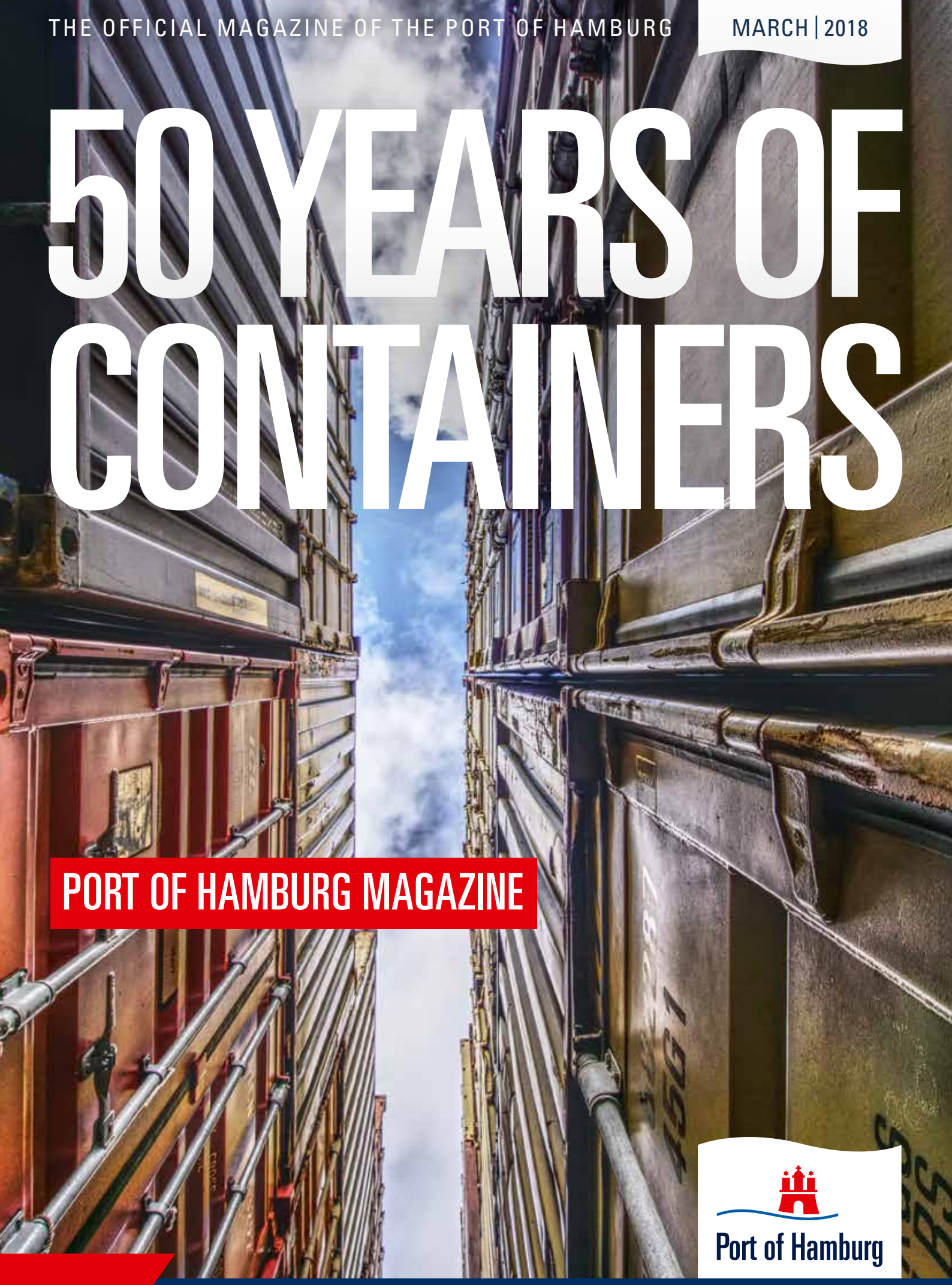
THE OFFICIAL MAGAZINE OF THE PORT OF HAMBURG

MARCH | 2018

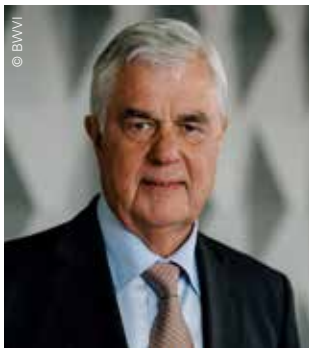
50 YEARS OF CONTAINERS



PORT OF HAMBURG MAGAZINE

Port of Hamburg

Dear Readers,



Deepsea shipping both powers and profits from globalization. Containerization of cargoes, especially, unlocked considerable potential. The Port of Hamburg cleared its first containership 50 years ago. This was the starting signal for a new era and has shaped change in the Port of Hamburg for good.

With 'Industry 4.0 & Digitalization', we are now on the threshold of another, epoch-making change. Digital technologies are increasingly impacting all areas of public infrastructure and life in general. Broadband, superfast internet, 5G and wholesale networking of the port and logistics sectors are just some of the requirements. Realtime data, bridges that open, weather monitoring, gale and flood warnings and traffic bulletins are other features.

The Port of Hamburg is a vital global logistics hub with a comprehensive network of liner services and efficient links with an immense hinterland. We aim to retain and further strengthen this position. Changes through digitalization are affecting all areas of our lives. If we are smart in our approach, this will offer great opportunities for Hamburg and the whole of Germany.

Now is the time for being pro-active. Related measures are becoming increasingly evident in the Port of Hamburg. With its smartPORT program, Hamburg Port Authority is gradually implementing various digitalization projects to direct traffic and freight flows intelligently. Both economic and ecological factors are relevant, since digital transformation must be shaped jointly with all players.

We as the state government aim to join all companies involved in ensuring that this sector successfully tackles the future and Hamburg long remains in the 'Premier League'.

Frank Horch
Hamburg Minister of Economics,
Transport & Innovation


THE PORT OF HAMBURG CLEARED ITS FIRST CONTAINERSHIP 50 YEARS AGO. THIS WAS THE STARTING SIGNAL FOR A NEW ERA AND HAS SHAPED CHANGE IN THE PORT OF HAMBURG FOR GOOD
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50 JAHRE YEARS OF
CONTAINERUMSCHLAG
CONTAINER HANDLING
IN HAMBURG

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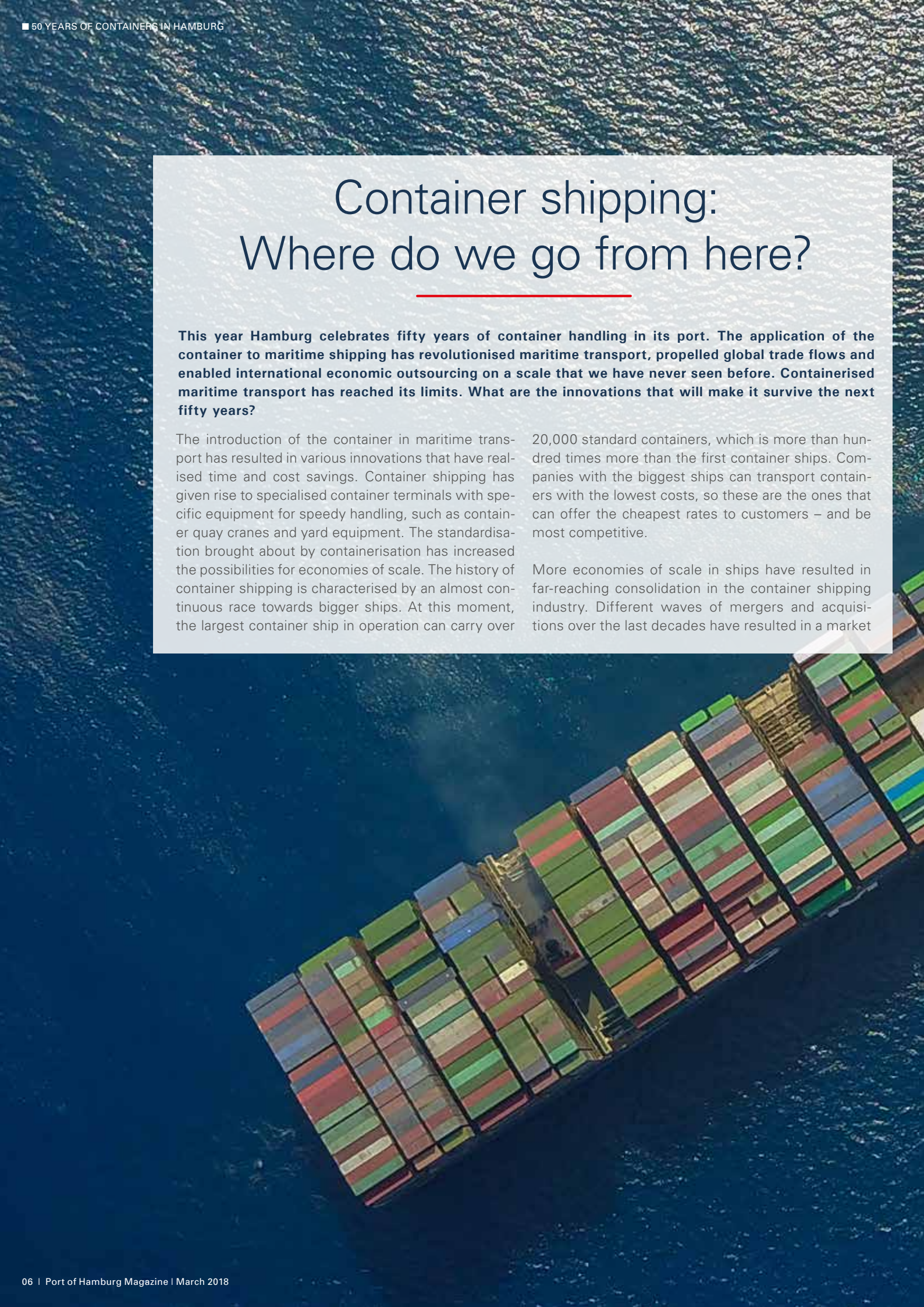
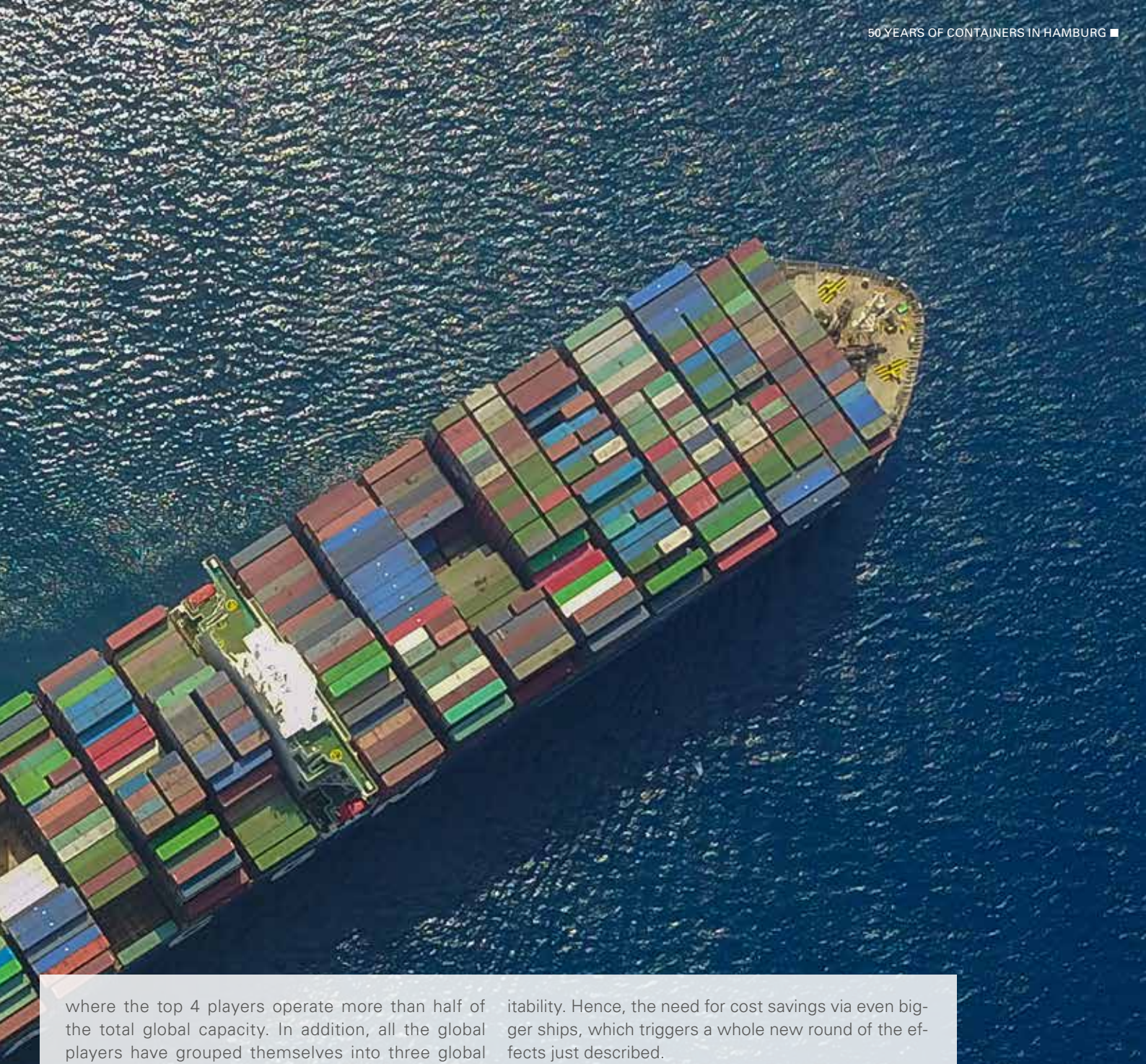
Container shipping: Where do we go from here?

This year Hamburg celebrates fifty years of container handling in its port. The application of the container to maritime shipping has revolutionised maritime transport, propelled global trade flows and enabled international economic outsourcing on a scale that we have never seen before. Containerised maritime transport has reached its limits. What are the innovations that will make it survive the next fifty years?

The introduction of the container in maritime transport has resulted in various innovations that have realised time and cost savings. Container shipping has given rise to specialised container terminals with specific equipment for speedy handling, such as container quay cranes and yard equipment. The standardisation brought about by containerisation has increased the possibilities for economies of scale. The history of container shipping is characterised by an almost continuous race towards bigger ships. At this moment, the largest container ship in operation can carry over 20,000 standard containers, which is more than hundred times more than the first container ships. Companies with the biggest ships can transport containers with the lowest costs, so these are the ones that can offer the cheapest rates to customers – and be most competitive.

More economies of scale in ships have resulted in far-reaching consolidation in the container shipping industry. Different waves of mergers and acquisitions over the last decades have resulted in a market





where the top 4 players operate more than half of the total global capacity. In addition, all the global players have grouped themselves into three global alliances that more or less act as an oligopoly on the major East-West trades. This is linked to ship size: consolidation and alliances allow firms to order and to fill bigger ships.

STRETCHED TO ITS LIMITS, RIPE FOR INNOVATION?

The container shipping industry is trapped in a "vicious circle" from which it seems impossible to escape. This is how the vicious circle works. A shipping firm can make money by being cheaper than his competitors. This can be realised by bigger ships. As soon as one firm orders bigger ships, the others follow so that they do not lose in competitiveness. The result is a massive order of bigger ships, which leads to overcapacity: too many ships for the demand (the goods that need to be transported). This overcapacity leads to lower freight rates, so less revenues for shipping firms, leading to losses and the need for new measures to restore profitability. Hence, the need for cost savings via even bigger ships, which triggers a whole new round of the effects just described.

The current business model has reached its limits. The sector is ripe for disruption: more efficiency in the maritime supply chains needs new innovations. What might these be? In my view, these could centre around new modularity, digitalisation and new business models.

CONTAINER: STILL THE RELEVANT UNIT?

While container ships simplified cargo handling in the 1960s, very large container ships have tended to complicate operations, as they result in thousands (and sometimes more than ten thousand) containers per ship to be handled at once in a terminal. In order to do this quickly, terminals need up to ten of the largest container cranes working at full speed, cranes they will not need most of the rest of the week. Moreover, the sudden arrival or departure of so many containers put severe constraints on the container yard, as these will need to be connected to a train, truck or barge. Larger

Large efficiency gains can still be realised in the interface between ship and port, and port and land transport

container ships require larger container terminals, but there are limits to how large container terminals can become, as most ports are located close to cities, for the obvious reason that this where often most of the consumption and production takes place. Yet space is scarce in cities. Too many port-cities are unfortunately confronted these days with congested ports. A lot of these bottlenecks exist in a way because the standard container is still the undisputed norm.

So the question is: Would it be possible to conceive of an additional layer of standardisation, a unit that encompasses a multitude of individual containers? This is the idea behind the revolutionary idea of the Venice offshore port. In this concept, the offshore port does not handle each individual container with conventional container cranes, but facilitates the disaggregation of a mother vessel into barges (called cassettes) that each contain 384 containers. This allows the handling time of the offshore port to be very short.

A similar question on an additional layer of standardisation could be asked at a lower aggregation level: Is it possible to find a level of modularity between the container and the individual parcel that is in the container? So, some sort of a set of sub-container developed in concepts such as the "physical internet" that could improve the efficiency of freight transport.

50 YEARS OF CONTAINER HANDLING IN HAMBURG

IN 1000 TEU (SINCE 1968, IN TOTAL MORE THAN 186 MILLION TEU HAVE BEEN HANDLED IN THE PORT OF HAMBURG)

Source: HPA / Graphic: Elbreklame

DIGITALISATION

Whereas privatisation and globalisation of operations have increased efficiency of operations within shipping and port terminals, large efficiency gains can still be realised in the interface between ship and port, and port and land transport. This is where data become of the utmost importance, as proper data exchange can help to improve these interfaces. Not surprisingly, various shipping firms have teamed up with data-related firms to crack this challenge; an example is the recent Maersk/IBM joint venture. Future handling of container transport might be more about handling of data and facilitating smooth interfaces than about the physical act of loading a container in a ship.

Other changes related to handling ships are also being discussed. Examples include offshore ports, drones, vertical warehouses, which could all be considered responses to the space constraints that modern container ports are increasingly confronted with.

NEW BUSINESS MODELS?

Is the Uber business model applicable to ocean shipping, and will container carriers soon be the taxi drivers of ocean transport? Chartering could, in a way, be considered a form of "uberisation". However, there is a crucial difference with taxis: owning a car is much cheaper than owning a ship; these entry costs put ship-owners in a better position to avoid "uberisation". Most money can be made with the supply chain design and integrator functions. This is also where most new entrants, such as high tech start-ups have focused their energy on: a data-rich, asset-light global platform. Yet, this will be difficult to function if ship-owners do not cooperate.

This platform paradigm competes for the limelight with a contrasting model: the global expansion of the state capitalist model, as exemplified by the Chinese Belt and Road Initiative. The same global and integrative ambitions, but a much stronger focus on hard infrastructure, including ships, overseas ports and railways that are build, owned, operated, financed and controlled by Chinese state-owned companies.

The coming years will likely see a clash of such paradigms. Outsiders will try to revolutionise container shipping by being smart, whereas the insiders will try to keep control by adopting some of that data-savviness. Internationalisation of state controlled capitalism will compete with more fragmented geopolitical responses that highlight reciprocity and focus on multilateralism. ■

THE AUTHOR

Olaf Merk is the Project Manager Ports and Shipping of the International Transport Forum (ITF), an intergovernmental organisation with 59 member countries affiliated with the Organisation for Economic Co-operation and Development OECD. He has directed numerous studies on ports and maritime transport, notably "The Impact of Mega-Ships" and "The Competitiveness of Global Port Cities", as well as more than a dozen studies on port cities, including on Hamburg, Shanghai and Jakarta. His most recent report "Decarbonising Maritime Transport: The Case of Sweden" will be published in March.

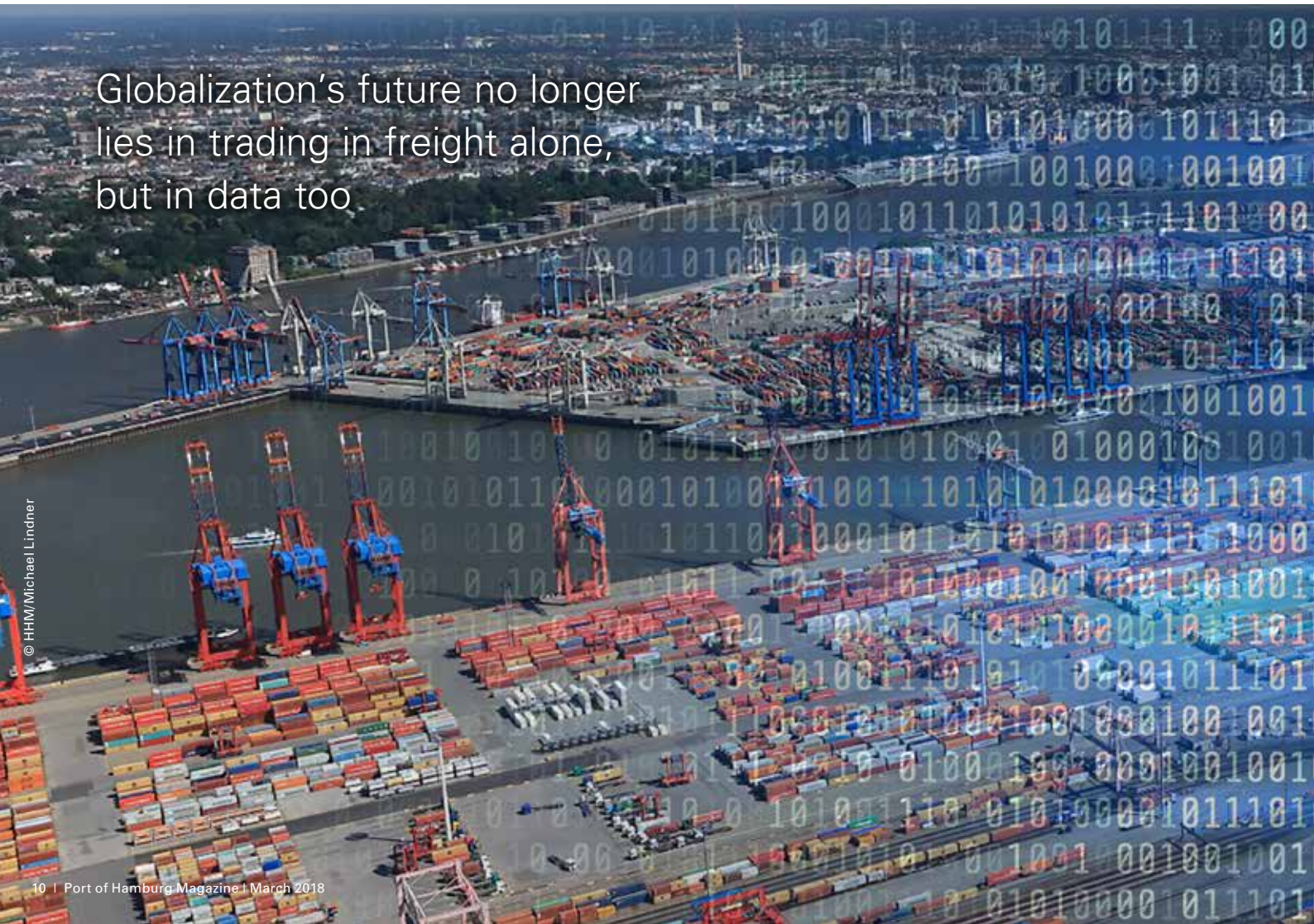
Port of the Future: Digitalization boosts innovation

The container will remain the universal benchmark in the port of the future – yet virtually everything around it is changing. Trading in freight is being joined by trading in data. So ports will become integrators for a host of different players.

'The competitiveness of German ports will vitally depend on how the maritime sector exploits digitalization as a chance for ongoing development.' This was the conclusion of an intensive exchange of ideas between Frank Horch, Hamburg Minister of Economics, and Remi Eriksen, CEO of classification society DNV GL, in Hamburg City Hall at the end of 2017.

DNV GL has long been in dialogue with Hamburg Port Authority (HPA) on a variety of sustainability and digitalization topics. "Having our maritime head office here in Hamburg means that we have the right experts on the spot for backing up the City of Hamburg on the technical challenges en route to a 'Port 4.0'," said Eriksen.

Internet of Things, Logistics 4.0 or Port 4.0 – these buzzwords for digitalization have determined the Port of Hamburg's strategy for setting course for the future. "Involving dramatic consequences for Hamburg, massive changes are emerging in international freight trade," forecasts Professor Thomas Straubhaar. The



economist, a former director of the Hamburg Institute of International Economics (HWWI), warns that "It's vital to react in good time, namely now!" Globalization's future rests on trading of not just goods, but data: "The faster and more strongly this development advances, the more gargantuan containerships and sprawling ports will prove to be dinosaurs of economic history."

Alongside its traditional duties to physical infrastructure in and around Germany's largest seaport, for HPA digitalization has for years been a core topic. "Through closer cooperation, especially on data interchange, but also on staff training all along the logistics chain, in future we can achieve considerably greater efficiency on transport to the consignee," anticipates Jens Meier, HPA's CEO.

All the same, digitalization can also involve non-market players now offering services so far provided by established players in the maritime business. Applied by innovative start-ups and global groups alike, these disruptive business models, are spreading throughout the logistics sector. Dr. Sebastian Saxe, HPA's Chief Digital Officer has observed this at shipping companies too: "These non-shipping providers are successfully challenging the status quo with their innovative, digital business models. It's therefore high time to join established players in port operation in implementing digital transformation along the logistics chain." Ports could here exploit their function as integrators of various players and pro-actively harness collected data along the transport chain to build up digital business models.

Professor Carlos Jahn is confident that "Digitalization offers seaports immense opportunities to function more effectively and efficiently." He heads Hamburg University of Technology's Institute for Maritime Logistics, as well as Hamburg-based CML - Fraunhofer Center for Maritime Logistics and Services, confirming Saxe's assessment: "As soon as the possibilities for intensive data interchange are exploited in real time, digitalization will permit optimization of the entire supply chain, contributing to secure and environmentally-friendlier processes and strengthening the competitive situation." ■

Visions and Ideas in b/w

To boost the digitalization process within the maritime supply chain, HPA has cooperated with the Hamburg-based Fraunhofer Center for Maritime Logistics and Services to produce an English-language publication presenting some examples of future challenges to seaports. "Digitalization of Seaports – Visions of the Future" is available as a paperback or an e-book from Fraunhofer-Verlag (**www.verlag.fraunhofer.de**, ISBN 978-3-8396-1178-4, price: 49.00 euros). An introductory brochure – "Digitalization of Seaports – First Ideas" – is available as a gratis download on Fraunhofer CML's homepage (**www.cmls.fraunhofer.de**) or via the QR-Code:

"Flexibility will become the crucial competitive factor"

Three questions on 'Port of the Future' to Henning Kinkhorst, CEO and Partner at Hamburg Port Consulting (HPC)

Port of Hamburg Magazine (PoHM): The topic of digitalization has now even reached the port business. Is the sector jumping on a bandwagon or is there more to it than that?
Kinkhorst: Ports confront tremendous challenges. They will not master them without digitalization. The focus is no longer on eliminating capacity bottlenecks but on boosting the efficiency of existing infrastructure. Creating high volatility in freight flows, robotics and 3D printing will also become more important. For ports, flexibility will be the crucial competitive factor.

The container will remain the universal yardstick for freight transport

PoHM: Apart from digitalization, are there other buzzwords for describing the port of the future?
Kinkhorst: They are closely related to digitalization: Electrification and automation will make ports environmentally friendlier. Even now, HHLA Container Terminal Altenwerder's transport systems include unmanned, battery-driven vehicles. I also see plenty of opportunities for using drones. In the near future, these could take over intra-terminal container transport. Autonomous trucks and ships will also become reality and largely dictate traffic services.

PoHM: So will nothing remain of the "old" port world?
Kinkhorst: Hinterland infrastructure will long remain one of the most crucial competitive factors. And the container will remain the universal yardstick for freight transport. Yet that should not prevent us from considering the question: Apart from the container, what else is coming?

Henning Kinkhorst
of HPC Hamburg Port Consulting

Hamburg Port Consulting

HPC Hamburg Port Consulting was founded in 1976 and is one of the world's leading port and transport consultancies. Its customers include private companies, institutional clients, ministries and government agencies. Among the areas where HPC offers its services are port management, planning/simulation, financial analysis, privatization and engineering & IT solutions. HPC is a wholly-owned subsidiary of Hamburger Hafen und Logistics AG (HHLA).

www.hamburgportconsulting.de

RECORD-BREAKING CONRO VESSELS

Fully cellular containerships are not the only vessels bringing boxes to Hamburg. Multi-purpose freighters, heavy cargo vessels and ConRo ships also often carry containers as deck cargo. The 'Atlantic Star' is a ConRo vessel, the world's largest of her type. Calling regularly at the Port of Hamburg, she and her four sister-ships are deployed on the Trans-Atlantic trade by Grimaldi Group's ACL subsidiary. They are 296 metres long and can transport 3,800 TEU (20-ft standard containers) on deck. A total of 28,900 square metres for wheeled cargo, or capacity for over 1,300 vehicles, is available below decks. The ship's stern ramp can be used to load wheeled items weighing up to 420 tons. In the Port of Hamburg the ships are handled at Unikai's O´Swaldkai multi-purpose terminal. Two container gantry cranes have been specially transferred from HHLA's Tollerort Container Terminal to enable O´Swaldkai to handle the record-breaking ConRo ships.

© HHLA

Technically feasible, but useful?

Has the absolute limit been reached or will containership size continue to increase? Will mega-carriers soon become giga-carriers? When will the cult of the big beasts end? Even among renowned bodies, opinions differ markedly. In a recent survey, the Organisation for Economic Cooperation and Development (OECD) sees the limits as already reached. This is because still larger containerships would bring no cost benefits worth mentioning, and also present ports with a series of new problems on clearing vessels. By contrast, worldwide consultants McKinsey are reckoning with deployment of 50,000-TEU containerships within the next few decades. Port of Hamburg Magazine has made enquiries from those involved with container shipping on a daily basis and sought their opinions.

Jens Meier
CEO Hamburg Port Authority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"Mega-containerships with a capacity of more than 16,000 TEU are meanwhile calling at terminals in the Port of Hamburg several times a week. This shows that Hamburg is in the thick of it and fully capable of handling these. Yet I see relating our competitiveness and progress to containership growth as the wrong course. I share the view that growth in containership sizes needs to come to an end. The shipping industry should recall the mistakes made in the tanker business. Optimized processes on the quay walls offer far higher growth and improvement potential than striving for more and more giga-vessels. If we and all participants in the maritime supply chain can further accelerate global door-to-door freight transport, then together we shall be setting the correct accents for the future. The new opportunities in digitalization give us the right framework."

Rolf Habben Jansen
Chief Executive Officer (CEO), Hapag-Lloyd AG


© Hapag-Lloyd

"Larger ships enable liner shipowners to significantly reduce the cost per container transported. Already being deployed, the mega-ships of the latest generation therefore offer a noticeable competitive advantage compared to the vessels capable of carrying 8,000 TEU that were the world's largest at least a decade ago. Yet with still bigger vessels, the effect of scale will once again decline. Moreover, still larger vessels present ports with logistics problems. They are not by any means suitable for all trade routes. In the next few years Hapag-Lloyd will not be investing in either newbuilds or still larger ships. By merging last year with UASC, we acquired some extremely large and efficient units for our fleet. So we have the newest fleet in the industry, with the largest average vessel size – and accordingly a highly competitive mix of cutting-edge ships for our network."

Jens Hansen
COO, Executive Board member, Container Marketing & Technology, Information Systems, Hamburger Hafen und Logistik (HHLA)


© HHLA/Nele Martensen

"I don't think 50,000-TEU ships will be built within the foreseeable future. Yet it is important not to get lost in the detail of ever-growing ship sizes: To give no thought to further growth would be negligent. Shipyard order books currently include containership newbuilds with a breadth of about 62 metres. I can picture ship lengths still increasing to 430 metres. Apart from the technical challenges, a fresh leap in breadth and height would also intensify the challenges for loading and discharging. So the benefits of scale will be reduced by longer distances during the loading/unloading cycle."

Søren Toft
Chief Operating Officer, Maersk Line


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"In the container shipping industry, profitability is to a high degree dependant on the industry's ability to lower costs and increase efficiency. The concentration of cargo on larger vessels rather than multiple, smaller vessels comes with advantages. That said, past years' developments, cheap time charters and low fuel prices have somewhat faded the arguments for ultra large container vessels (ULCVs). In our view, further upscaling in vessel size would require significant investments across the supply chain that may not be meaningfully offset by declines in total cost, and reduce carriers' flexibility to adapt to changing patterns of trade flows. A lot of value from current sized ULCVs still remains to be extracted – not least in terms of improvements in terminal productivity when accommodating ULCVs. In Maersk Line, our current focus is to explore new approaches to unlock efficiencies in port operations in cooperation with ports and terminals."

Jan Tiedemann
Senior Analyst Liner Shipping and Ports, Alphaliner/BRS Hamburg


© HHM/Markus Grabsch

"For around twenty years now Alphaliner has been monitoring the development of the global container fleet in great detail. Despite the world economic crisis, in the past ten years the fleet's total capacity has roughly doubled – most recently to over 21 million TEU. Over the same period, there has been relatively little change in the total number of containerships, currently about 5,200. The bulk of growth has been derived from the steadily increasing size of ship newbuilds. Whereas ten years ago vessels of 8,000 TEU were standard on the main trade routes, today ships can be of up to 21,000 TEU, while units of over 23,000 TEU are now under construction. Alphaliner assumes that in the long term, this new size bracket will continue to represent the upper limit of the trend. While we cannot rule out a possibility that further optimization will produce vessels of up to 25,000 TEU, we regard a further leap in size to 30,000 TEU or even more as improbable. While such ships would be technically feasible, they would offer neither ports nor shipowners further notable economies of scale or savings. Such giga-vessels also involve considerable financial and operative risks. So market growth will tend to occur through a further increase in the number of ULCVs, rather than even larger ships."

Jan Holst
Country Head Germany, ONE Ocean Network Express, the 'K' Line, MOL & NYK partnership


© ONE Ocean Network Express

"I am certainly sceptical on the trend towards ever-larger containerships. As ONE, we shall admittedly have a few 20,000-TEU vessels in our fleet. However, our liner structure involving numerous inner-Asian connections prevents us from deploying mega-ships to this extent because the ports lack the essential capacity. In addition, we cannot miss out on how our customers are developing. We all pay heed to costs when ordering. That means doing so more selectively, yet regularly. This means that it is important, especially on the Asia-Europe trade routes where consumer goods dominate, to ensure a constant link between the two continents. That makes cyclical use of 14,000-TEU-plus containerships appropriate for us now. Such is Ocean Network Express's philosophy."

Ralf Nagel
Chief Executive Officer and Member of the Presidential Committee, German Shipowners' Association


© VDR/Frank Krems

"Will the trend toward ever-larger containerships continue? A glance into the past indicates that reality has always overtaken forecasts of maximum containership size. Even now, we have not reached any absolute limit. The effects of scale also mean that large vessels fundamentally make commercial sense. However, containerships with 30, 40 or even 50,000 slots could only be deployed on very select trade routes. The benefits of scale, namely, only apply provided that larger ships are adequately loaded with cargoes. Depending on its business plan and market segment, every shipping company will decide which ship sizes make most sense. Anybody operating a liner service on the main trade routes will plan differently from an owner also deploying tonnage in the Caribbean or in the Africa trades. Smaller vessels will therefore continue to be sailing in future on many routes."

Norman Zurke
Chief Executive, Association of Port of Hamburg Enterprises


© UVHH

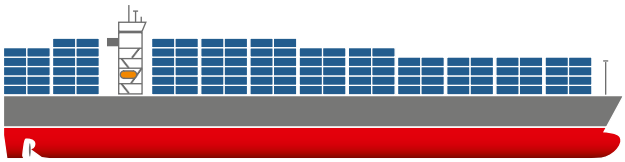
"Within the foreseeable future, the Port of Hamburg will have to adapt itself to ship sizes involving capacities of about 22,000 TEU. Still larger vessels are certainly technically feasible, yet commercial and nautical aspects set narrow limits on a further upturn in ship size. With the ships now in service, the potentials for savings on transport costs are already largely exhausted. Further costs benefits through still larger ships may be possible to a minimal extent, yet these assume that they are fully loaded. Since only a handful of ports can handle vessels with more than 22,000 TEU, flexible deployment of such mega-carriers is no longer possible. We therefore assume that no further quantum leap in ship size will occur. Companies in the Port of Hamburg are currently engaged in gradually adapting their handling facilities to be capable of handling ships with a capacity of more than 20,000 TEU. If a start can be made on implementing the adjustment of the navigation channel on the Lower and Outer Elbe, the Port of Hamburg will be well positioned for the future."

Olaf Fölsch
CEO, Junge & Co.,
insurance brokers

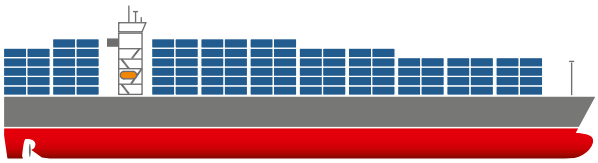
"The insurance aspect plays only a minor role in the development of ship size. Should ships grow larger, then the insurance business will adjust to the new requirements. So, even larger carriers will not fail because of that. Yet not everything that is doable, makes sense commercially. Maritime infrastructure simply cannot grow at the same pace. I'm just thinking here of the Panama Canal. This has recently been enlarged for several billion dollars, but is already too small for the largest containerships. The Straits of Malacca, for example, where at some places water depth is no more than 25 metres, also constitute a natural barrier. So I don't believe that we shall see containerships with more than 25,000 TEU in the near future. If they are to make sense commercially, such enormous ships also need to be well loaded. If we ultimately have only a few ports in China, and perhaps even fewer in Europe, that can be only to some extent be served by fully-loaded vessels, that's no good. Enormous capital would be committed, yet cannot be flexibly utilized. That would make for a tremendous and barely calculable risk."

Size development in container shipping

More than 20.000 TEU Built since 2016/17 length: 400 m, width 59 m, depth 16 m



More than 10.000 TEU Built since 2006 length: 350 m, width 46 m, depth 15 m



More than 8.000 TEU Built since 1997 length: 316 m, width 43 m, depth 14,5 m

‘Port Tours 4.0’ enhancing reliable truck handling

No handling at the terminal without a slot: A new procedure is transforming container transport in the Port of Hamburg. How are truckers and terminal operatives coping with the new software? Here’s an interim report.

For the fifteenth time today Samir Dedic, driver with a trucking company, has driven across the Köhlbrand Bridge in Hamburg. His job is to position containers. Several times per shift, the Bosnian, 32, thunders along aboard his tractor & trailer to one of the Port of Hamburg’s massive container terminals. On every tour he receives a container, takes it to the customer and waits for the big steel box to be emptied. “Then back to the terminal,” says Dedic. Beside him lies his co-driver: A cellphone. This buzzes busily on the passenger seat throughout the trip. Yet what he’s receiving are not personal messages but job-relevant details fed to him by app. Which warehouse is the box’s destination? When can he pick up the next one? What time will the one after that be ready? In the Port of Hamburg, all the answers are meanwhile supplied digitally, the newest IT project being the Slot Booking Procedure (SBV).

The newest IT project being the Slot Booking Procedure

SIMPLER PLANNING

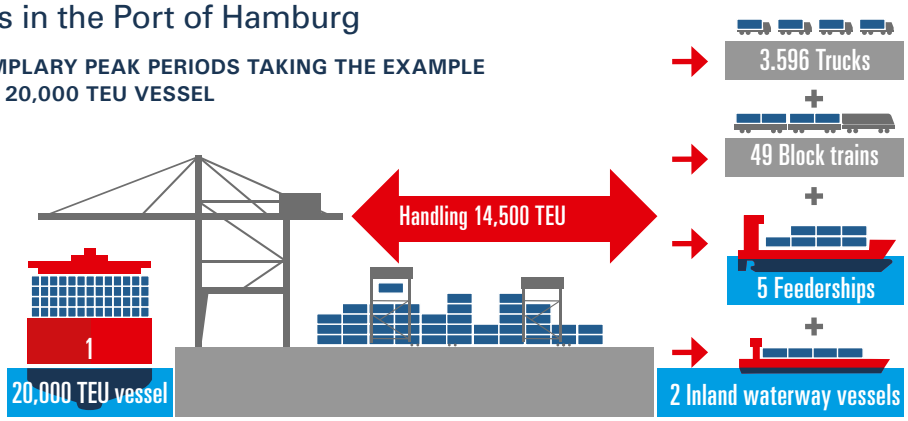
HHLA’s ‘Fuhre 4.0’ port tours project was conceived in 2011 to make port container handling faster and more efficient and to enable truckers like Dedic to do as many tours as possible. Since November 2016, advance notification of a container transport run has been obligatory at all container terminals in Hamburg. Since November 2017, only trucks allocated a valid slot have been handled. Under SBV, trucker and terminal agree in advance on a time window during which the container is delivered or collected. “Previously the motto was ‘First truck there, first served’,”

© HHLA/Rätzke

PREVIOUSLY THE FIRST TRUCK AT THE GATE WAS HANDLED FIRST. NOW SLOTS ARE ALLOCATED BY MOVEMENTS CLERKS

Transport peaks triggered by mega-ship calls in the Port of Hamburg

EXEMPLARY PEAK PERIODS TAKING THE EXAMPLE OF A 20,000 TEU VESSEL



These are theoretical values. In reality the number of means of transport will be considerably higher.

A SLOT COVERS 60 MINUTES. 30 MINUTES ARE ADDED IMMEDIATELY BEFORE AND AFTER THIS, OR BETWEEN 19:00 AND 06:00, EVEN 90 MINUTES

© HHM/Dietmar Hasenpusch

says Marijo Pavlovic, Operations Manager for the transport/trucking company Container-Transport-Dienst (CTD). "Now slots are arranged by a movements clerk at our Reiherdamm head office."

REDUCING BOTTLENECKS

The core element in SBV is the TR02 data interface between terminal and trucker. Via various software solutions, the driver can use an app or his movements clerk to notify a planned tour. These provide all the essential data in advance. The terminal checks whether any details are missing and whether handling is possible at all with the data already communicated. Finally, via EDI (Electronic Data Interchange) the trucker receives a reliable response on his cellphone: if the container and booking numbers are correct, he is given the green light and a six-digit tour planning number – and the slot he should use to bring or collect his container.

Advance notification of data has made the process faster and more efficient. "It was by no means clear before, what data the trucker would arrive with," says Jill Bödicker, head of the container office at Container Terminal Tollerort (CTT). "Everything had to be recorded manually. That often involved waiting time," reports this logistics expert.

SBV also offers a bonus by simplifying planning. For example, peak transport loads during mega-ship calls involving up to 14,500 moves – containers for discharge or loading – can be better spread over the day. "That is a tremendous advance on the previous procedure," says Pavlovic. "We can now decide at short notice and on the basis of the actual situation which tour the driver can be used for, and notify him via push message," adds Pavlovic.

One basic rule is that a slot comprises 60 minutes, for example from 10:00 to 11:00. However, 30 minutes are added immediately before and after this, or between 19:00 and 06:00, even 90 minutes. That adds up to either two or four hours. If a trucker cannot keep a slot, he is automatically sent an updated confirmation. The fixed time windows can be booked in advance of arrival, up to three days and a minimum of four hours in advance. Also acceptable are swaps, additional bookings, cancellations and re-bookings.

FASTER CLEARANCE

For some weeks SBV has been operative at all three HHLA container terminals as well as at Eurogate – and the first interim reaction is positive. "All those involved had prepared for this well. On the other hand, all of us together are in a learning phase, while the new system is settling down,"

admits Bernd Mau, Program Manager with HHLA'S HPC consultancy subsidiary. "We have received numerous constructive comments and are checking these to further improve slot booking in operation. One essential for the system is that slot utilization becomes more dependable," says Mau.

So far, more slots have obviously been booked than were required. That has caused blockage of clearance capacities, preventing their use by other truckers. Improvement is needed on this. Mau therefore needs the earliest and most reliable possible bookings from truckers. If they observe the code of behaviour (see box), that will help all those involved.

Drivers are not out on their own here: "We monitor the system continuously, talk to some selected users and if required, will resort to suitable measures to ensure correct usage," stresses Ingo Witte, Managing Director of Container Terminal Altenwerder (CTA) and responsible at HHLA for the introduction of slot booking.

TR02 and SBV enable truckers to avoid wasted tours, and terminal operators to plan better. Similar systems to coordinate clearance are in use at other major container ports such as Antwerp and New York. Digital solutions of this kind are simplifying the complex logistics process there. Trucker Samir Dedic confirms this: "The app is constantly running in the background and conveying relevant details to me. Previously I had to print out and present container and release numbers for each tour. Now everything runs on my cellphone, no paperwork required." That saves time and money. And in the end both terminal operators and truckers profit. ■

BOOKING DO'S AND DON'TS

Be precise: Book only for the container volumes that are really required for that day.
Be dutiful: Only repeat advance bookings on the expiry of the time window, i.e., push these into the next vacant time window.
Keep to the plan: Only book when a tour has been finally included in your plan.
Be punctual: Book at least four hours in advance.
Be reliable: Use all the slots booked – and avoid changing and cancelling bookings. But, if there's no alternative: Do cancel and change bookings in good time.

© Andreas Vallbracht

Hamburg's port and the container

The "American Lancer" berthed at HHLA's Burchardkai on 31 May 1968. She was not the first cargo ship to reach the Port of Hamburg with containers on board – but the first container-only ship. That day is rightly seen as historic for Germany's largest seaport. The container has more decisively shaped the Port of Hamburg ever since, overturning all previous technologies. It was the container that essentially led to Hamburg becoming a central world trade hub in the late Twentieth Century – and remaining one of the world's top ports to this day.

Introduction of the standardized sea container was a new departure for sea transport and world trade generally as the arrival of 3D-printing is proving today for industrial production. Yet whereas the advantages of three-dimensional, computer-controlled manufacture are apparent immediately, in shipping and the port industry the container met massive rejection, even in Germany, even in Hamburg. US forwarder Malcolm McLean had brought the first containership into service in 1956. In the USA, the system gradually became established by the mid-1960s. Yet scepticism persisted in shipping and port industries so widely hidebound by tradition. Shipowners and ports operators feared gigantic bad investments in the transfer from traditional general cargo vessels to containerships. Dockers and their unions believed that the new steel box would do away with thousands of jobs. They, in particular, organized massive resistance to the container.

Two personalities contributed crucially to the introduction of the new transport system in the Port of Hamburg by the end of the 1960s. Helmuth Kern, a member of the governing SPD and Hamburg Minister of Economics, later head of HHLA, persuaded the government that the port needed to be revamped for the container. As a start, he had Burchardkai re-equipped as a container terminal. He also played a vital part in attracting container liner services via Hamburg from international shipping companies. During years of negotiations, entrepreneur Kurt Eckelmann, for his part, doggedly persuaded the City of Hamburg to release the land essential for building Eurokai as Hamburg's second big container terminal. This went up opposite Burchardkai in Waltershof docks. With its fleet of barges and range of marine services, the Eckelmann family business was one of the Port of Hamburg's leading firms. At international conferences Eckelmann, who knew McLean, also contributed to standardization of container sizes. With Eurokai, he laid the foundation for Eurogate, now one of Europe's leading container terminal operators.

Hamburg's entry into the container business rapidly paid off. At the beginning of the 1980s, the port reached the landmark of one million container units (TEU) handled. The era of the general cargo vessel fi-

nally ended. Since the mid-1980s, museum ship 'Cap San Diego' at the St. Pauli Landing Stages has supplied the evidence. In 1990, the Port of Hamburg for the first time handled around two million TEUs. China's return to the world economy since the 1980s and the fall of the Iron Curtain in 1989 made Hamburg the leading seaport for Central Europe.

Using state-of-the-art technology, political leaders and port businesses exploited the opportunities that new-style world trade offered their city. In 2002, HHLA's Container Terminal Altenwerder (CTA) entered service, a facility that at the time was more extensively automated than any other container terminal in the world. In addition, HHLA expanded Tollerort to become Hamburg's fourth container terminal. The Port Railway and the port's IT systems were, and still are, being continuously upgraded, and inland links expanded. Despite all the rationalization and modernization of handling, thanks to new job categories the number of jobs continued to increase – around 150,000 people from the Hamburg Metropolitan Region now work in and with the port.

Containers now represent about two-thirds of the Port of Hamburg's total throughput. The port depends a great deal on the steel box – as shown by the trend of the past ten years. Container throughput has meanwhile stagnated at under ten million TEU. There are many reasons for this. Political and economic factors have brought changes in world trade flows. That has recently particularly affected trade with China and Russia, the Port of Hamburg's most important partner countries. In recent years, new terminals have been built on the North Sea at Wilhelmshaven and on the Baltic at Gdansk. Rotterdam and Antwerp also offer new facilities. That has caused surplus capacities and increasingly tough competition. After years of percentage growth in the 2000s, nowhere in Europe had the port industry reckoned on such a downturn in container transport growth rates. Another of the reasons is that anything that can be transported in boxes will already be found in them. The 'containerization' process is largely over now.

Yet container terminals require a great deal of space. Infrastructure renewal, which can take years, requires political far-sightedness and commercial flair – and ultimately, also luck. In the next few years, new terminals and possibly new industrial plants will be built in the central Steinwerder area of the Port of Hamburg. During the past decade an additional, fifth container terminal was initially envisaged. Owing to the crisis on world financial markets, plans for this were not implemented. That now provides Hamburg with scope for new planning measures, quite possibly for establishing liner services on European middle-distance trades here.

Development of the right infrastructure is also critical because of the rapid growth in containership size in recent years. Vessels can meanwhile reach lengths of up to 400 metres, breadths of 60 metres and maximum drafts of 16.5 metres. Although it has not yet been possible to implement the planned, ninth deepening and widening of the Elbe fairway, shipping companies are sending their largest containerships up the Elbe. These meanwhile have capacities of more than 21,000 TEU and can load twenty times as much as the 'Cap San Diego' once did. That illustrates the port's attractiveness in the international transport chain. As the logic behind liner services dictates, these latest ships may call Hamburg, but never fully loaded. For steadily growing containerships, the Elbe must for nautical reasons once again be widened and deepened in places. After a long period of planning and arguments before the courts, construction work can presumably start at the end of this year. Adjustment of the Elbe will play its part in the Port of Hamburg remaining successful in global container transport over the next 50 years. ■

Containers now represent about two-thirds of Port of Hamburg's total throughput

THE AUTHOR

Journalist and non-fiction writer Olaf Preuss, economics correspondent on 'Die Welt' and 'Die Welt am Sonntag' newspapers in Hamburg, has reported on the maritime sector for many years. His book 'A Box Conquers the World – Eine Kiste erobert die Welt' (German – 2007) – told the story of the shipping container from the German viewpoint, while 'Port of Hamburg – Hamburger Hafen' (German – 2016) – is a compact portrait of Germany's largest seaport.

50 years of change

HIGHLIGHTS OF HAMBURG'S PROGRESS AS A CONTAINER PORT

1956

US forwarder Malcolm McLean invents the standardized container as a practical transport box

1967

Prompted by Helmuth Kern, Hamburg Minister of Economics, the Hamburg government decides to expand Burchardkai into a container terminal. The port's first container gantry cranes are erected there, initially lifting containers off multi-purpose vessels

1968

On 31 May 1968 the 'American Lancer' is the first fully cellular containership to call in the Port of Hamburg. The first container train had been handled at Burchardkai only a few weeks earlier, on 5 February

1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970

1966

At Hamburg's Burchardkai the first containers are dischargched, then still by conventional cranes. Containers are simply additional deck cargo and attract very little attention

1969

Eurokai Container Terminal, now Eurogate, enters service in Walterhofer docks

1970

The challenges of the dawning container era cause two long-established shipping companies to merge: HAPAG - Hamburg-American Line and NDL - North German Lloyd in Bremen. Head office of the new Hapag-Lloyd AG (HLAG) is in Hamburg

1971

Later known as van carriers, the first straddle carriers for transporting and stacking containers enter service on Burchardkai

1974

Completion of Köhlbrand Bridge and the new Elbe Tunnel, considerably improving accessibility of Hamburg's container terminals

1982

HHLA opens a container terminal at O'Swaldkai, now a multi-purpose terminal for RoRo cargo and fruit logistics

1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987

1972

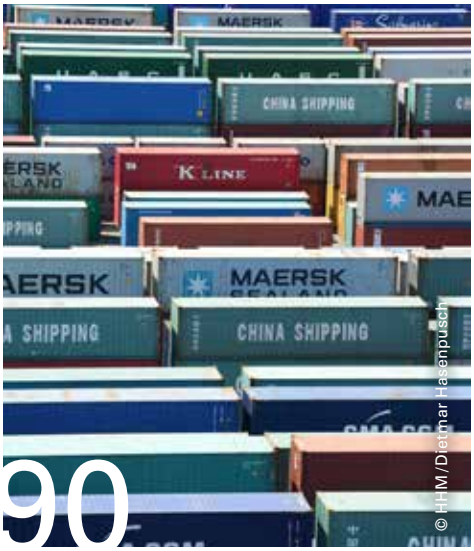
First fully cellular containerships on weekly service to and from Asia cleared at Burchardkai

1977

Opening of Container Terminal Tollerort, now owned by Hamburger Hafen and Logistik AG (HHLA)

1984

At 1.073 million TEU, the one-million mark for container throughput is passed for the first time



1990

German reunification means that Hamburg recovers its natural hinterland, achieving explosive throughput growth in the following years

1999

The last adjustment of the Elbe fairway so far is completed on 14 December. In the same year, merger of Eurokai and Bremer Lagerhaus-Gesellschaft container activities leads to the foundation of Eurogate

1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003

1996

HHLA acquires Container Terminal Tollerort

2002

Inauguration of the automated Container Terminal Altenwerder. In the same year, Hamburg for the first time handles over 5 million TEU

2013

First tandem container gantry cranes, for loading and discharging the world's largest containerships, reach Hamburg

2017

'MOL Triumph' is the first containership with a capacity of over 20,000 TEU to call Hamburg

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

2004

HHLA starts to expand Burchardkai to a capacity of 5.2 million TEU

2014

Hamburg Vessel Coordination Centre (NTK) set up to optimize mega-vessel calls

2018

Over 186 million standard containers (TEU) handled via Hamburg since 1968

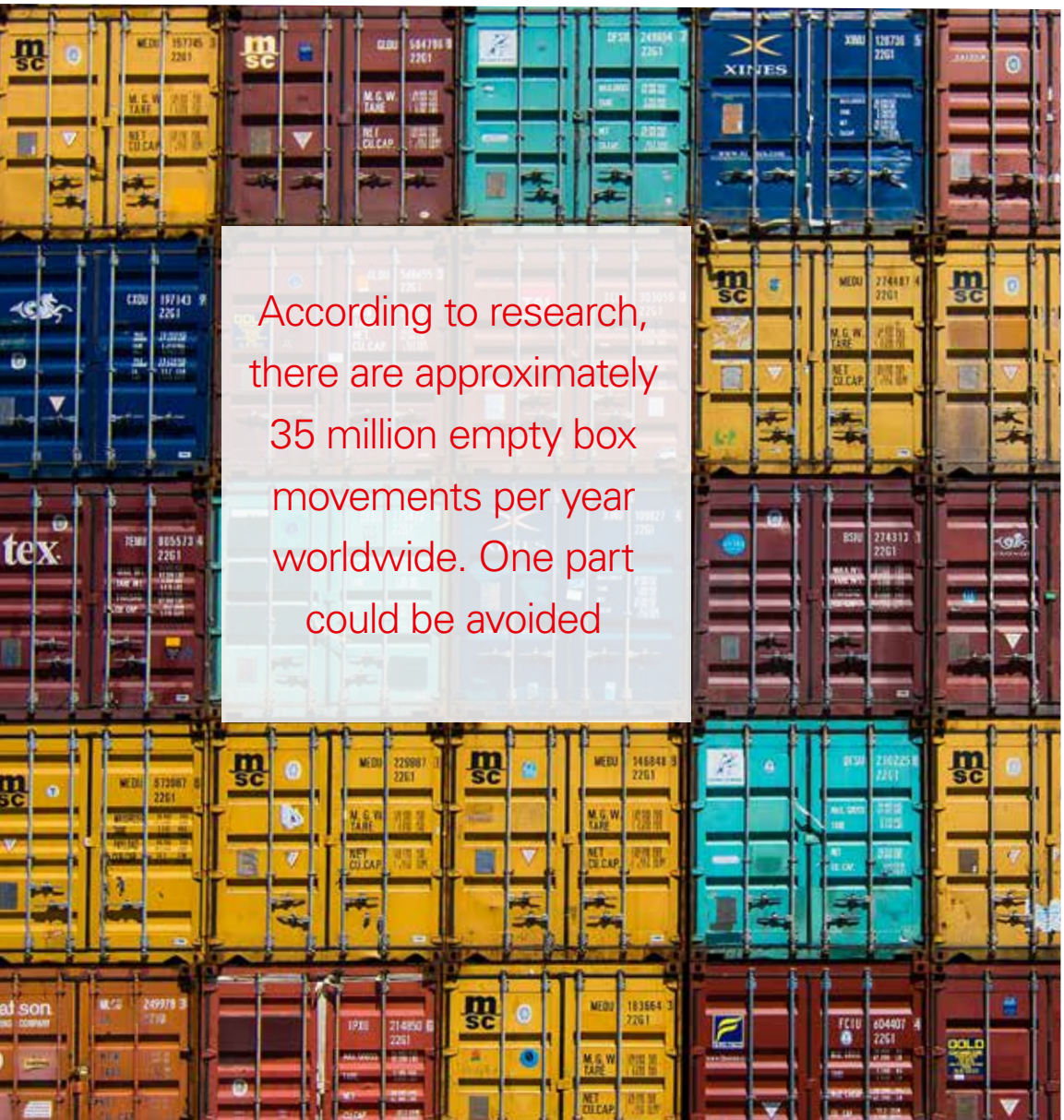
The crux with empty container logistics

Positioning and handling of empty containers costs container shipping about 25 billion euros a year. In a market typified by tough competition, one interesting field is in unlocking cost savings. What opportunities do the players have of being more efficient and commercially viable with their empty container management?

Estimates put the proportion of all containers transported empty at sea at around 20 percent. On land, this is considerably higher. One investigation by Hamburg-based CML – Fraunhof Centre for Maritime Logistics and Services – mentions 35 million empty box movements per year worldwide. These mainly arise from imbalanced trades. China, for example, exports considerably more than it imports and accordingly depends on a constant additional flow of container equipment.

A CML survey reports that almost 2.7 million empty container runs could be avoided. How? This is through online platforms, on which container shipping companies, container leasing companies, operators of empty box depots, container traders and forwarders can post supply and demand for empty containers, according to Fraunhofer CML.

xChange is a platform of this kind. It was launched in 2015 by BCG Boston Consulting Group and meanwhile trades independently from Hamburg as a separate company. Through xChange, participants can exchange details of supply and demand, make contact with each other, making free container equipment available to those interested, avoiding empty container runs. That saves money and reduces environmental pollution.



"Since we went online with xChange, an enormous increase has occurred in participant totals and transactions via our platform," reports Christian Roeloffs, Managing Director of xChange. "We started with four or five carriers. Over 160 customers are now using the platform, and these include NVOCCs, traders, forwarders and leasing companies."

xChange claims to be the only platform handling a global exchange of empty equipment, i.e. also covering sea transport. Other providers such as Avantida, Matchback Systems or Quick180 concentrate exclusively on specific national regions or continents such as Europe or the United States.

Thousands of transactions are handled via xChange every month. Growth is currently at 20 percent monthly. Roeloffs: "We are generating this upturn from our growth

in customer numbers. We are currently seeing between ten and 15 new ones every month."

One of these clients is Hamburg-based iCON International Container Service. The company specializes in trading and leasing of sea containers, with about 20,000 TEU in circulation worldwide. "We have had very positive experience with xChange," confirms CEO Achim Bunke. "The platform offers extensive access to suppliers and enquirers. Naturally we swapped experience with our partners beforehand. Through xChange, we are now coming into contact with companies that we never previously had on our radar, for example forwarders in China."

Bunke tells of a project requiring iCON to transport 100 new containers from a plant in China to the customer in Chicago. Through xChange, a shipping line was found that had a quantity of cargo for Chicago. "That's a win-win situation for all sides. We save ourselves dead-heading, and the carrier a costly movement of empty containers to Chicago. Such 'one-way use' helps a lot."

Owing to the tremendous response, this empty container exchange is now being further developed technically. While at the start only supply and demand were displayed, the system now offers complete process backing. Opportunities exist for direct communication and contract management along with framework agreements. In addition, a 'track & trace' function enables users to monitor the location of their equipment.

Roeloffs is convinced that the platform still offers great potential. According to him, container shipping lines, especially, are still highly sceptical. "We often hear the argument that what should be standing at the shipper's is a box in shipping company colours and with its own distinct branding. With such an interchangeable business as transport services, that's one of the few distinguishing characteristics." Yet in this xChange manager's experience, shippers and recipients alike don't care at all which logo is visible on the container.

Carrier's fears of a competitor being boosted by having urgently required empty containers made available are far more substantial. In addition, an exchange of site details could facilitate conclusions about its own customer structure. "It's understandable that both are undesirable," says Roeloffs. "Yet we can counter this. Every customer can lay down in advance just who he will not either cooperate or exchange data with." It remains to be seen whether price and competitive pressure will in the end lead to grasping this cost-saving potential. ■

Further details at: www.container-xchange.com

THE PORT OF HAMBURG IS VERY WELL LINKED VIA THE ELBE AND ITS LATERAL CANALS WITH THE EUROPEAN INLAND WATERWAY NETWORK. REGULAR CONTAINER SERVICES TO PORTS IN SAXONY AND LOWER SAXONY, THE RUHR AND THE LOWER ELBE SHOULD SOON BE COMPLEMENTED BY ONE BETWEEN HAMBURG AND BERLIN

The forwarder and his inland waterway craft

Hamburg forwarder Konrad Zippel has already tried twice to establish a regular container service using inland waterway craft between Berlin and Hamburg. Twice the firm has failed, cost pressure being too heavy. Now Joint CEOs Axel Plass and Axel Kröger are making a third attempt.

Port of Hamburg Magazine (PoHM): One can imagine that you have a soft spot for inland waterway craft. What is behind your commitment to this area?

Axel Plass: We are increasingly reaching our capacity limits by road and rail. For us, the inland waterway craft is an ideal extension to capacity that we can readily incorporate in our services. On the Berlin-Hamburg/Hamburg-Berlin route, we could transport an additional 60 TEU per week. So we have never relaxed our focus on the inland waterway vessel.

PoHM: Despite everything, however, you have twice failed to set up an inland waterway container service. What were the reasons?

Plass: The operative processes most certainly worked. In both cases we foundered on the additional handling costs levied in the Port of Hamburg.

PoHM: Has the cost situation meanwhile improved? And how about further challenges?

Plass: We are in dialogue with Hamburg's terminals to establish an appropriate business model for the inland waterway container service. Yet one essential for the successful opening of the service is that the inland waterway craft should suit the great majority of our customers as alternative cargo space, able to be handled at every terminal in the Port of Hamburg. Our customer structure is very fragmented. For only two to three customers, the use of the inland waterway

vessel would not pay off, as the operating costs are at a similar level to those for rail. So terminal handling needs to become routine. We are currently still negotiating on that. All other conditions are now met. We have already held binding discussions with Third parties and defined our cooperation with BEHALA in Berlin as our handling terminal. We are confident that the first inland waterway craft will commence service this summer.

PoHM: The big vessels naturally take precedence over the 'tiddlers' at container terminals in the Port of Hamburg. Is that a snag for you?

Plass: The shift in ship sizes of recent years has changed the situation at Hamburg container terminals. Whereas quayside traffic is hectic at specific times, certain times of day and weekdays are less crowded. During such time windows, handling an inland waterway craft can certainly be of interest. There's no question that we need to adapt ourselves to local circumstances. With the Hamburg Vessel Coordination Center (HVCC), inland waterway shipowners undoubtedly have a competent partner in support, who can ensure dependable rotation planning for inland waterway craft at the terminals and notify reasonable time windows for handling.

PoHM: How will you proceed in the coming weeks and months?

Plass: When we have cleared all hurdles, we shall start initially with one inland waterway vessel and one round trip per week. We'd certainly have cargo for two or three vessels. For a start, though, we must aim to gain experience once again, and check whether our new service pays. At the moment we are assuming that the inland waterway service will link terminals in Berlin and Hamburg without any stopovers. Owing to the three seasons on the Elbe – high, low water and ice drift – we plan only on a quarterly basis, giving us the chance of adapting our schedule at short notice. ■

Axel Plaß
Joint CEO of forwarder Konrad Zippel

DESPITE INCREASING DIGITALIZATION, PAPER HAS A FUTURE. SHIPPING CARTONS AND PAPER CARRIERS, ESPECIALLY, ARE GROWTH MARKETS

Paper logistics with the box

Hamburg is one of the largest transhipment centres worldwide for paper products. This demanding cargo only found its way in large volumes into containers in the 2000s. This development was considerably influenced by Hamburg-based forwarder Fr. Meyer's Sohn, the world's top paper logistics company.

"Paper is not patient, but extremely sensitive," is the word from international logistics company Fr. Meyer's Sohn, or FMS for short. "Transporting paper in containers truly makes sense," says Marcus Pyroth, CEO Central Europe for FMS. "A small tear or cut, of the kind that can occur so quickly with conventional handling, ensures that a paper roll weighing tons is no longer usable at the printer's."

Yet boxes first came into play relatively late: On into the 2000s, the two highly specialized Cellpap terminals in the Port of Hamburg were still handling large volumes of paper, mainly in the form of rolls from Scandinavia. "At the time we were the largest customer for these terminals," recalls Pyroth, who has worked for FMS ever since his trainee days. "Back then, transport and handling of individual rolls was quite simply cheaper than using a container. Yet with the closure of these handling facilities, we had to re-organize our logistics chains."

Thanks to the Port of Hamburg's excellent equipment for handling even conventional cargo, a move to other terminals was perfectly feasible. "Since then, we have relied almost entirely on the container," reports Markus Panhauser, COO for FMS. "And this brings advantages for all those involved, because now we can offer our customers complete, tailormade logistics services that go far beyond the traditional breakbulk shipments, which we naturally still offer. These range from LCL shipments, or part-loaded containers, to fully loaded container shipments, or FCLs, for which prefer to use intermodal services involving rail and/or inland waterway craft."

In addition, FMS organizes pre- and post-carriage runs, conducts cargo checks, and provides stowage advice, customs clearance, on request also warehouse stock management, in the 'Cruise control' customer platform developed by FMS. Panhauser mentions one impressive example: "Previously we used to drop off breakbulk shipments of up to 5,000 tons in their yards for our consignees – printing works, for example. Naturally, they then had to expend a lot of effort and money on storing these. We can now supply such companies with precisely coordinated container shipments to meet their needs and just in time."

Yet breakbulk business has not entirely died out for FMS, since most transport chains extend from Scandinavia via ports in the North Range to destinations in the European hinterland or overseas. Many paper products, for instance, are landed non-containerized on short-sea services in Kiel or Lübeck, re-stowed there in containers and sent on by land, mainly to Hamburg.

Having a port base on the Elbe, agree Panhauser and Pyroth, is a tremendous advantage for FMS's paper business: "For us, the large number of container liner services, as well as the great intermodal opportunities, make Hamburg an ideal hub for onward transport," stress both of them, adding: "A dash of local patriotism certainly contributes too."

Transport of forestry products today accounts for around 75 percent of FMS's business, and the bulk of that share means paper. Cellulose, forestry products such as sawn timber, logs or waste paper also feature. "With around 15 million tons of forestry products per year, we are the largest player worldwide in this business," emphasizes Marcus Pyroth, producing some more data and facts. The company has 725 staff at over 50 sites in more than 20 countries, generating annual turnover of around 750 million euros. In Europe as a whole, that makes FMS one

Marcus Pyroth
CEO Central Europe for Fr. Meyer's Sohn

Markus Panhauser
COO for paper specialist Fr. Meyer's Sohn in Hamburg

"For us, the large number of container liner services, as well as the great intermodal opportunities, make Hamburg an ideal hub for on-carriage."

of the top players in the logistics sector.

One significant basis of this success is the expertise over many decades of the forwarding firm founded in Hamburg's Altstadt precinct by Friedrich Hugo Ernst Meyer in September 1897. "Even in the container age, avoidance of damage plays a great part," realizes CEO Pyroth. Consequently, FMS and its partner, Hamburg-based consultants Intakt Transportberater, devised a system for loading paper rolls into containers. "Despite all precautions in implementing them, many of the existing solutions still involve a serious risk of damage, not just for the goods, but also the containers," says Pyroth. "When paper rolls have to be stacked diagonally and vertically, our 'JuStIn' system keeps them securely in place." Reusable airbags and tension straps are used, precisely exploiting the load limits of the cargo and the containers. "With 'JuStIn', the risk when unloading containers at the consignee, often liable to cause damage, can be substantially reduced," says a satisfied Pyroth. The airbags used can be deflated within seconds, so cargo discharge can start immediately. This sustainable system has been tested and certified by an independent testing institute during extensive trials, and is simple to handle. This guarantees a high and uniform safety level during transport.

The patented JuStIn system considerably reduces the risk of damage during container transport of paper rolls

Yet does paper logistics have any future at all in an increasingly digitalized world? "Yes, for sure!" says Panhauser. "Even if the emphases have shifted again, 2017 was an extremely successful year for the paper industry." For instance, paper demand for the traditional newsprint field, or for printed newspapers and magazines, was again lower. However, the continuing strength of the mail order market boosted total volume owing to heavy demand for shipping cartons. Another strongly growing market is for the paper carrier bags that are increasingly displacing plastic ones for ecological reasons. Panhauser's outspoken verdict: "Paper has a future!" ■

Many paper products from Scandinavia are still landed as breakbulk shipments on short-sea services in Kiel or Lübeck, re-stowed there in containers and then shipped onwards via Hamburg

Versicherungsexperten für Transport seit 1987

Die wichtigsten Versicherungsangebote:

- Speditionshaftung
- Frachtführer-haftung
- CMR
- Kabotage
- Warentransport
- Gebäude
- Lagerinhalt
- Büroinhalt
- KFZ
- Trailerkasko
- Maschinenbruch
- Stapler
- Rechtschutz
- Elektronik
- Haftpflicht
- Privatversicherung

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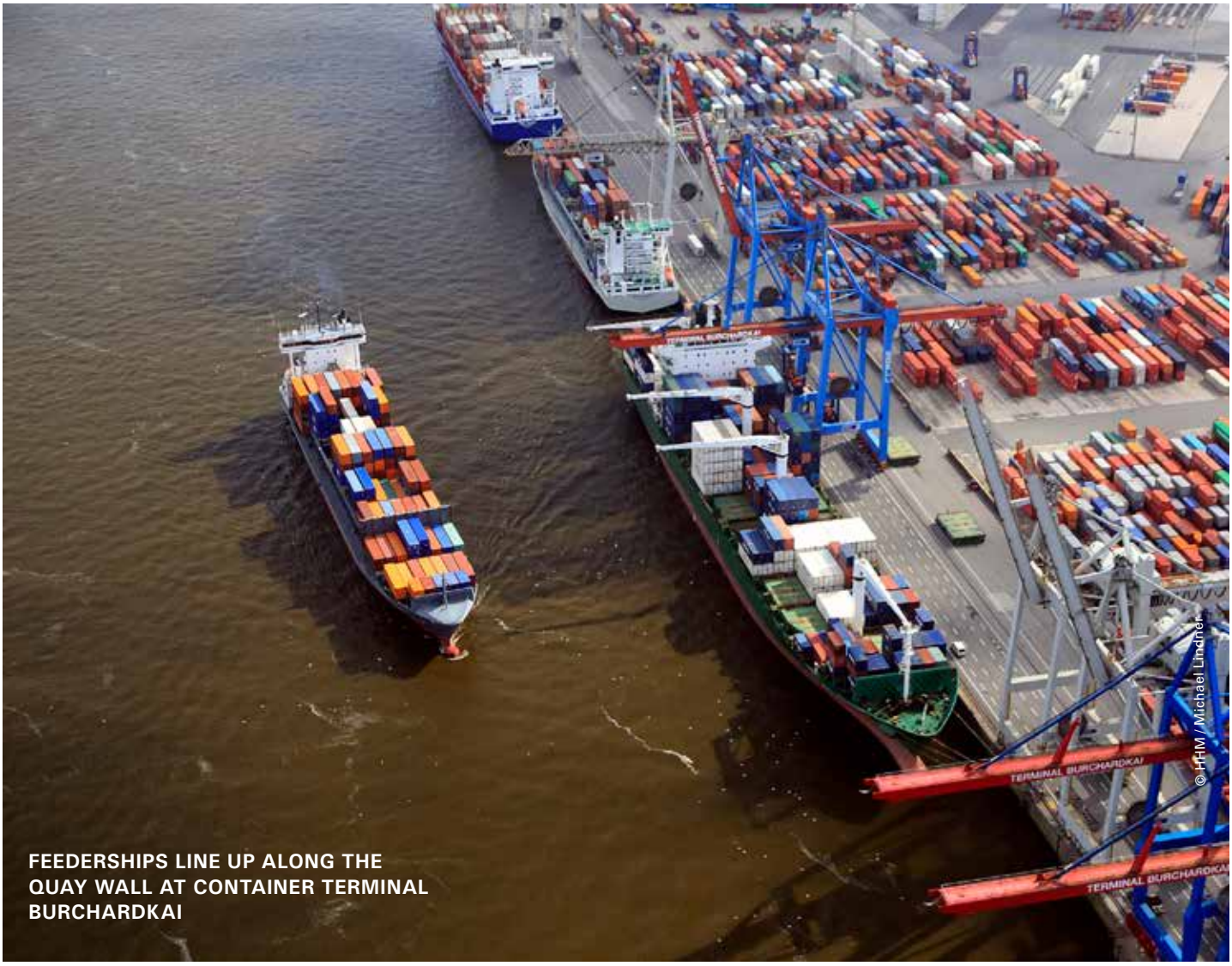

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FEEDERSHIPS LINE UP ALONG THE QUAY WALL AT CONTAINER TERMINAL BURCHARDKAI

Shortsea-Power

2018 started with the merger of two sector veterans, MacAndrews and OPDR. French shipowners CMA CGM had announced the merger of the two specialists in European shortsea trades at the end of November. Head office of the new MacAndrews brand will be in the fine Hanseatic city of Hamburg.

The merger did not come as a surprise. London-based MacAndrews & Company Ltd has formed part of CMA CGM Group since 2002, while OPDR - Oldenburg-Portugiesische Dampfschiffs-Rhederei – was acquired over a decade later, in 2015. Even before the merger, a close partnership existed between the two shipowners, who were jointly offering liner services between Northern Europe and the Iberian peninsular. Amalgamating the two companies was the next logical step for CMA CGM Group, also serving to consolidate and advance its portfolio in Europe. The new company can unquestionably claim to have amassed experience. MacAndrews is the world's oldest still surviving shipping company. Founded in 1770, it has ever since offered customers reliable transport services connecting markets in Great Britain, the Iberian peninsular and Poland. OPDR was founded back in 1882. The company has also been specializing in European shortsea and logistics services, mainly covering markets in Central and Northern Europe, Spain, Portugal and Morocco.

> Shortsea services as splendid alternative, complementing road and rail in domestic European transport

Knut Sander, Managing Partner of Munich-based international forwarder Robert Kukla, takes a very positive view of the merger: "A long, businesslike friendship links us with McAndrews and OPDR. The

merger creates structures promising even greater success on the market, from which we as customers also profit." This entrepreneur also sees the merger from another angle. Since 2015 he has been CEO of the ShortSeaShipping Inland Waterway Promotion Center (spc). Expansion and promotion of shortsea traffic is something close to his heart. "By both road and rail, we are fighting a growing shortage of space. Driver shortage and infrastructural deficiencies will continue to plague the sector. Yet containers and shipping space are almost invariably available. So shortsea services are a splendid complement and alternative."

The shortsea sector was sill relatively unknown 15 years ago, widely seen among forwarders as a competitor rather than a partner. Partly thanks to spc's untiring efforts, everything is now different. This is proved by statistics from the BGV – Federal Freight Transport Office. In 2016 freight volume handled on shortsea services reached 182.8 tons, a 1.3 percent advance on 2015. "Despite the difficult background of the world shipping crisis, structural changes and various economic/political developments, in 2017 shortsea services again gained ground," stresses Sander. "I anticipate stable volume growth again in 2018."

Reasons for this are quickly found. To meet ecological commitments, forwarders are now looking more and more to CO2-neutral means of transport. Additional strong arguments for waterborne transport are availability of shipping space, speed and rate stability. "There are naturally also some snags," concedes Sander. "One problem is the tendency for ports to be hit by strikes, especially in Southern Europe." That's a challenge that shipowners and their clients happily don't need to consider in Hamburg.

Hamburg is very well positioned in the shortsea sector, offering numerous weekly feeder and shortsea links with Scandinavia, Poland, Finland, Russia, the Baltic states, also to the United Kingdom, Ireland and Iceland, and the Mediterranean area too. The intriguing question is whether in future there will perhaps be a terminal combining all shortsea activities. Both suitable space and a comprehensive plan are available. Hamburg-based C. Steinweg (Süd-West Terminal) entered a draft plan for a shortsea terminal with a reefer-logistics warehouse in the Hamburg Port Authority (HPA) Competition for a future-oriented use of the Steinwerder-South area of the port – and this actually took second place. ■

Steel containers for all purposes

Whether on Africa's dusty roads, amid the picturesque Chinese landscape or in the colourful world of the Port of Hamburg – city and country landscapes are no longer conceivable without the familiar steel box. In recent decades the container has experienced a real boom – not confined to the transport sector.

The container's success remains uninterrupted to this day. Since being invented in 1956, it has revolutionized world trade and powered the success of an entire industry. Achim Bunke is somebody who has grasped the unrestricted use of containers in the transport industry. Along with his business partner Zheng Gong, in 1998 he set up iCON International Container Service. The company specializes in trading and leasing sea containers. Among his customers are companies in trade and industry, including the transport business.

In developing and building special containers, iCON rapidly built up a second line of business. "Especially in the industrial field, containers are needed for meeting special requirements," says Achim Bunke, Managing Partner of the Hamburg company. In this context, he's happy to tell us about a major project: "To ensure power supply on Cuba, at the time we supplied around 800 specially modified containers to a renowned German plant constructor. These were fitted with diesel engines." The box's contribution towards the 'revolutión energetíca' or 'energy revolution' can still be admired today on the reverse-side of a ten-peso banknote. "Containers have for some time no longer been used solely for traditional freight transport. We support numerous exciting projects, with these steel boxes deployed as noise barriers in the building industry, as transformer sheds in solar parks, or for post-catastrophe drinking water treatment plants."

"As before, the great majority of containers that we have in circulation are used for transport and storage purposes," adds Wulf Aufgebauer, General Manager for iCON. "Customers value us as reliable and service-oriented partners. In addition, we gain points with an immense product portfolio plus the permanent availability of numerous very different containers in Europe and the Americas." With intense competition on the market, such factors are crucial. Barely a single product, after all, is

MOST ICON CONTAINERS ARE USED BY TRADE, INDUSTRY AND THE TRANSPORT SECTOR, BUT THEY ALSO HAVE THEIR UNUSUAL USES, FOR EXAMPLE IN THIS CASE AS A MOBILE PLAYGROUND

© KuKuk Box

more normed and more interchangeable than a container."

The steel box has hardly changed at all since the first container was built. The first containers were still made of aluminium, clad inside with wood waist-high, and with none of the typical corrugation of the walls. In the 1970s production switched completely to steel, and the design gradually modified, permitting optimization of the box's unladen weight and stability. "The container is now a mature product. Nevertheless, new ideas and attempts to revolutionize the container are repeatedly coming up," says Bunke.

In recent years there have been intriguing schemes for a great variety of container innovations. Many of these aim to reduce transport of empty boxes. The Tworty Box, for instance, consists of a special 20-ft container that can be added to another Tworty Box to form a fully functional 40-ft container offering uninterrupted interior space. Holland Container Innovations has pursued another idea. With the 4FOLD, it has developed a folding 40-ft high cube container that can be shrunk into a quarter of its original volume. "In practice, as a rule these container innovations do not gain acceptance, with the disadvantages, for example of higher maintenance and repair costs, proving decisive," says the Managing Director.

Even after 20 years, Achim Bunke remains as fascinated as ever by containers. Over and over again, he's surprised by the host of possibilities for using them – a container can be virtually anything. A box is what you make it. Just recently an order from Stuttgart playground builders KuKuk Box demonstrated this. The company rebuilds containers as mobile and imaginative playgrounds. Yet this idea was born of an emergency. KuKuk Box was commissioned to build a playground in a crisis area in Nepal. The material for this was delivered in a container. Yet return transport of the box would have driven costs above plan and so on the spur of the moment it was integrated into the play equipment. The outcome was so persuasive that KuKuk Box then further developed and perfected the idea. And the scheme gained acceptance. These container playgrounds have now been erected in numerous European cities. "Orders from playground builders KuKuk Box are close to the hearts of the whole team and are a joy for us every time," agree the two container professionals. ■

Write to me at: facebook.com/ppickhuben

PETER PICKHUBEN'S PINBOARD

Happy Birthday IRISL

It is not only Hamburg, with the container, that has every reason to welcome a 50th anniversary in 2018. The Iranian state shipping company IRISL also celebrates its 50th birthday this year. Germany is traditionally Iran's largest Western trading partner, and the Port of Hamburg plays a key role in relations between the two countries. For generations, close and friendly connections have existed in Hamburg with Iranian companies and organizations. Even the trade sanctions between 2009 and 2016 were unable to sever the tight bond. After relaxation of sanctions, IRISL inaugurated the ECL Europe Container Line service between Hamburg and the Persian Gulf in March 2016. Berthing at Eurogate, the 'Azargoun' (photo) was the first Iranian containership to call in the Port of Hamburg for ten years. A multi-purpose service followed just a month later, handled as previously by Hamburg liner agency Peter W. Lampke at C. Steinweg's Süd-West Terminal. The volume of Iranian cargo in Hamburg has since climbed steeply again. Container volume rose from 600 to over 11,700 TEU in 2016, and indeed to over 16,000 TEU in the first three quarters of 2017.

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CMA CGM CHOOSES LNG FOR ITS MEGA-CONTAINERSHIPS

French shipowner CMA CGM has ordered nine new mega-containerships. Each of these will be capable of loading up to 22,000 TEU, a total unmatched by any previous containerships. The company's present flagship, the 'CMA CGM Bougainville' (photo), transports around 18,000 TEU. Currently seen as the world record holders are OOCL newbuilds such as the 21,413-TEU 'OOCL Hong Kong'. This order for newbuilds is therefore of itself worth reporting. Yet what's special is that the new ships will be run with Liquefied Natural Gas (LNG). That makes CMA CGM the first container liner shipping company to have its ships equipped with this environmentally friendly propulsion technology. So far the pioneering role has been played by cruise-ship operators. To operate a vessel with LNG improves her ecological footprint by at least 20 percent. Hamburg Port Authority also welcomes and promotes the environment-friendly fuel with concessions on port dues.

© CMA CGM

WITH PORT SCOUTS ON A DISCOVERY TOUR

What really goes on in port terminals? How does the interior of a container look? And what sort of things can be carried by ship? Port Scouts know the answers. Backing the project are Hamburg Port Museum, Hamburg Teacher Training & School Development Institute and Hamburger Hafen und Logistik AG (HHLA). The scheme gives fourth-grade Hamburg schoolchildren the opportunity of gaining an insight into the port. In the Port Museum they can readily experience just how work in the Port of Hamburg used to look and how it does today. One highlight is a container specially fitted out for the Scouts. This features cargo and meanwhile everyday items that first reach us in containers. The box graphically demonstrates where our track shoes, jeans, tea, bananas and much else originate. The trip continues to the automated HHLA Container Terminal Altenwerder. Here the youngsters gain a close-up view of how containers and mega-carriers are handled. This is truly a special day out for them, punctuated continuously by gasps of astonishment

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'Home Sweet Home' in a container

Cities lure crowds of people, yet living space is growing scarce and in many places, impossible to afford. One new trend in conurbations is towards 'Tiny Houses', frequently offering no more than 15 square metres of space. That can mean living in a container. Thinking initially of crude building-site containers or the like, these may sound uninviting. Yet containers as mini-dwellings have something to offer. A used 40-ft container costs about 2,000 euros, offers 26 square metres of living space and ample scope for creativity. Container houses are robust, sustainable, comparatively low-cost and rapidly erected. They save space. In Berlin, for example, containers have been used to provide a student hostel under project EBA 51. The stacked boxes offer small apartments with sleeping and living areas, kitchenettes and bathrooms, or everything necessary for living.

Grafik: HOWOGE

Anniversary Year 2018: Plenty Happening on the Elbe!

Plenty will be going on along the Elbe to mark the 50th anniversary of container handling in the Port of Hamburg. Numerous events and several broadcasting channels will be suitably celebrating this. For instance, we shall be highlighting container handling at this year's Port Birthday. Between 10 and 13 May, Port of Hamburg Marketing will join member companies in presenting the host of career opportunities in and around the port. Venue: Sandtorkai, near Wilhelminenbrücke. Also there, displays and films will illustrate the thrilling progress of containerization in the Port of Hamburg. Without it, today's world trade would be inconceivable. Containers are also a top feature of our popular harbour tours. Seven port companies will once again be opening their premises during this year's Port Birthday, proving interested visitors with exclusive glimpses behind the scenes of Germany's Gateway to the World.

For full details of the Port Birthday programme:
www.hamburg.de/hafengeburtstag-english

Containers on the World Wide Web

Over the past 50 years, the container has fundamentally changed the Port of Hamburg and much else, revolutionizing world trade and laying the foundation for globalization. The container has influenced the life of every one of us. Against the background of this year's anniversary, a new website offers a view of the Hamburg Container Story. Included here are exciting box-related stories, historic and current film and photo material, spectacular statistics and details of the ongoing anniversary programme.

The Hamburg Container Story at
www.hamburg-container.com

Or visit us on Hamburg Container Port's new Instagram channel. This says it all about containerships, terminals, the port story, and naturally the workers who literally every day shift the world anew.

Hamburg as container port on Instagram:
instagram.com/containerhafenhamburg

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