading groups like Amazon and Alibaba, "take a very close look at just what a port can, or cannot, do." Being the international innovation hub for digital business transformation of logistics on land, at sea and in the air, Digital Hub Logistics Hamburg will add momentum to 'Port 4.0'. CEO Johannes Berg hopes that the next major impetus for innovation in logistics will come from Hamburg. ■

Hamburg hosting global mobility and logistics congress in 2021

The Free and Hanseatic City of Hamburg is hosting the world congress ITS - Intelligent Transport Systems and Services in 2021. Together with the Federal Ministry of Transport and Digital Infrastructure – BMVI, the City of Hamburg will be running the eighth ITS World Congress in the redeveloped Congress Centre Hamburg, the exhibition centre and adjacent city districts from 11 to 15 October 2021. To ensure the success of the 2021 ITS World Congress, the City-State established a 100% subsidiary - ITS Hamburg 2021 GmbH at the beginning of 2018.

The Hanseatic City-State was awarded the congress against numerous other cities in hard international competition. Hamburg had already applied in April 2016. Some 10,000 experts from the fields of transport and IT, as well as the worlds of business, university and politics, are expected on the River Elbe.

HHLA opens ‘Gateway to Future’ in port

Interview with Angela Titzrath, Chairwoman of HHLA’s Executive Board

Port of Hamburg Magazine: Frau Titzrath, can you help us to solve an apparent contradiction?
Titzrath: Gladly. Which contradiction then?

Why is the development of the Port of Hamburg described as ‘stagnating’ and ‘has lost contact to the competition’, even though HHLA, as the biggest company in the port, is very successful?
The long legal dispute about the Elbe fairway adjustment has damaged the port in general. Linked to this, there is less acceptance for the Port in the city, in spite of it safeguarding some 160,000 jobs and generating an annual added value in excess of 600 million euros. Add to this that the port has not profited from growth in the container business as have other ports in the North Range. In any event, counting boxes is a purely quantitative view that may be suitable for marketing purposes, but says very little about the quality of a port. The Port of Hamburg is, just as before, one of the most advanced, high performance ports, with HHLA having a weighty share in it.

The Elbe navigable channel is now being deepened and widened. What does this mean for the future of the Port of Hamburg?
Stable navigable accessibility is an absolute precondition for the port to assert its position in competition among the European seaports, and then to strengthen it. We assume that the fairway adjustment will lead to a moderate growth in quantities handled. The widening and deepening of the Elbe navigable channel is however only one of a number of essential preconditions for the successful future of the port. Over and above that, further investments are needed in the port and transport infrastructure.

How realistic is asking for more money for the port when, in the meantime, a widely held view exists that Hamburg has to be more than a port and a trading centre?

EVEN IN THE AGE OF DIGITALIZATION, THERE'S NO SUBSTITUTE FOR PERSONAL CONTACT

This view is not exactly new. As early as 1983, the then First Mayor, Klaus von Dohnanyi, pointed out that the future of Hamburg and the port cannot only lie on the water, but more strongly on land. I share this view. The port is well suited as a testbed for digital innovation. However, we do have to take one thing into account: The Port of Hamburg is not only of local relevance. It is of systemic importance to Germany as an industrial nation, since a quarter of all German foreign trade is cleared through the port.

Just how important the topic of 'the future' is for HHLA, can be seen in the marketing claim 'Gateway to the Future'. What does this really mean for you?

It is our strategic aim to strengthen HHLA's creative power and sustainability. Together with our customers, we want to develop the logistics and digital hubs along the transport flows of the future. We are not thinking in terms of predetermined pathways, but free from any bias: whether on water, rail, road, glass-fibre or something completely different such as Hyperloop technology – Our customers' aims and requirements will determine our action.

It sounds as if HHLA is already preparing for the post-container era.

The container will continue to play an important role in the transport of goods. With 3D printing and drone technology, additional potential is opening up for manufacturing products and then shipping them more efficiently than in the customary way by container.

Two years ago you announced that HHLA would be the motor for digital change in the port. How well is this motor performing in the meantime?

Our motor is running at a respectable number of revs. In drone technology, we are developing our own solutions, and using the expertise of a Hamburg start-up that we also hold a stake in. We are cooperating with truck manufacturer MAN in an intuitive mobility project. Our vocational trainees are involved with 3D printing and digital welding. We are also active in the Digital Hub initiated by the

Hamburg Senate. In premises belonging to HHLA Real Estate, in the historic Speicherstadt, this is putting horse-power on the road.

HHLA's announcement of founding a joint venture with the US based Hyperloop Transportation Technologies has received international attention. Some people think that it was only a nice PR gag. Will containers soon be travelling close to the speed of sound?
Why not? When, in December 1835, the first train ran between Nuremberg and Fürth, no one could have imagined that trains would one day reach speeds above 200 kilometres per hour. Our joint-venture partner HTT has already successfully tested the first components for transporting people. Now it's a question of transferring the technology to freight transport. At a HHLA container terminal in the Port of Hamburg, together we want to develop a type of terminus, where sea containers can be sent into, or emerge from, a tube system. That HTT should choose Hamburg as a test bed, demonstrates once again how attractive the city and port are for innovation.

What is HHLA's intention with this joint venture in the near future?
Intelligent mobility solutions, such as Hyperloop technology, can make a significant contribution to relieving transport infrastructure around the port. This in turn would mean reducing air pollution. Our aim is to develop this technology.

The port is recognized as the main cause of excessive air pollution in Hamburg. What can a company like HHLA do for climate protection?
Firstly, I share the view of First Mayor, Peter Tschentscher, that climate policy must not be hostile to growth. Bans, rules and regulations are unproductive. Industry is part of the climate protection solution. For many years, as part of its sustainability business model, HHLA has been making great efforts that have also been recognized by the independent German sustainability council. Our terminal in Altenwerder was the first worldwide to be certified as a 'zero emissions' terminal. The services offered by our rail subsidiary Metrans are geared towards shifting more freight traffic from road to rail. ■

SKYLINE OF 'DIGITALIZED' CITY OF SHANGHAI

"There are no difficulties with gas propulsion"

Interview with Ralf Nagel, Chief Executive Officer of the VDR – German Shipowners' Association, on IMO 2020, alternative propulsion systems and the Hong Kong Convention.

Port of Hamburg Magazine: Herr Nagel, the IMO – International Maritime Organization has laid down that from 2020, worldwide the proportion of sulphur in marine fuels may no longer exceed a maximum of 0.5 percent. What does this mean for shipowners?

Nagel: The new cap for sulphur is a further step towards withdrawal from heavy oil of the usual type, and is completely accepted by the industry. Some companies are equipping their vessels with exhaust gas cleaning units known as scrubbers. Others will be using a mixture of oils that ultimately only contain a maximum 0.5 percent of sulphur, or MDO - Marine Diesel Oil, which contains substantially less sulphur but is far costlier compared to heavy oil. From March 2020 ships without scrubbers may no longer transport heavy oil.

What will happen with the heavy oil that many vessels will still be holding until then?

Well, that's more complicated than an outsider can imagine. After all, there is capital tied up there. It's obvious that fresh oil cannot simply be poured into tanks that previously contained old, heavy oil. The challenges have been recognized and we must meet them. Full stop! It is essential that port states should

**VISIONS OF FUTURE SHIPPING:
SHIP CONVOY CONCEPT**

rigorously check whether everybody is playing by the rules. Anybody assuming that they may continue to use heavy oil because they won't be discovered would have a competitive advantage worth millions. That must not happen.

Alternative fuels, gas propulsion for example, are increasingly under discussion. What are the difficulties there?
There are no difficulties with gas propulsion. This is an established, manageable, good and proven technology that companies are happy to use. However, there is still no global, universal network of filling stations or bunker vessels for LNG – Liquefied Natural Gas. Nevertheless, we regard LNG as a very important fuel, emitting neither fine dust particles nor NOx, and cutting CO2 emissions by around one-third.

Do other alternatives exist? In the automobile sector the focus just now is on electric propulsion.
That's scarcely an alternative for global shipping across the world's oceans. For shorter routes, ferries for instance, E-propulsion systems are gaining ground. Some people are working on the subject of hydrogen. If this could be produced from power sources derived from such CO2-free power as wind energy, then in the long term that could mean no-emission shipping.

Germany endorsed the Hong Kong Convention for safe and environment-friendly ship recycling …
Yes, at long last! That's an important political signal. We hope that ship-recycling nations like India, Bangladesh and Pakistan will sign up so that this can become the law actually in force. Irrespective of that, over 30 of the ship recycling yards located in India are already observing the Hong Kong Convention as standard. As this comes into force, yards not observing this agreement will no longer be in the market.

Containerships are constantly becoming larger. Only just recently, the 'MSC Zoe' lost around 270 containers in the North Sea. Are these ships still safe?
A dramatic and most satisfactory downturn in shipping accidents has occurred in recent decades. IMO experts are analyzing the 'MSC Zoe' incident and will then be considering whether any changes are required in regulations or technology. It was very good that there was an emergency control centre to ensure joint, coordinated accident management.

What is the first thing to be done on the subject of digitalization?
The foremost aim must be to achieve digitalization of the complete maritime transport chain. It will be of little use for a ship to be optimized digitally, if she is then unable to interchange data with the port. Global technological standards ensuring that systems are mutually compatible are not simply lacking in shipping, but also in the ports. ■

Digital transformation: Opportunities for the working world

The Northern Institute of Technology Management – NIT focuses on change caused by increasing digitalization in tomorrow's working world, and the new challenges it will bring.

Automation of processes, development of new technologies and the application of artificial intelligence are omnipresent in our digital world. Already today, we can no longer imagine being without the ever-growing range on offer. From the customer viewpoint it can be quicker, more convenient and simpler. Price comparisons are being simplified and lowest-cost products more rapidly found. This is putting businesses under increasing pressure. However, these trends also highlight opportunities for scrutinizing existing business models and creating new ones.

Verena Fritzsche
CEO NIT Northern Institute of Technology Management

GONE ARE THE HIERARCHIES OF YESTERDAY: WHAT WILL BE THE HALLMARK OF TOMORROW'S MANAGERS?

Companies are more than ever facing the challenge of having to adapt their approach to work to actual developments. One stumbles regularly over terms like 'Work 4.0' or 'digital work', but what does this mean in concrete terms for individual companies? Through digitalization, tasks are changing and becoming more complex. According to a 2017 study by the BVL – German Federal Logistics Association – leaders will increasingly be confronted by strategic issues. This means that they will carry more responsibility, must act flexibly and make decisions quickly. Therefore it follows that in the first place, the top management tier needs to understand the new trends and developments, in order to use them in their companies and to drive change. However, often the absolute basics are lacking, since many leaders have had little exposure to digital opportunities. To remedy this, external input is helpful to facilitate appropriate learning experiences. Real leaders do not just have to continue developing themselves, but also have to carry staff with them, opening their minds to new developments. Culture change has to come, since speed and a flat hierarchy can mean an enormous competitive advantage.

START-UPS SHAPING THE FUTURE

This can be seen especially well in the world of start-ups. According to the Federal Ministry for Economic Affairs and Energy, every fifth start-up is involved in the application of new digital technologies and 15 percent of them enter the market with an innovative product. They are the drivers of innovation, carrying the hopes for the digital future. When they have to keep

WORKSHOPS SUCH AS 'DESIGN THINKING' TRY OUT NEW APPROACHES

pace with start-ups, established corporations are pushed to the limit,. To establish start-up spirit and thinking in corporate processes, old business models have to be discarded and comfort zones abandoned.

THE KEY – AGILITY AND LIFELONG LEARNING

To prepare the upcoming generations for digital change, timely investment in future-oriented dual education is needed. Futurologists are forecasting that many professions, as we know them today, will soon no longer exist. A rethink is needed in the vocational training of future skilled workers, so that they can competently and flexibly handle the challenges of digital change. Staff need to develop the ability to adapt quickly to new developments, taking on responsibility for their own on-going training to make sure that they do not lose out. It is up to management to ensure the right framework for their staff.

CREATING THE RIGHT ENVIRONMENT FOR EXPERIMENTATION

Digital innovations do not just appear from nowhere, but require development. This is why many companies set up creative workspaces, to promote innovative thinking and action. In a secure environment, new ideas can be tried out, prototypes developed and tested.

FIELD REPORT FROM A PRIVATE EDUCATIONAL INSTITUTE

Three years ago, the Northern Institute of Technology Management – NIT, was established on the campus of Hamburg University of Applied Sciences, pinning its future on digital transformation. This was driven by its director Verena Fritzsche who, together with her team, formulated the following questions: 'How will tomorrow's educational institute look? What content should be taught, in what form? How will students be optimally prepared for the working world? How will leaders become fit for digital change?' In numerous workshops with all NIT stakeholders – students, lecturers, corporate representatives and alumni – a new slogan was developed: 'BE THE CHANGE'.

The Technology Management masters' programme has been enriched with digital questions, now taking place within a modern format combining face-to-face and online learning phases. At the heart of the course is an individual project that continues throughout the length of the programme. Students can forge ahead, either with their own start-up idea or an innovation project for a partner company. Additionally, NIT has developed a toolbox for the movers & shakers of digital change. In pragmatic, hands-on workshops, staff and leaders experience how the new technologies can be used in companies, and which methods lead to more effectiveness and efficiency in the modern working world. With workshops such as Design Thinking and Business Model Canvas, renowned lecturers turn conventional ways of thinking upside-down, challenging participants to try new approaches. To this end, NIT has equipped a special room. Bright colours, walls you can write on, mobile tables and many different materials promoting creativity and absolutely inviting you to try it out. This creative room at NIT is available for hire, with or without a trainer. ■

Northern Institute of Technology Management

You will find further information on NIT under www.nithh.de

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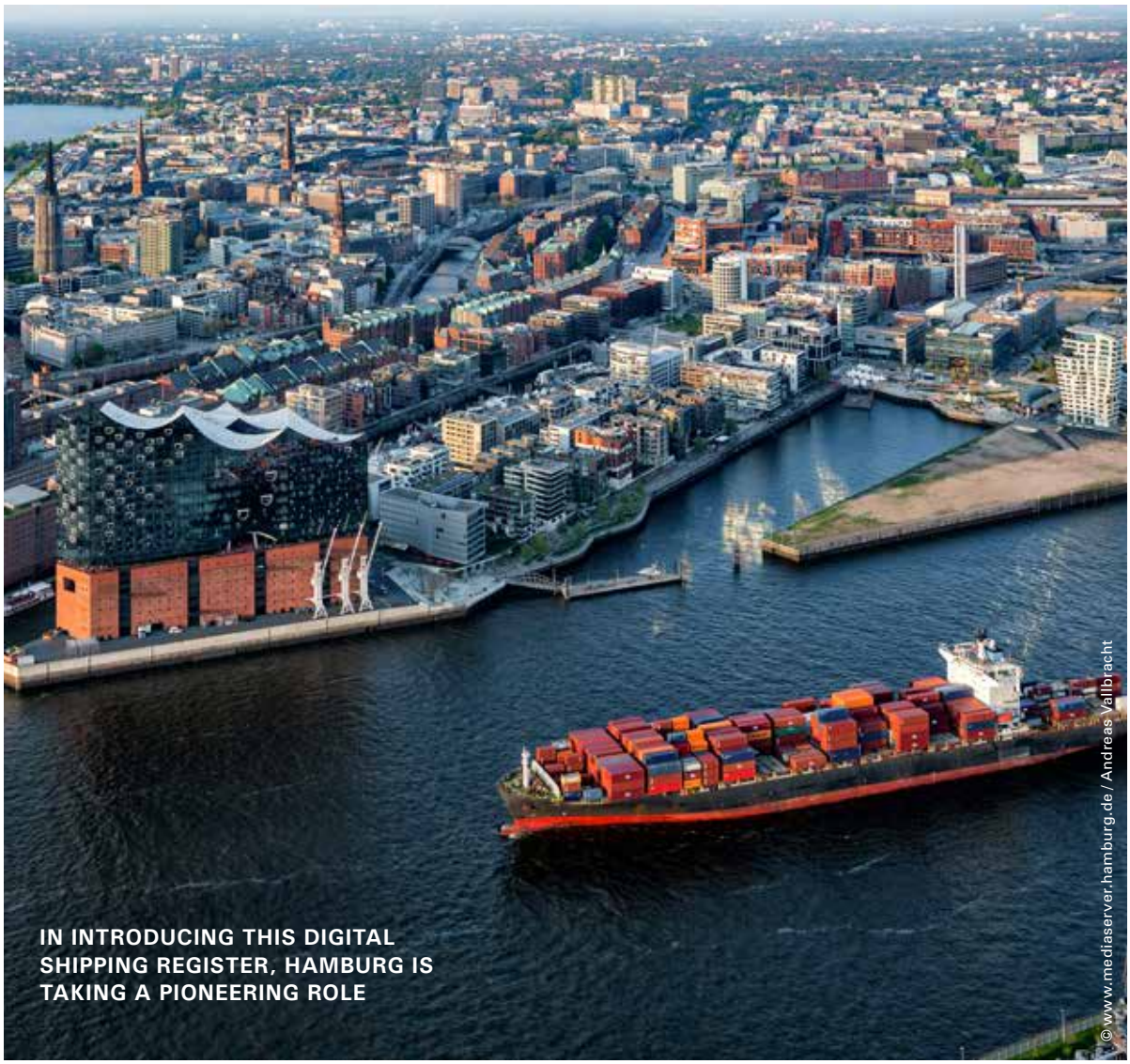
Germany's largest ship register becomes digital

Intelligent traffic lights and autonomous drones surveying quay walls in the port are easy to picture. At the beginning of this year Hamburg's innovation department, the County Court and the Ministry of Justice joined forces with IT service providers Dataport and mgm technology to present something less spectacular, but nonetheless a still more impressive example of digitalization in the port.

A digital shipping register is aimed to be on stream at the end of this year. This project forms part of the Free and Hanseatic City of Hamburg's 'Digital First' strategy.

Entries and alterations are currently made in painstaking handwriting. Anybody needing to take a peek at this public register is required to leaf through stacks of files. Digitalization of standardized working processes – generation of file names, opening files, copying documents or making a register entry – will relieve pressure on the justice system and simplify the work of the civil servants at the County Court. The new service aims to make Hamburg the industry's first choice for ship registration.

"With the digital shipping register, we are developing something truly novel," says Ute Kleinschirkes, project manager for Dataport. "The shipping register will be based solely and wholly on the way users and their



IN INTRODUCING THIS DIGITAL SHIPPING REGISTER, HAMBURG IS TAKING A PIONEERING ROLE

processes operate. They have been involved right from the start and we consult them on everything that results from our work."

That processes run more rapidly is one considerable advantage for shipowners. A considerable time saving is expected on ship purchases. In addition, thanks to the online portal they are no longer dependent on County Court opening hours. Today, shipowners or notaries wishing to have a vessel registered in Hamburg still have to submit the necessary applications on paper by post, or personally. In future, more-over, they will be able to view their files from their desks.

In introducing this digital shipping register, Hamburg is taking a pioneering role. The application will be suit-able for use in other German federal states, or alternatively these can simply assign handling of their shipping registers to Hamburg.

This is an important step for Germany as a shipping country needing to assert itself against international competition. ■

Some background

With entries for 6,985 vessels, Hamburg County Court maintains the largest shipping register in Germany. A ship does not need to originate from Hamburg to be registered here. A shipowner can himself select her home port – i.e., where she is registered. A ship does not necessarily need to call this port at some time or other. The shipping register entry serves as proof of ownership in the same way as an entry in the land registry does for property.

Registration is obligatory for seagoing ships with a hull exceeding 15 metres in length. The same applies to inland waterway craft displacing more than ten cubic metres or with a load capacity of more than 20 tons. In Hamburg 4,866 seagoing ships and 2,077 inland waterway craft were registered as at December 2018, plus 42 under construction. Last year 420 new entries were made, and around 3,500 enquiries handled. The staffing allocated to the County Court for handling the work comprises 5.25 full-time posts. The costs of the project run to 2.2 million euros.

AUTOMATIC DETECTION UNITS FACILITATE STILL BETTER AND MORE EFFICIENT RAIL OPERATION IN THE PORT

© HPA

Hamburg Port Railway – Handling by the minute

The Port of Hamburg is Europe's largest rail freight hub. The Hamburg Port Railway network handled more than 60,000 freight trains with 46.78 million tons of freight and 2.44 million standard containers in 2018 alone.

This handsomely topped 2016 as previous record year and strengthened Hamburg's position as Europe's leading rail port. Apart from the especially heavy and out-of-gauge conventional cargoes transported by rail via the universal port of Hamburg, 38 percent of all freight trains moving on the German rail network have the Port of Hamburg as their starting point or destination.

"The positive figures for the Port Railway are a success achieved along with our partners in recent years. We can be truly proud of this achievement," says Jens Meier, Chief Executive Officer of Hamburg Port Authority - HPA.

AT THE READY ROUND THE CLOCK

Both the tremendous throughput/transport volumes of the port and the vast number of transport companies, operators and service providers involved in rail shipments are organized in a cutting-edge IT-based operating system. Each of the customers involved receives the data required for planning and implementation of the logistics process. Day and night, operations on the

Hamburg Port Railway run like clockwork for 365 days of the year, so that all freight certainly arrives at its destination - without any loss of time.
With 'transPORT rail', HPA has developed a traffic management system for rail transport in the Port of Hamburg that offers an effective interface for both freight and data transport. Users gain access to the system either through an interface or via the Internet through WebClient. Users consist as a rule of loading points, rail operators, marshalling service providers, railcar owners and operators. Where the appropriate agreements have been reached, data may be used directly by the customers or their service providers.

INCREASED EFFICIENCY GENERATES SUCCESS

A further significant key to the success of rail transport on Hamburg Port Railway is steadily growing efficiency. For instance, the average load factor on trains running on the Port Railway network has now reached 74 standard containers per train.
Repeated boosts to/cargo volumes and efficiency on Hamburg Port Railway underline Hamburg's status as the most important hub for railborne shipments. This also represents a substantial contribution to the environment and to transferring traffic. Thanks to lengthening of track blocks, in 2018, the number of long trains – of 740 metres upwards – was boosted by a further three percent.
Determined separation of road and rail traffic within the port has accelerated flows there. The recently completed Rethe drawbridge and the Kattwyk railway bridge, which is now under construction, will reduce traffic jams enormously, since they eliminate crossings and let road and rail traffic to run parallel at the same time.

AUTOMATIC DETECTION UNITS ON BRINK OF ROLL-OUT

Following an extensive test phase, the port's Rail Data Gate will shortly be introduced. HPA has installed automatic detection units at two points between Hausbruch and Alte Süderelbe Rail Station. These conduct near-process checks of passing trains for lengths, railcar sequences, railcar weights and hazardous goods markings. They also facilitate early detection of flat patches on railcar wheels before these assume threatening dimensions. "These data facilitate still better and more efficient rail operation in the port for us," says Harald Kreft, HPA's Head of Railway Infrastructure. "Besides, other stakeholders in rail logistics and the maritime industry can profit in planning and dispositioning their shipments from the additional data offered." ■

Hamburg Metropolitan Region: Major investment in freight traffic routes

The increasing demand for freight transport requires further upgrading of infrastructure for the ports.

In their coalition contract, the governing parties in Berlin have agreed to promote maritime locations and to bring about a transfer of traffic to environmentally-friendly rail. The Hamburg rail node has been classified as a top priority rail project by the federal government.

Since 2016, a second bypass track has been under construction skirting the marshalling yards in Maschen for fast freight transport to the ports. A second track is currently being laid in the north bend at Kornweide to improve access to the western side of the port by 2020. In addition, to disentangle traffic flows, by 2026, a grade-separated junction will be built at Meckelfeld, and upgraded to four tracks. The federal government and Deutsche Bahn are investing a good 150 million euros in these three measures.

© HHM / Karin Lengenfelder

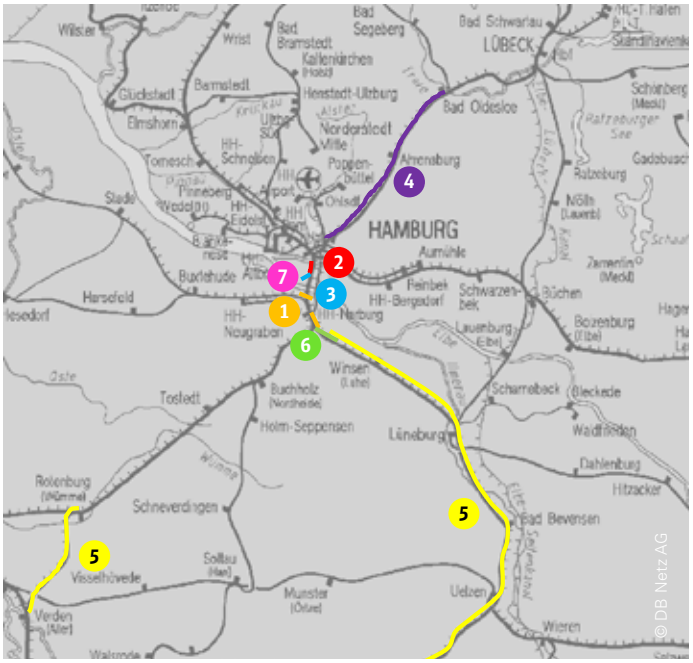
Frank Limprecht
DB Netz AG, Manager Major Projects North

© HHM / Karin Lengenfelder

Bernhard Schmid
DB Netz AG, Port Representative

With the construction of an inter-linking bend in Harburg and the cross-over junction in Wilhelmsburg, by the end of the next decade further bottlenecks should be eliminated and capacity to and from the ports increased. The planned major bottleneck solution will be to extend the track system between Hamburg and Bremen–Hanover. With 3.4 billion euros earmarked by the federal government, the increases in seaport hinterland traffic should be catered for.

An increase in capacity for freight traffic to/from Scandinavia will occur because of the construction of new tracks for the S4 (east) rapid transit Hamburg–Bad Oldesloe. This development project is budgeted with some one billion euros. These upgrading and new development projects deal with the short-term and long-term will equip the Port of Hamburg's rail infrastructure for further growth. ■



Hamburg Metropolitan Region:
Freight transport infrastructure measures

1. Meckelfeld grade-separated junction
2. Wilhelmsburg cross-over junction
3. Kornweide north bend twin-track upgrading
4. S4 (east) Hamburg-Bad Oldesloe
5. Hamburg/Bremen-Hanover, Rotenburg-Verden
6. Maschen second eastern bypass track
7. Cuxhaven Express with connecting bend in Harburg

The container terminal of the future: Networked, intelligent, emission-free – simply flowing

Guest contribution by Prof. Dr.-Ing. Carlos Jahn

Seaport container terminals form the central hub in the maritime transport chains for containerizable freight of all types. On limited areas, via time-sensitive processes a multitude of very differing technical system elements – from ocean-going vessels to container bridges/gantry cranes to straddle carriers and telescopic stackers – are mutually interlinked, also with the multimodal hinterland transport system comprising roads, rail and inland waterway craft.

Container terminals face challenges on several fronts. Customers such as shipping companies, sea freight forwarders and carriers/transport companies expect rapid, reliable handling and storage services – even if weather or other factors cause timetable or other disruptions. For society generally, transport that minimizes such emissions as CO2 and dust particles, noise and bright light, is increasingly gaining in importance. Especially where terminals are located in urban districts or beautiful natural surroundings, land use needs to be more efficient. Extensions are proving increasingly problematical. Security is an additional significant challenge, e.g. on the handling of hazardous goods and prevention of criminal activities such as smuggling.

TECHNOLOGY BOOSTERS AND THE POTENTIAL

Container terminals will confront these manifold challenges by utilizing innovative technologies. Four main technology boosters are of particular relevance here:

1 REALTIME INFORMATION AND NETWORKING

Progress on information, communication and location technology combined with Internet-of-Things technologies facilitate realtime localization and current status of such objects as vehicles, appliances and cargo units, for example with 5G technology. These enable comprehensive situation pictures to be compiled of traffic flows afloat or on land, of logistics and freight movements, and the state of supra- and infrastructure, and dynamic data to be won for the digital twin. State-of-the-art cloud solutions enable companies participating in the transparent transport chain to gain access to data relevant for them and to exchange data in realtime with partners.

2 BIG DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE

Realtime messaging and networking will cause a massive increase in data quantities entered and stored. The methods and algorithms of Big Data Analytics and Artificial Intelligence (AI) will be essential for the analysis and evaluation of such data. AI will enable colossal quantities of data to be specifically analyzed, inter-connections recognized, forecasts prepared, and decisions on dispositions optimized. Services afloat and ashore to, in and from the container terminal can be multimodally optimized. Sensors on containers and cargo units will continuously record, locate and control freight flows in the supply chain. As a result, use of resources can be synchronized. Waiting times for vehicles and equipment, along with container storage periods, will be minimized. Delays and system failures will be anticipated and appropriate reactions initiated in good time. Ideally, the upshot is a system in which everything – vehicles and freight – simply flows.

3 AUTOMATION AND AGENT TECHNOLOGY

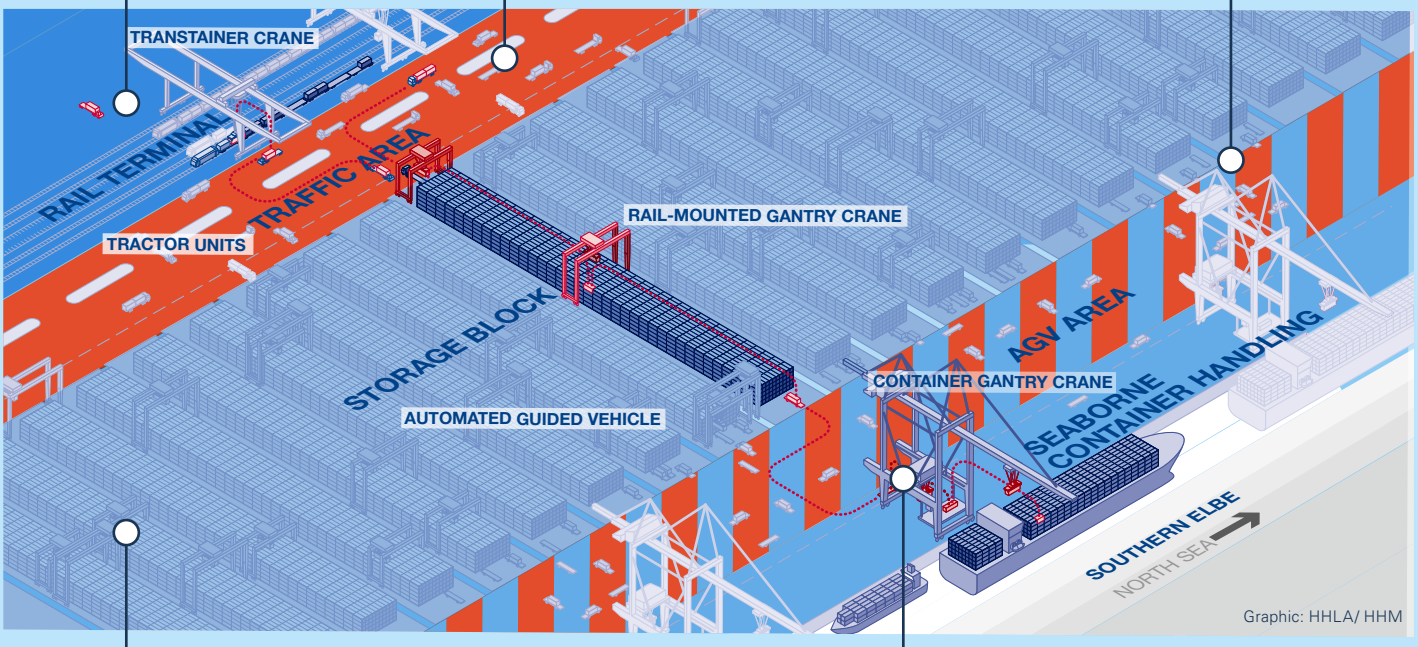
Technical systems on container terminals are increasingly being equipped with automation and computer technology. With the additional use of

Electrification of HHLA's Container Terminal Altenwerder (CTA) in Hamburg

4 fully electrified transtainer cranes and electric cars as check vehicles

The road vehicle area is to be the last section of CTA to be electrified. Last year's trial deployment of the prototype of a battery-powered tractor between block storage and the rail terminal

90 AGVs, some with diesel propulsion, some diesel-electric, some battery-powered (lead and lithium-ion). By 2022 all AGVs will have been converted to battery operation



Fully electrified storage block with 26 gantry cranes

14 fully electrified container gantry cranes for seaborne container handling

Electrified

Electrification in implementation

Electrification planned

what are known as 'software agents', such systems can also be given a measure of intelligence. They recognize their environment, can mutually communicate within pre-defined limits, and autonomously take decisions. In future, with machine-to-machine communication, fewer central control measures will be required for logistics processes at terminals. Autonomous systems will negotiate actions among themselves with a defined aim in mind, controlling these decentrally and optimizing use of resources.

4 EMISSION AVOIDANCE PLUS ALTERNATIVE ENERGY SOURCES

To reduce emissions, more low- or no-emission transport, storage and handling technology will come to be used at container terminals. This will include electrification of vehicles and other technical systems, clean power supply to ships and use of alternative fuels towards achieving emission-free terminal operation.

PROSPECTS

The container terminal of the future will be a high-performance, automated logistics motor. In mutual coordination, autonomous emission-free systems will independently run transport, handling and storage operations. Logistics processes will be synchronized, everything will simply flow. The immense flexibility of decentralized control will permit forward-looking, independent reaction to any deviations from plan. Humans will supervise and take the strategic decisions, intervening in emergency or unusual situations, and ensuring maintenance and further development of these complex technical systems. ■

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Write to me at: facebook.com/ppickhuben

PETER PICKHUBEN'S PINBOARD

© HHM / Dietmar Hasenpusch

An eye-catching ship in the Port of Hamburg

At the end of last year I was there for the maiden call of ONE COLUMBA in the Port of Hamburg – a very colourful affair. This 'Lady in Pink' belongs to the Ocean Network Express (ONE) shipping group. Not simply due to her brilliant magenta hue, she's a hit. With a slot capacity of 14,000 TEU, a breadth of 51 metres and a length of 364 metres, you can call her an ULCV or ultra-large container vessel. For ladies of her size, fairway adjustment of the Lower and Outer Elbe makes a lot of sense. This striking container carrier plies on the FE5 service, calling ports in Vietnam, Singapore & Sri Lanka as well as Rotterdam and Hamburg. As usual during a maiden call, a Port of Hamburg plaque was presented to the captain of the ONE COLUMBA.

By the way ...

... you can also find my favorite port on social media – check it out:

- portofhamburg
- hafenhamburg oder portofhamburg
- portofHamburg

© Brunsbüttel Ports

Starting signal for Lower Elbe fairway adjustment

Building an underwater dredged material disposal site – UDMDS at Brokdorf marks the start of work on fairway adjustment of the Lower Elbe. As a preparatory measure, the edges of this have been built. So there's already a park to hold dredged sediment produced by fairway adjustment. A stone embankment is being built to surround a deposit area covering roughly 24 hectares, or 34 football pitches. The Brokdorf site is one of six UDMDSs that all form part of what is known as an integrated hydraulic construction scheme. These will help to reduce the repercussions of fairway adjustment on water levels and currents in the Elbe. Contracts have also been placed for works on similar underwater UDMDSs at Medemrinne and Neufelder Sand. Lying west of Brunsbüttel, Neufelder Sand is some 6,700 metres long and serves mainly to channel the river. Around 9.5 million cubic metres of material dredged during widening and deepening will be deposited there later.

© HHM / Tim Reincke

Ice-cold bunkering: Naming of first German LNG refuelling vessel

There was a howling gale early in February as I watched the naming of the new 'Kairos'. I even lost my cap...

The day commenced with a hearty breakfast on the MS 'Koi'. The refueller was already lying in wait at Steinwerder Cruise Terminal for sponsor Annegret Kramp-Karrenbauer and numerous folk from the press. After speeches from Jörg Pollmann, Port Captain, and Jens Meier, CEO of Hamburg Port Authority, the sponsor then officially named the 'Kairos', using the obligatory bottle of sparkling wine.

The 'Kairos' is the world's largest LNG bunkering ship and something really special, since Liquefied Natural Gas reduces sulphur, nitrogen oxide and fine-dust particle emissions, and helps cut down CO2. Replacing heavy or diesel oil, the 'Kairos' can deliver between 200,000 and 300,000 tons of LNG per year. Please note: In motoring terms, that's equal to total consumption by 500,000 diesel car engines.

Ship-to-ship-refuelling for the first time facilitates commercially and technically practical LNG supply for larger ocean-going vessels in Germany and its neighbours on the Baltic.

Becker Marine Systems and Wallenius Marine introduce wind-powered ships

Becker is currently developing a super-efficient wingsail that can give commercial vessels a powerful shove – forwards. Over long distances, wind as a 'power source' should sharply reduce a ship's fuel thirst. The leading partner for this development is Wallenius Marine.

The latest design for a modern car transporter or WPCC – Wind-Powered Car Carrier features four large wingsails, each with a spread of more than 1,000 square metres. In optimum conditions, these will be able to give the vessel a speed of up to ten knots without any help from engines.

By contrast with most other approaches, Becker's wingsail consists of two vertical sections, forming an aerodynamic foil. For passing bridges, guaranteeing safe operation in port and 'reefing' the system in rough weather conditions, Becker has thought up a special lowering device for its startling new technology.

© Wallenius Marine

HHM: Future Head of Dortmund Representative Office already on board

Since the beginning of the year, Markus Heinen has reinforced the Port of Hamburg Marketing Representative Office in Dortmund, where he will succeed Volker Hahn in July.

As an expert on transport logistics, Heinen brings immense knowhow and excellent contacts to his new function with Port of Hamburg Marketing. This thoroughly networked MBA is equally versed on handling the topics of rail freight transport, inland & ocean-going shipping, and in cooperating with official bodies, chambers of commerce and trade associations at German and European levels. Heinen had previously worked as Regional Manager North/East for SPC Multimodal Transport Solutions in Bonn.

Markus Heinen
Future Head of Dortmund HHM Representative Office

With an annual transport volume of around 500,000 TEU – 20-ft standard containers – North Rhine-Westphalia is the second most important region for the Port of Hamburg's hinterland container transport. Shippers and forwarders from North Rhine-Westphalia use the dense network of worldwide liner services via Hamburg for global distribution of imports and exports, consisting mainly of trade and department store goods, metals and metal products, machinery and equipment, vehicles, and food and beverages. The challenges in seaport-hinterland transport and stiff competition between the North Range ports make the work of the Port of Hamburg Representative Office extremely varied and challenging. From Dortmund, it covers the market regions Lower Saxony, Hesse, Rhineland-Palatinate and Saarland. At numerous briefings, networking events such as Port of Hamburg port evenings, and as an element in traffic projects, the Port Representative Office does invaluable work, at the same time forming the link between HHM member companies in the Hamburg Metropolitan Region and companies and organizations inland concerned with seaborne foreign trade, transport and logistics.

Heinen sees good chances of also activating the potential of rail and inland waterway shipping as environment-friendly carriers for the Port of Hamburg's hinterland transport for traffic from the Moselle region via Cologne and from the vicinity of Siegen.

HHM's Dortmund team of Kerstin and Volker Hahn will be retiring during the second half of the year. ■

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