

# THE DIGITAL TRANSFORMATION

**PORT OF HAMBURG MAGAZINE**

**DIGITALIZATION IS DAILY ROUTINE IN  
MANY FIELDS. AMONG THEM IS THE PORT  
OF HAMBURG.**



## Dear Readers,

This text has been written by software that I'd fed with a few key words. Rightly, you won't believe that. Yet it would be possible. We just need to acquire the appropriate program.

Yet that brings me to our topic: Digitalization is daily routine in many areas. The Port of Hamburg is one of these. Take HPA – Hamburg Port Authority as one fine example, they have installed sensors on the Köhlbrand Bridge to improve maintenance. These transmit all data to head office, where the state of the bridge is monitored. Should discrepancies occur, the experts set off and examine the relevant spot more closely. This example is part of a complete digital strategy developed by HPA. Jens Meier, Chairman of the Executive Board, explains in a fascinating interview how this looks. Enough said, and perhaps we can expect fewer traffic jams within a few years – at least in the port area.

Many start-ups that have found a new home in Hamburg aim to contribute here. Backed by the Ministry of Economics and HHLA, Digital Hub Logistics has expanded and now offers 3,200 square metres of space for 84 quite new companies in their initial phase. They are receiving support from up to 24 established companies.

Among these is also HHLA – Hamburger Hafen and Logistik AG, that with its HHLA Next, has founded a subsidiary intended as the group's digital offshoot. That also involves investment in highly promising start-ups. You can learn how this functions in a meaty feature article.

It's not only the port industry that is just now digitalizing its own processes. Shipping companies are also working at high pressure to gain a better overview of cargo. Hapag-Lloyd is one wonderful example.

A close look at the contents should prove worthwhile for all of you. I hope that you enjoy reading them – and stay curious.

AXEL MATTERN  
CEO Port of Hamburg Marketing

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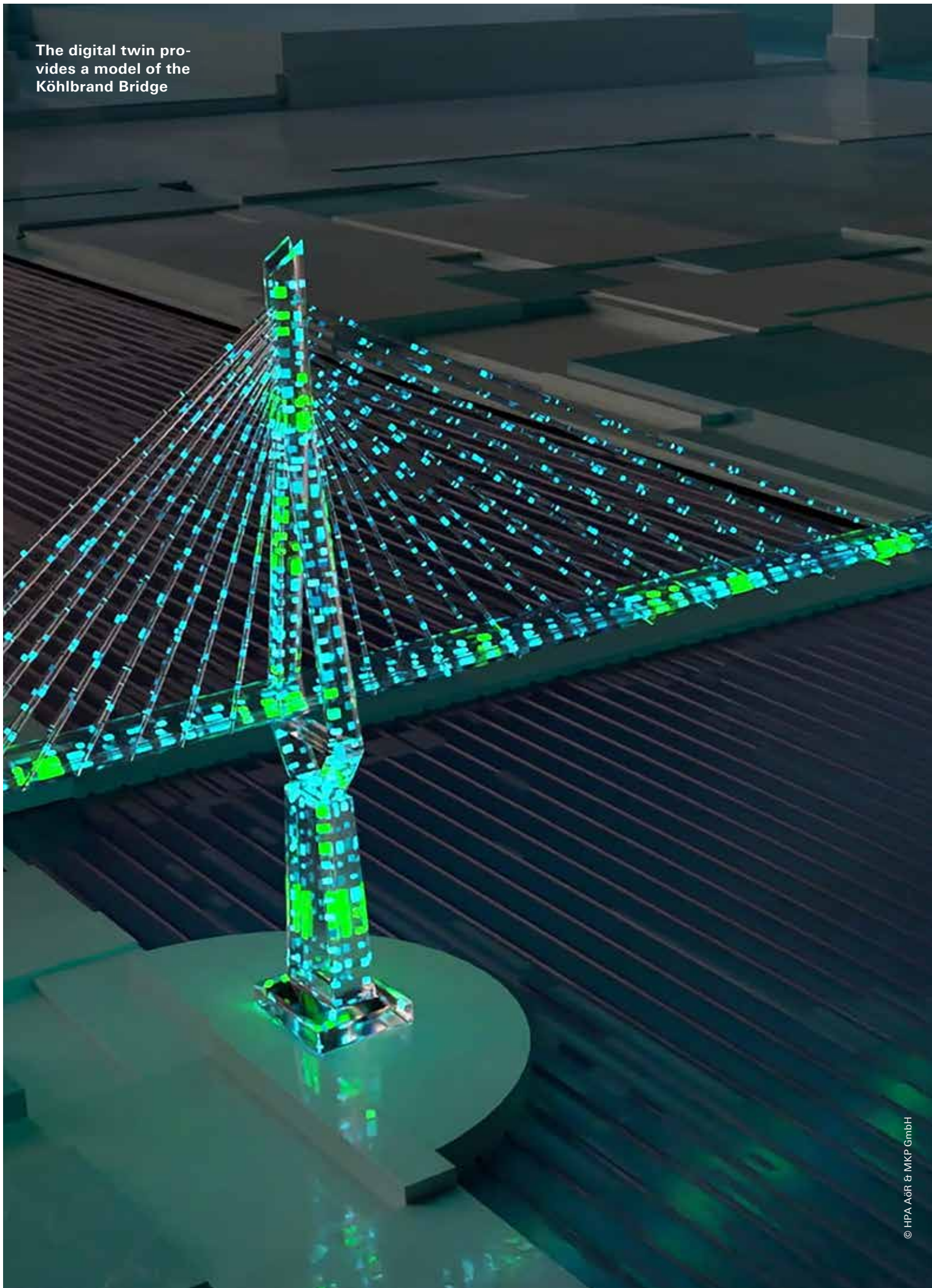
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HAFEN- UND LOGISTIKSTANDORTE IN  
NORDEUSSLAND UND SKANDINAVIEN

The digital twin provides a model of the Köhlbrand Bridge





# Ensuring that the vital statistics add up

**Digital twins help us discern the need for maintenance and repair work on infrastructure and buildings. Weak points are discovered prior to the occurrence of serious damage. Here are some examples from the Port of Hamburg, the German rail network, and the transport and logistics sector.**

The Köhlbrand Bridge is a Hamburg landmark and the backbone for industry and transport in the Elbe city's port. With a length of 3.6 kilometres, the structure is suitable for the job, but meanwhile also high-maintenance, being almost half a century old, i.e., no longer young. Catering for up to 38,000 vehicles a day, it also has much to cope with. The

diagonal cable bridge has accordingly been given a digital twin. "We have embarked on this pilot scheme in order to tackle problems arising from our operative business," says Christof Ullerich, the civil engineer who heads the Bridges and Structures Competence Centre for HPA – Hamburg Port Authority.

What is a digital twin? To put it simply, this consists of a data clone of a real object, based on electric sensors. One of these would identify essential maintenance and repair jobs, for instance on the Köhlbrand Bridge in the Port of Hamburg. “We launched the ‘smart Bridge’ project about three years ago. This has meanwhile become a large-scale demonstration of preventative maintenance and automated traffic control,” says Ullerich, responsible at HPA for innovative projects. For the one on the bridge, 520 sensors were mounted, among other things to provide condition monitoring.

“The sensors enable us to see what is going on out there. This helps us to assess the situation far better,” he adds. The structure is displayed as a BIM, or Building Information Model that pools data flows. Analogue data like the findings of structural examination under DIN 1076, and digital data from continuous monitoring by sensors, are assembled and analysed there. “If the sensors produce a spike when a truck thunders across the bridge, roughly speaking this resembles an ECG measuring heart rhythms when somebody rushes upstairs.” Everything should then settle down again. “Like the doctor, we record the vital parameters of our bridge,” explains the engineer.

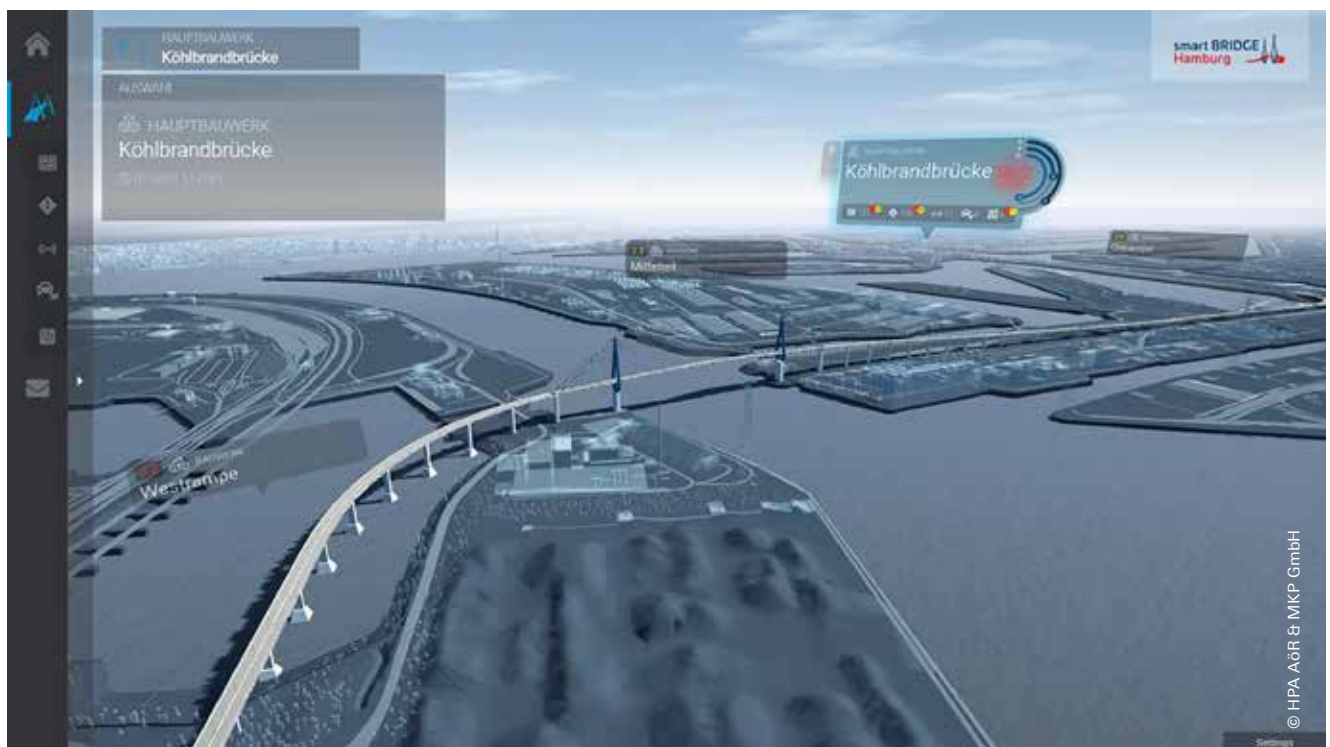
**A CLONE ENSURES SHORTER DOWNTIME**

The clone should minimize downtime and make costs as well as maintenance jobs easier to plan. The sensors are therefore attached at critical points, for example on the bridge’s diagonal cables. These

acoustic sensors capture the sound produced by vibrations of the cable. Should this change, that suggests that something is wrong. So, somebody is sent there to check whether all is in order. “When we launched the project, it was caused by problems with the Köhlbrand Bridge,” explains Ullerich. With funding assured, HPA was actually able to tackle this major project.

The bridge ramps are of concrete and the middle section of steel, making the range of lessons to be learned extremely wide. “We wanted to fully exploit the limits of what is possible, using a digital twin,” he says. The result is that the sensors permit an individual view of every structure and receipt of measurement findings as firm facts. The engineers are then far better able to assess what needs to be done at which point, meaning that in the case of the bridge, it does not always need to be closed immediately to traffic, should a problem arise. These announce themselves, as the example of the acoustic sensors on the steel cable demonstrates. Until now, from time to time an inspection team have had to put on their climbing boots.

Yet the ‘Digital Twin’ topic goes far beyond the ‘smart bridge’. HPA is pursuing the vision of developing a Digital Port Twin, or a digital twin of the entire Port of Hamburg. A host of individual twins are already out there. The Elbe has one, for example. This shows how deep it is at which points, and where sediment needs to be dredged off. “We know



Virtual scrutiny of the Köhlbrand Bridge reveals the actual state of the structure



the state of the tide, the current – everything is measured by sensors,” explains Ulrich Baldauf, an information specialist responsible for Research & Development at HPA. In addition, all ship movements are known through AIS – the Automatic Identification System, along with the times required for the cargo discharge. This facilitates optimization of processes. “We also have a twin of the road traffic,” he says. This in its turn knows the score on traffic and the state of the roads in the port.

Until now, all these clones have simply been used individually. “However, we see great potential for combining all the individual twins in a Total Port Twin,” says Baldauf. “The aim would be to establish what impact, for example, a delayed ship arrival or a bridge closure makes on road traffic or emissions. It should be possible to create overarching monitoring and to specifically intervene where something is occurring.”

The HPA also wishes to use this data for strategic port planning. Differing scenarios, for instance, can be simulated for the utilization of a new area, e.g., whether it would make more sense to build a hydrogen or a container terminal there, or better to put up a warehouse. Each case would have differing repercussions on marine and road traffic, costs and emissions. These can be calculated in advance.

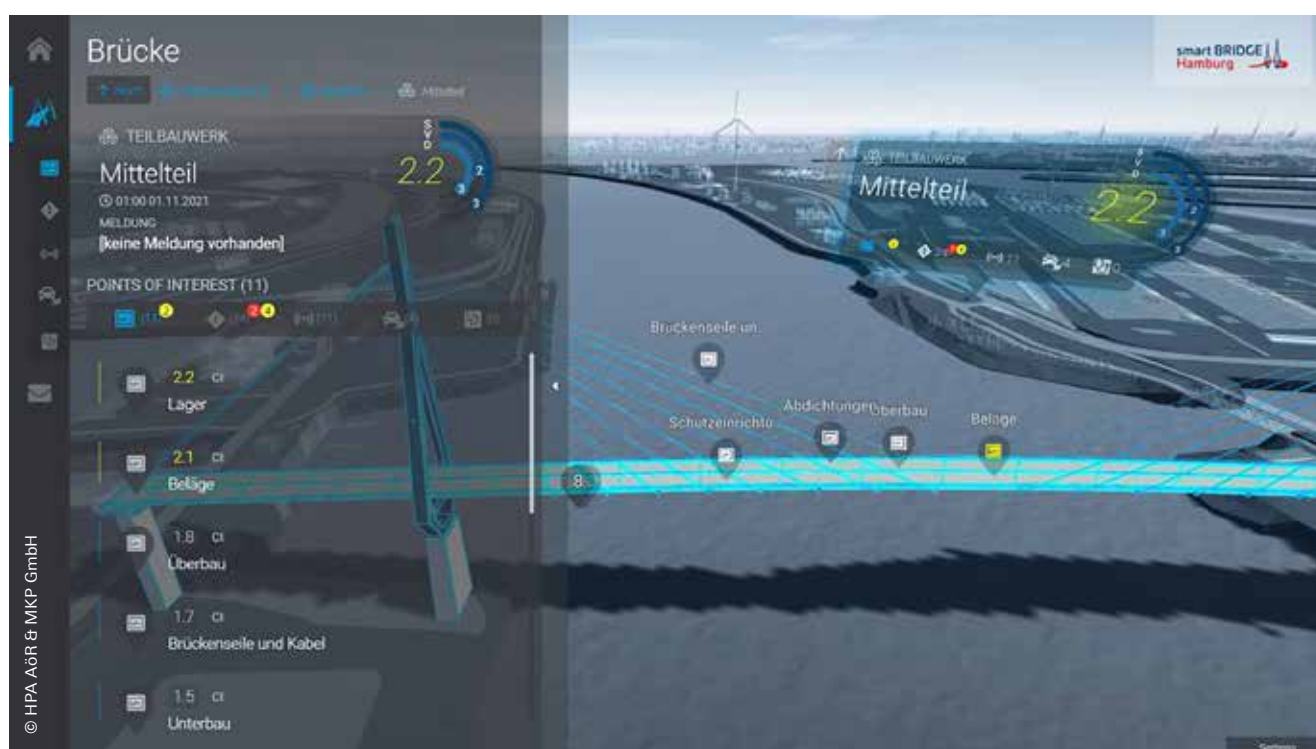
### MEASURING SYSTEM PRODUCES THE DATA

Similarly, this technology is already in use outside the port. For instance, the relatively new company

Railwatch from Bonn has developed a measuring system that can conjure up the twin of a freight train – while this is passing. The background: Normally, a wagon master is expected to march up and down all sides of freight trains standing ready to depart from a terminal, whatever the weather, and to check them manually for damage. If he detects something wrong, then the freight car affected needs to be shunted out of the 600-metre train – a time consuming and cost-intensive process.

“Along the track, we can scan trains at a distance of up to eight metres and use HD photos to discover the technical state of the locomotives or freight cars,” says Tobias Frede, COO/CTO for Railwatch. On arrival, a damaged wagon will no longer even be positioned for the onward journey. In Europe’s public rail network, the company has already installed 25 of its ‘Pulsar’ measuring systems. These can also recognize UIC wagon numbers and lettering and hazardous goods warning panels.

“To be able to create a digital twin, we require all the details of a wagon, the number of axles and distance between them, and goods loaded, which our system digitalizes and automatically captures during transit,” explains Frede. For instance, this enables Railwatch to calculate how long a brake block will still last before needing to be changed. “The system also determines whether a wheel rim includes a flat spot,” he adds. This is discerned acoustically, since if a wheel is making a din, then some-



Every element fitted with a sensor can be continuously monitored

**Metrans and Railwatch  
at work on digital  
railcars**



© HHLA

thing is wrong. The digital twin supports the wagon master in his work. He is notified of any cases of damage discovered, so that he can localize these more rapidly. He then decides whether the wagon needs to enter a workshop or can remain in service. Railwatch stations stand along the route on private land, without needing to have any link with infrastructure, i.e., tracks. The equipment is erected within four hours and simply require an electric power connection," he adds. Railwatch uses the mobile radio standard 5G, this enables data captured to be rapidly transmitted for processing to the company's own Cloud. The Pulsar is equipped with a special camera and sensor technology for the purpose. On commission, the company will also install its measuring stations at the entrances to industrial sites, seaport terminals or frontier crossings.

Last year, for example, Railwatch joined HHLA's rail operator Metrans Rail Germany to launch the 'DigiTwin' field test on digital backing for investigation into freight car technology. "This 'DigiTwin' enables us to push on with digital transition in railborne freight traffic," explains project manager Frede. Under its 'The Future of Railborne Freight Traffic' program, the BMVI or Federal Ministry of Transport and Digital Infrastructure is providing funding of around 3.5 million euros. The experiment will continue until end-2023.

**DIGITAL AND ROAD SHIPMENTS  
RUN IN PARALLEL**

Digital twins also exist already for road freight traffic. Cargo Support of Nuremberg, specializing in flexible digital solutions for freight transport, has one software program in its portfolio capable of processing all relevant data in real time. "We have developed a tour model that reflects the actual transport and remains dynamic at all times," explains CEO Volker Hasch. The model presents the entire supply chain, from truck via rail to ship movements, and covers customers and recipients along with the Customs. "Here the digital twin reflects the reality of all movements, he adds .

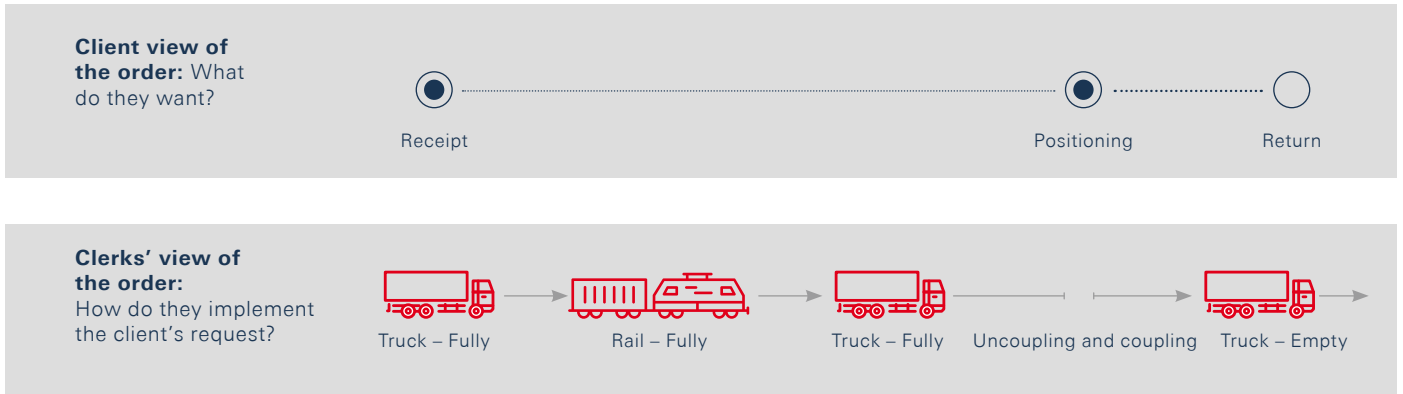
*"We wanted to fully exploit the limits of what is possible, using a digital twin,"*

The reality needs to be individually set up for every shipment and can change during a tour whether because of provision for an additional stop or the need for a truck to take another route on account of a road closure.

If a ship arrives late, that also has repercussions for planned truck movements. "Then the movements clerk needs to react at extremely short notice," says Hasch. The task of the digital twins is to monitor and check separate sections of the shipment. This is done by locating the load unit or truck, the train and ship, but also through truck drivers able to notify current status with the cargo support app. "With even the slightest discrepancy, the digital

## Tour model – digital twin

Process-oriented movement planning



twin notifies the movements clerk so that he/she can decide what should be done next,” explains Cargo Support CEO Hasch. With many shipments, it has meanwhile become impossible for the clerk to notify every customer by telephone. In possession of all the assembled data, the digital twin can intervene. Whether the user consults the Cargo Support

app, or his own systems, is immaterial. All data, even from external systems, can be transmitted to the digital twin.

The digital twin can also be used for simulating shipments, for example to ascertain on which routes it is better to use rail, where the aim is to reduce CO<sub>2</sub> emissions. ■ Nicole de Jong (njo)



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“We are open to ideas”

**Jens Meier, Chairman of Hamburg Port Authority's Executive Board, uses this interview with Port of Hamburg Magazine to stress the significance of continuous digitalization for the Port of Hamburg.**

*Digitalization of processes is a daily routine in the Port of Hamburg. Since when has Hamburg Port Authority addressed the subject? Which were the first projects to be started?*

HPA started at a very early stage to consider the benefits of digitalization. To optimize traffic flow in the restricted area of the port, for example, we installed Bluetooth, video detectors and induction strips on the roads there. We presented the results to an international audience in 2015 at the IAPH World Port Conference. This included one of the first IoT projects, smartROAD, which aimed to demonstrate ap-

plications of an 'intelligent road' on selected sections of road in the Port of Hamburg. Apart from opportunities for identifying and managing traffic, along with lighting control for pedestrian and cyclists, the project demonstrated how modern sensor systems collected and display data on the state of infrastructure and environmental impacts. In cooperation with partner companies, all relevant IT and communication technology systems, sensors, video cameras and network communications components were installed on selected sections of road in the Port of Hamburg in order to further the idea of a smartPORT.



© © HPA, Andreas Schmitt-Wiethoff

***What do you feel, how far have you progressed in recent years in digitalization generally?***

Thanks to the commitment of all those involved, we have come a long way. Modernization of the Port Railway – partly through digitalization – has helped make this link between cargo handling terminals for container ships and the European rail network one of the main factors making the Port of Hamburg competitive. Yet the new building for the Nautical Centre, with the digitalization of maps this involved, or the deployment of drones in maintaining our facilities, are just a few of the main examples of how we have modernized the port step by step. Installation of sensors, for example on a number of streets in the Veddel district, is still playing its part now.

Naturally we must stay on the ball. It's therefore important that we should not want to implement everything ourselves, but instead see the port as a test-bed for innovative projects, and remain open for ideas.

***Let's divide progress between the different means of transport and start with roads.***

We are currently seeing a major transition on vehicles. E-vehicles are no longer by any means rare on the roads. The first three battery-electric Nikola Tre trucks in Europe have been undergoing tests in the Port of Hamburg since September 2022.

In combination with alternative propulsion, digitalization offers a good opportunity to use infrastructure in the best possible way. We introduced the MOZART project at the ITS Congress. MOZART – Mobility, Optimization, Digital Twin, Analyses, Real Time, Traffic – aims to back up the adaptively regulated light signal equipment with an overarching, continuous real-time

selection of programmes. Improved traffic flow reduces the need for vehicles to brake and accelerate, which leads to a reduction in pollutant emissions. Greater ease of planning tours for companies is another positive aspect. Time is a most important factor there. If traffic is to be appropriately controlled, many calculations are essential within seconds, if not even milli-seconds. In the MOZART project, a digital annealer unit was tested during the first two stages.

The two developments quite obviously need to be considered in the port from the sustainability angle. With innovative propulsion systems and modern traffic control, we are making a considerable advance on decarbonization. Yet we are also reducing CO<sub>2</sub> emissions and slowing the increase in noise in the port.

***HPA only just recently installed sensors in a novel asphalt surface. Which digital processes will these be backing up?***

In the course of road renewal on the Veddel, 66 acceleration and temperature sensors were installed. These

“Improved traffic flow reduces the need for vehicles to brake and accelerate, which leads to a reduction in pollutant emissions.”

facilitate receipt of data on strain on the road, and hence optimization of maintenance management. They also serve to improve the traffic control system. Even during building work, temperature sensors provide data on asphalt temperature. Recording vibrations and pressure, acceleration sensors measure the actual strain on the road caused by axle loads, speed, acceleration and braking forces. Data from the sensors facilitates conclusions about the state of the surface and load-bearing capacity. Inclusion in a traffic model for optimizing traffic flow is also a possibility for the future. .

“With smartBRIDGE, more than 520 sensors are installed for the purposes of predictive maintenance.”

*The Port of Hamburg Railway is an extremely vital carrier for the Port of Hamburg’s hinterland infrastructure. Many processes also require automation on it. Could you briefly describe some of these?*

Along with extensive investments in the Port Railway’s physical infrastructure, others in such IT systems as transPORT rail, a central exchange platform for rail-re-

lated data and transport handling, are contributing in the port to an improvement in infrastructure utilization and resource usage. These are thanks to improvements in operational planability and scope for reaction. transPORT rail is a traffic management system for rail transport in the Port of Hamburg, offering an effective interface for freight and data transport. Users obtain access to the system via the interface or via the internet -Web-Client. The users consist as a rule of loading points and rail operating companies. By issuing an appropriate power of attorney, the latter can entrust input of their data to rail operators or other service providers.

*A further major area for digital application is infrastructure maintenance. Digital twins permit virtual display of structures like the Köhlbrand Bridge. What do you anticipate from such applications?*

One very prominent example is smartBRIDGE, a pilot project that aims to optimize maintenance of the



**HPA chief Jens Meier uses an in-company video format to present digital solutions in the Port of Hamburg**

© HPA, Andreas Schmidt-Wiehoff

Köhlbrand Bridge in the Port of Hamburg. The software creates a digital twin, a real-time display of the actual bridge based on all the available data on its condition. The idea is to improve maintenance of it by all the players entrusted with this. With smartBRIDGE, more than 520 sensors are installed for the purposes of predictive maintenance. The Digital Port Twin project means a continuation of HPA's augmented and virtual reality projects. The digital twin is to support planning of future infrastructure projects, by providing better, more secure and efficient displays of complex processes. Some examples of applying it include virtual displays of HPA control consoles and the incorporation of sensor data. All the consoles visualized in 3D, and the digitalized process sequences can be displayed in the Digital Port Twin and used for optimization moves.

***With homePORT, you have made a generous space available for innovative companies. Are there any synergies here that will boost further digitalization of the port?***

homePORT is an innovation campus situated at the heart of the Port of Hamburg. It aims to give ambitious players in the port, academics and official bo-

dies, the opportunity of developing and realistically testing product innovations, and achieving significant results for the maritime/port industry.

homePORT offers test areas for driverless activities, a start/landing place for drones plus adjacent water areas for water drones. Players in the port enjoy the opportunity here of conducting trials and experiments, of collaborating with additional partners. They aim to advance innovations for the maritime and logistics sectors – on water, land and in the air. Our objective is to contribute towards boosting efficient use of port space and further reducing harmful environmental influences. .

***The HPA is making bold progress with digitalization. Don't other ports tend to profit from your experience?***

We are in continuous exchange with ports in the context of IAPH and chainPORT. It's essential, for one thing, to look outwards and to learn from each other; and otherwise it is quite obvious that we need to coordinate, since along the supply chain, go-it-alone solutions make no sense. That's not a matter of sharing around all data, but just the stuff that makes the supply chain more effective. ■ Ralf Johanning



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## HHLA Next invests in digital innovation

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### **HHLA Next is looking for future solutions for customers and users for secure climate-neutral transportation of goods worldwide.**

HHLA Next was founded as an innovation and venture-building entity with a focus on digitalization and sustainability in maritime logistics. The aim clearly stated by Business Manager Simone Lode is: "To develop successful products and business models from ideas. Either in the form of in-house developments or through investing in innovative companies."

Technological development and innovative business models will be monitored using specific criteria to enable early evaluation. At the same time HHLA Next will create an environment in which specific, market-ready ideas can be developed sustainably. "We are looking, on the one hand for companies that fit to HHLA and where we can invest, on the other hand, we are ourselves founding companies. Explains Simone Lode, adding: „We have a

team that is continually checking market trends and new technologies and looking worldwide for interesting companies. We have a database where we sort these companies into various segments, strategic innovation fields, opportunity spaces, and concrete application scenarios. For example, along the supply chain to driverless vehicles or autonomous handling. We are continually monitoring the companies in our database, watching for the right moment to make contact and kick-start investment."

The decision on what form our involvement in the companies could take is taken case by case. Basically HHLA Next has decided to accompany companies in a growth phase with the flexibility and high-reactivity necessary. As an umbrella company we have the necessary framework, structure and processes ready.





### EARLY SUPPORT WITH AS LITTLE RISK AS POSSIBLE: FUNDS

In order to invest in start-ups in their early phase HHLA Next uses funds such as Motion Ventures. Through these funds we invest in companies that have not been in the market for long, exposing them to a higher risk of failure. Fund investments offer opportunities, at limited risk of loss, due to the large portfolio in the fund the risk of loss is considerably lower as a direct investment would be.

An example of an investment with Motion Venture is Harbour Lab, a Greek company, which fits perfectly with the criteria we use for investment decisions. Harbour Lab is in maritime logistics, relying on digitalization, and as a platform interlinks various players in maritime logistics and addresses customer problems directly, acting as an interface between shipping companies and the Port Authority.

The core concept of such investments, through the interplay of industrial expertise and project and ven-

## Start-up – Portraits

Two start-ups that have successfully made the step into the market are Sky and Modility.

### modility

Modility describes itself as the 'booking.com' for intermodal transport, a platform bringing together supply and demand for intermodal transport. The aim is to give companies access to CO<sub>2</sub> friendly transportation as easily as possible and to make sure that the European rail infrastructure is used more effectively.

Modility is a spin-off from HHLA Next's portfolio. The eight strong team combines agility and the innovative thinking of a tech start-up with the advantages of a parent company, HHLA – Hamburger Hafen und Logistik AG, and has an extensive network of expertise and experience available to draw on. Even before modility could celebrate its first birthday in March 2022, last December it was awarded the Deutschen Exzellenz-Preis – German prize for excellence in the categories, strategy, transformation and new work.



Information at: [modility.com](https://modility.com)

### HHLA Sky

HHLA Sky is also a spin-off from the parent company HHLA, it is wholly dedicated to air space, concentrating on drone technology.

Behind the idea was an innovative idea, to face the challenge of controlling drone fleets centrally and simultaneously in various work locations worldwide. HHLA Sky developed a platform which covers the complete process from planning, through preparation, the actual flight and data supply. In the meantime the start-up has a whole system for controlling and operating and has built up a fleet of autonomous industrial drones.

With the first scalable drone control centre, more than 100 drones can be managed at the same time and remotely controlled: HHLA Sky has won the German innovation prize.



Information at: [hlla-sky.de](https://hlla-sky.de)



**Digitalization is possible at many points in the port. Start-ups are the source of many highly promising ideas**

© HHLA / Martin Eisen

ture building expertise successful ventures should be created. In addition the offer of accompanying services e.g. finance and controlling, strategic support, marketing and communication for the companies.

Even if funds, present promising investment alternatives especially to start-ups, the focus is not only on the young companies, says Simone Loder: “We concentrate not only on start-ups, but with innovation, and mature companies that have been in business longer.” Selection is made in line with established criteria and in various stages.



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Nele Martensen

“We looked at over 2000 companies and 700 of them made it into our database”

**Simone Lode, Managing Director HHLA Next**

### **OBSERVE AND RECOGNIZE INNOVATION**

„We have looked at over 2000 companies, 700 of the have made it into our database. But the perfect fit is not so easy to find. First of all it must naturally fit into the HHLA strategy. This means contribute to digitalization and sustainability. We have a strong focus on innovation at HHLA. Accordingly it must by definition be a new kind of business,” explained Simone Loder.

How much market experience do they already have? How many customers are already on board? Has it reached appropriate turnover and achieved good results? And how many financing rounds has this company behind it already? These questions form the basis for Simone Loder and her team’s selection criteria. At the same time it is always the question of an attractive promise of growth in the strategic long-term partnership for both sides.

As far as strategy goes, a top priority for investment decision-making above all is one point, the inevitable HHLA basic company strategy: earnings. HHLA Next’s task is to develop new strategic business segments for HHLA – and bind to it long-term realization of profit-making. A company is only of inter-

est when it serves a market segment that will have a high growth rate in the future. At the same time, in line with further criteria, the company should not only profit from capital but also from market access through HHLA: above all industrial expertise and customer access is meant here.

### HARD FACTS VERSUS SOFT SKILLS

“Along with the founders themselves, the company team is most important. Investment is made foremost in the team, the founders, the key staff. Then comes the business idea and all further criteria. This means, everyone one is passionate about what they are doing, shows high professionalism, know what they are talking about, and ultimately satisfy the customers. This is, of course shown by market penetration and customer acquisition,” explained Simone Lode.

This is why a table of criteria is not enough. Part of HHLA Next philosophy and of every selection process is to get to know the founders and the team in personal discussions.

Only when hard facts and soft skills have been checked, is it time for an investment decision. “When we have ticked off all the boxes, then we can move onto the in-depth evaluation, the due diligence. We screen all important sectors of the company very precisely: commercial, financial, and technical and then legal and fiscal sides, too. We check every part of the company thoroughly. When there are no reasons not to invest, we hopefully come to a positive investment decision.”

### ON THE ROAD IN EUROPE, AT HOME IN HAMBURG

Geographically HHLA is open: Hamburg is establishing itself more and more as an attractive location for start-ups – many of them with a maritime focus. Digital Hub Logistics Hamburg is a close partner of HHLA Next and provides the opportunity for start-ups to become more well-known and to build up a network. This is important as the strategy behind HHLA Next is to support the international market alongside the local one. “To improve contact to start-ups, to further our deal flow. Not only on the international stage but also of course here in Hamburg. We come from here and we are at home here,” stressed Simone Lode.

Over and above supporting existing businesses, the HHLA subsidiary has achieved a whole portfolio of successful companies established in the market offering innovative solutions for air, sea and rail. A very new project still on the starting blocks is heyport. “In the near future heyport will be in the market as an independent entity providing a platform for coordinating everything to do with a port call. That means heyport will support coordination and communication for ship calls in ports worldwide, making it attractive for terminal operators, as well as shipping companies,” explained Simone Lode. ■ Birte Hirsch



Information at:  
[hhl-next.de](https://hhl-next.de)



HHLA Next enables  
some of the group's  
own ideas to be  
implemented

# Print-outs are passé

**Hansaport is the world's most extensively automated bulk cargo terminal. As one current project shows, processes there are to be even more extensively digitalized and rendered more efficient.**

Many processes at Hansaport – such as data exchange for the production of freight documents – have already been digitalized for a long time. Yet until just recently, internal and external communication at Germany's largest handling terminal for coal, ore and building materials was a lengthy process. For instance, data on such standard processes as an order for a specific quantity on a specific train was exchanged by e-mail or telephone, reports Michael Schwarz, deputy head, operations.

One example was that data was written out or copied, with several copies being made for distribution to loading stations. This was once again entered in two systems, each involving copying and Excel lists. Transmission errors were a possibility there," says Schwarz. For instance, giving details of the wrong type can cause substantial harm for our customers. The objective here was obvious: To simplify and improve processes, data was to be entered only once in the system, and this by the person initiating the order. Finally, all those in the logistics chain entitled to

## INCREASED DATA SECURITY AND TRANSPARENCY

Processes have now been digitalized for six months. The IT solution implemented considerably minimizes the risks of transmission errors, – especially in stress situations in the control centre, among other places. "When an order is received there, we use the platform to specify the storage location," says Schwarz. And communication during loading has also become far simpler: Controllers see the real-time status in each case, so that the previous constant need to telephone is no more. At the loading stations, paper and manually conveyed instructions are no longer needed. "Data now only needs to be called up," says a most satisfied Schwarz.

The prototype, just now being exhaustively tested with our colleagues from Salzgitter to eliminate still existing defects, now indicates which materials should be loaded from which storage locations, with which equipment and on to which railcars, and when. Hansaport workers engaged in these activities were involved in the test stage that lasted several months.

Their opinions rounded off the views on the basis of which the challenge was viewed.

Already having been able to amass extensive experience with processes of change in the course of the automation of Hansaport, such staff are open-minded towards the new system. It was rapidly recognized here that adaptation of the system would reduce expenditure and eliminate errors without jeopardizing jobs.

To allow for their requirements and experience, customers were also involved at a later stage. Movement clerks are now able to feed in all relative loading data such as the time, type, quantity and weight in the course of placing their order. Hansaport then undertakes a manual check, but this too is to be digitalized in future.

The advantage for customers is that they can, at any time, scrutinize data and status and alter their order provided this is not being processed. "We provide them with a kind of live image," emphasizes Schwarz. Depending on the customer, instead of manually producing a table daily or weekly, generating and despatching a PDF based on this, they can now retrieve these details around the clock.

**The IT solution implemented minimizes the risk of errors in transmission**



do so can use this database externally and internally. "We therefore opted for an online portal on our website," remembers Schwarz. Initial discussions took place at the end of 2019, then a four-strong project team from an IT provider plus two Hansaport staff went to work. Apart from tackling technical IT questions, the main challenge was: Who really requires which data? We had naturally tried in advance to illustrate the process chain, but a great deal is only clarified in the course of such a project, or ideas emerge for simplified process flows, explains this operations expert.

## FURTHER DIGITALIZATION PROJECTS PLANNED

The development team is satisfied with what has been achieved so far: “We are well on the way and the project has almost been completed.” In spring 2023 the idea is to develop a similar system for inland waterway vessels, using the new rail module as the basis. The first steps towards that have already been taken. What remains true at Hansaport is that ‘There’s no such thing as a completed system. Ours here are continually being further developed.’”

A further example of this is the tie-up between Hansaport systems and DB – German Rail’s train localization system. Yet the aim is to make the facility even more efficient so as to further optimize handling processes. “This project fits into the digi-

talization and development activities of Salzgitter, our parent company,” adds Schwarz. “On all developments, our principal shareholder’s fresh vision and strategy strongly motivates us to continue working alongside our customers and partners on further development of our systems and services going forward.”

Work is therefore already being done today on the target definition for the next system adjustments. Schwarz comments: “In future our customers should be able to have our berth utilization data flow automatically into their systems through an interface, also to electronically nominate a seagoing vessel, for example. Therefore, we are approaching our uppermost goal of achieving transparency across the entire supply chain.” ■ Claudia Behrend (cb)



Digital solutions also assist loading and discharge in the Port of Hamburg





# A tale of continual improvement

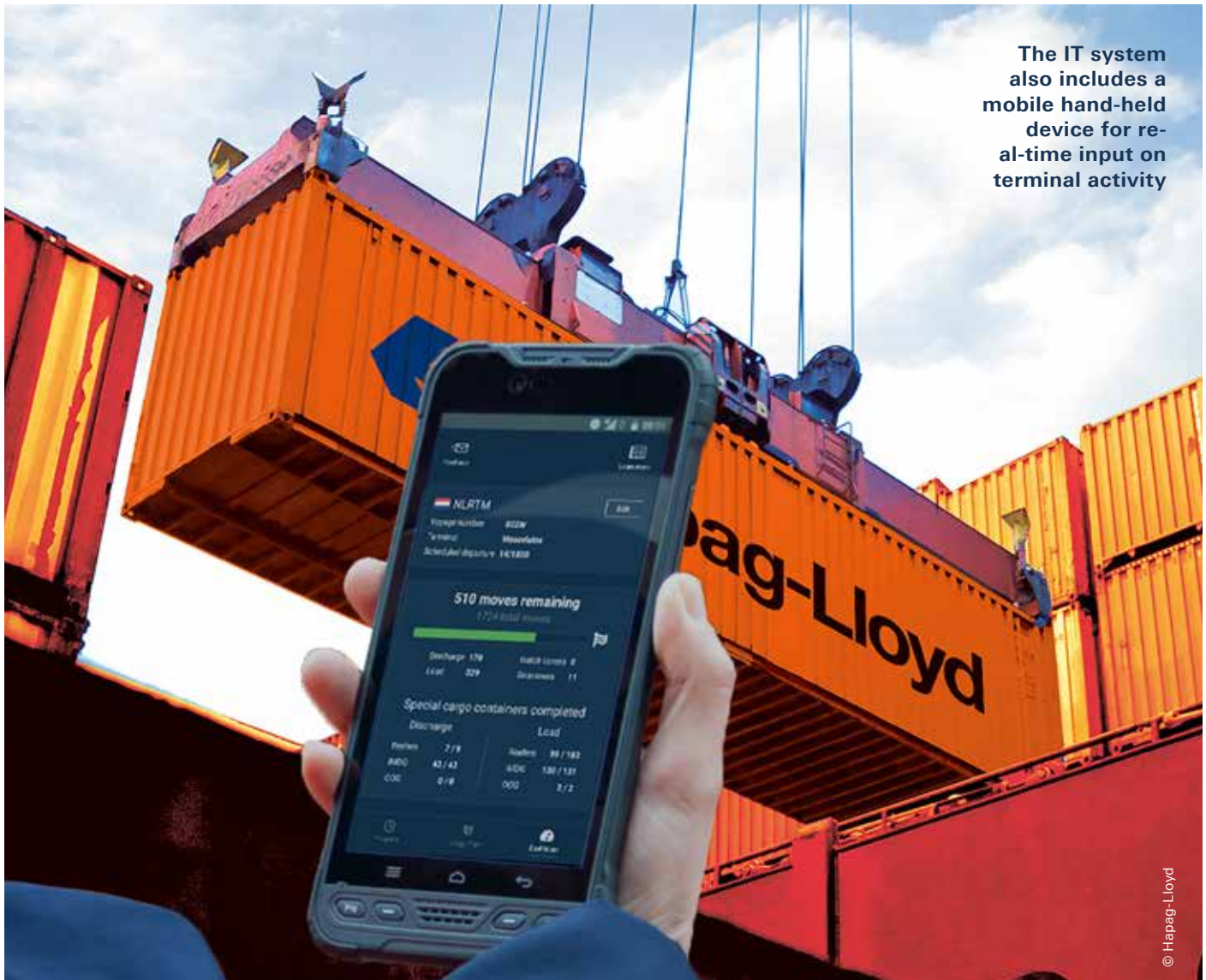
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With freight monitoring, smart stowage planning, IT-backed screening of hazardous cargo, and immediate discharge in port, Hapag-Lloyd is demonstrating just how much potential lies in still closer coordination, with the aid of digitalization, between terminals in the Port of Hamburg and shipping companies.

Digitalizing supervision of cargo handling processes is one obvious option. Smooth interaction between those involved is in the interests of all. For a simple reason, logbooks were still kept on paper until the end of 2021 despite their vulnerability to error: The processes involved are so complex that despite the availability of the technology for a long time, some time elapsed before these had been harmonized and digitalized between approximately five to six partners.

tages are a reduction in port lay times, an improvement in the reliability of schedules, and optimization of both shipboard handling processes and planning for the crew.

The IT system consists of a mobile hand-held device for input of terminal activity in real time and a web-based dashboard for analyzing and checking data. These are synchronized with a web-server and



**The IT system also includes a mobile hand-held device for real-time input on terminal activity**

© Hapag-Lloyd

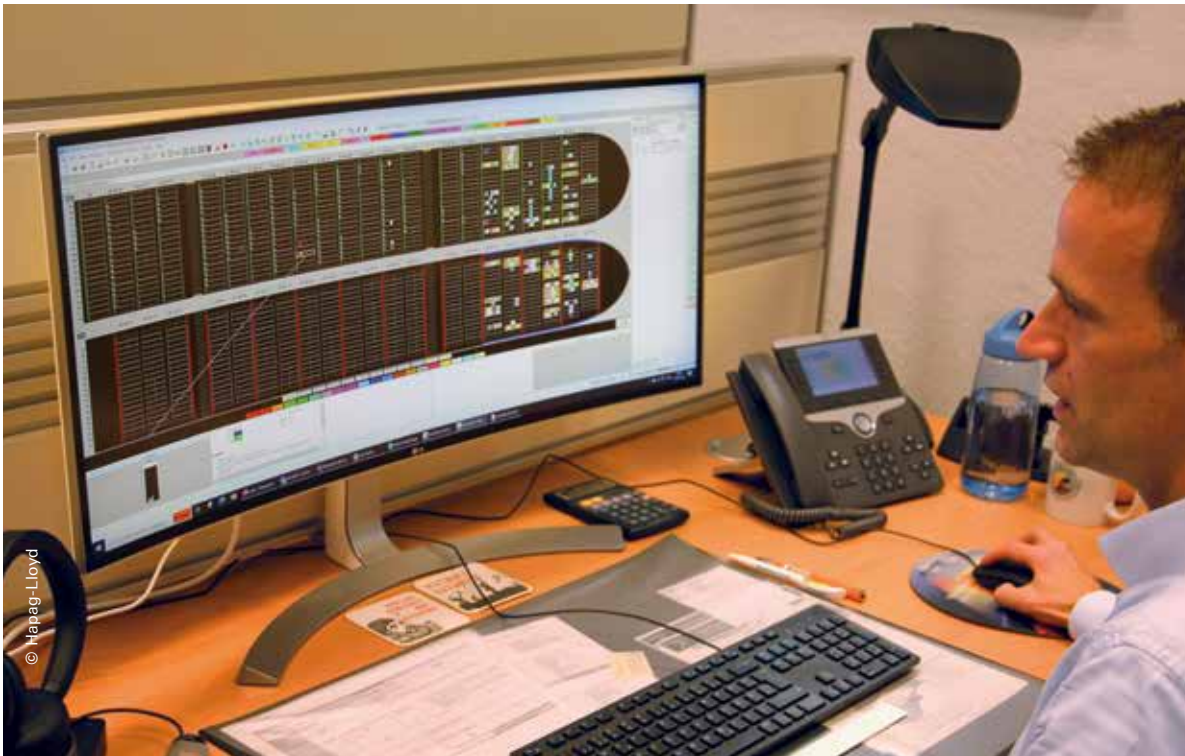
After the system had already been tested on the 'Frankfurt Express' and four additional ships since the end of 2020, from August 2022 it was gradually introduced in the entire fleet. With the aid of 'CargoMate', cargo handling steps on board were digitalized. 'This enabled us to monitor in real time loading and discharge activities by all others involved and calculate when the ship would be ready,' explains Dr. Ralf Belusa, Managing Director Digital Business & Transformation for Hapag-Lloyd. 'We are therefore no longer dependent on data from the terminal, which can on occasion arrive after some delay.' Additional advan-

immediately visible on the web dashboard. This is used by stowage planners at head office, but also at the local port office, or PTO – Plant and Terminal Operations. The browser-based dashboard visualises the data gathered by the mobile device and is also accessible to computers connected to the internet, such as those of the Captain, First Officer, and shore departments responsible for port operations.

**STOWAGE PLANNING WITH AI BACKING**

Digitalization has also constantly become a stronger feature of stowage planning. 'Otherwise, it would no





This stowage planner for Hapag-Lloyd works with AI and machine learning

longer be possible nowadays to take into account the numerous different parameters within an appropriate time frame," reports Belusa. "And otherwise, a sepa-

rate individual would need to take responsibility for each and every factor, for example weight, load and discharge ports, container type, special cargo in-



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cluding hazardous material, ballast planning, stability, empty containers, vacant spaces and special customer requirements.” A stowage plan, moreover, is not static but requires continuous adjustment, for instance when a container is not delivered punctually, or port rotation is changed, for example because a call is cancelled on account of a bottleneck or a strike.

Hapag-Lloyd has relied since 2019 on ‘Sonata’ stowage plan optimization software programmed by Solverminds, providing essential support for the Indian software company in developing the basic functionalities. “The tool uses AI and machine learning, to make one or several proposals in real time to our stowage planners on how the containers should be distributed on the vessel,” explains Belusa. This is meanwhile installed on almost half of Hapag-Lloyd’s current 253 containerships, also allowing for simulation on several vessels.

At the heart of the software are optimization algorithms that considerably reduce planning time for mega-vessels with a capacity of over 20,000 TEU – standard containers – and calling at several ports. Instead of the 16 hours previously, this takes no more than 40 minutes, while a plan for a single port can be produced in less than quarter of an hour. The tool not only relieves the stowage planner of a mass of routine work, leaving him more time for any demanding issues that arise, but it also leads to more rapid clearance of ships and hence to reduced costs. “Yet it’s not fully automatic: That will be in 30 to 50 years at the earliest,” admits Belusa.

#### **JIT JUST-IN-TIME OPTIMIZATION INITIATIVE**

The aim of optimizing ship calls in port is also served by JIT, the Just-in-Time optimization initiative. Hapag-Lloyd is one of the first shipping companies to be involved in this, since the beginning of 2022. JIT sets out to improve and standardize communication

Hapag-Lloyd aims to contribute to rapid unloading with the aid of digital applications



© Hapag-Lloyd

among service providers – for example, between the shipping company, terminal, pilots, port authorities, tugboats and line runners.

“Our goal is ‘Berthing on Arrival’, or immediate unloading without waiting time in the port, so that the berth will be free on the vessel’s arrival,” explains Belusa. “By knowing the berth situation in good time, we can adjust a vessel’s speed accordingly.” Beforehand, JIT expects to see full communication between the shipping company and the terminal 48 hours before the planned arrival – or a still more intensive dialogue 24 hours in advance. With every change in schedule, namely, the time-frame for the arrival needs to be coordinated again with the terminal.

Such communication is to be operated in future through a digital platform run by Portchain und used jointly by the shipping company and the terminal. New communication standards developed by the

DCSA – Digital Container Shipping Association – are to be used. Hapag-Lloyd has been actively involved in developing these, and their predecessors have been used in several ports, amongst them Tangier in Morocco, and Hamburg.

“In combination with Cargomate, we are linked with JIT by more and more data threads” says a very satisfied Belusa. In addition, this involves development of a certain own momentum for all those forming part of the data chain, for example when data on the latest feasible delivery of a container proves transparent and valid. Belusa is also convinced that a link with a slot booking procedure will be a good next step: “We shall then be linking our own system with the ship’s management and the optimization system for the terminals. That way, we can optimize more holistically and in a more integrated manner. That is also important, since more and more managed services exist that influence each other.” ■ cb

### Screening hazardous cargo

Estimates put the proportion of hazardous cargo on board at about seven percent. According to CINS – or the Cargo Incident Notification System, with 15 members in addition to Hapag-Lloyd, around 0.059 percent of all containers are inaccurately or inadequately declared. This can occur deliberately, when synonyms or trade names are given, or on account of faulty processes. This is not just a problem on board the ships, but also during handling in ports. Hazardous cargo, for example, must be notified at latest by twelve hours prior to the call at a port, and later at the terminal, put into separate interim storage.

One means of further minimizing this risk is precise screening of cargo in order to identify even more hazardous material. Hapag-Lloyd relies here on Haz-Check Detects from non-profit-making Exis Technologies. A database analyses, determines and updates terms and keywords for hazardous cargo, and among other things is maintained by the participants themselves. The database is automated via an interface, with the software then displaying any words in the description of the goods that are associated with hazardous material. All potential matches are then manually checked, and if necessary corrected, by the shipping companies.



Information at: [hapag-lloyd.com](https://www.hapag-lloyd.com)

# Shipboard transshipment in port – the right approach

**With a new service for shipboard transshipment in port, available freight capacity on feeder vessels is being cleverly exploited to both relieve Hamburg’s road infrastructure and make movements more sustainable. The focus is on port tours for containers that arrive by ship at one terminal in Hamburg and will be reloaded at another terminal.**

This joint project triggered by the Danish shipping company Unifeeder with the Hamburg software house DAKOSY and DIHLA DAKOSY – DIHLA being the Hamburg Liner Agents’ joint interest group, shows what can be achieved through practical cooperation in the Port of Hamburg. The newly created digital application can be used by all feeder carriers that want to use their spare slot capacity for port tours.



**Florian Plein,**  
Area Director West and Central Europe at Unifeeder

Since 1 November 2022, containers that would normally be transported daily by truck between the Hamburg terminals can be transferred by feederships within the port. “Every day we call at all of the usual Hamburg container terminals and we always have sufficient spare capacity to carry additional containers within the port,” underlines Florian Plein, Unifeeder’s Area Director West and Central Europe. With up to 85 ter-

minal calls per week in Hamburg, the biggest feeder carrier in Northern Europe has a considerable quantity of free slots available.

These should be specifically used for transshipment tours, i.e. transshipping containers between ocean-going vessels and feederships that will not be reloaded at the same terminal. Currently, the containers in question are moved by truck around the port. The environment-friendly alternative is of special significance for Pein because of the sheer lack of qualified/experienced truck drivers. “We are suffering from the effects of a long-term downturn in the number of newcomers to truck driving. This has led to a considerable lack of transshipment capacity and long waiting times in the Port of Hamburg,” stresses Pein.

The newly inaugurated service comprises container transshipment by feedership between HHLA’s Terminals: CTA, CTT and CTB, as well as Eurogate and shortly Süd-West Terminal, too. With this approach, in the medium-term, Unifeeder is striving to switch 50% of its transshipment tours from truck to feedership. DIHLA managing director Alexander Geisler is delighted: “By



**Feeders aiming to participate more in port transshipments**

© Unifeeder

exploiting shipboard transshipment tours, every year thousands of containers can be taken off the road system. Every container that we move shipboard means cutting down on CO2."

To get the new service off the ground, firstly it was essential to create a digital Customs handling procedure. The necessary pre-financing was provided by DIHLA. Geisler explains their motivation: "Using the digital infrastructure, the way is clear to relieve the road infrastructure in the port and, taking available ship capacity into account, to be environment-friendlier and provide trend-setting means of transport."

The digital basis is the Port Community System operated by DAKOSY, into which the new model has been integrated. DAKOSY's project manager Franz Schwanke explains the application: "Normally, an export Customs handling process must be completed as soon as a container is loaded on a feedership. Together with the commercial partners, and in agreement with German Customs, we have now created an integration function on the import platform IMP and the export platform EMP ensuring that the transshipment tours conform transparently to Customs regulations."

In the process, what is now known as a transshipment manifest has been introduced. With this, the feeder carrier signalizes via EDI interface or the IMP application that they wish to carry out a transshipment by feedership. This triggers an automatic change of custodian instead of an export process. With the manifest, the starting terminal is also informed of the planned transshipment and thereafter provided with status reports.

This means that the terminal can steer its internal processes optimally.

Sönke Witt, head of HHLA's business customer communication, has cooperated in the project on the terminal operator side. He confirms: "By taking the opportunity to have terminal transshipments by feedership from now on, a pooling of volume for ship calls will be achieved. This will bring relief for the whole port system, benefitting our customers, our terminals and infrastructure." ■ DAKOSY/red

**Franz Schwanke,**  
DAKOSY Project  
Manager



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# Reliable data at any time

**Coffee bean specialist NKG Kala uses a digital yard manager. Radio and manually completed lists belong to the past.**

For some time NKG Kala Hamburg, a company in the Neumann Coffee Group, has been using Yard-Manager, a software program for professional yard logistics from MID – Möller industrial services in Hamburg. The aim behind introduction of Yard-Manager was to become constantly aware of the whereabouts of each container on site, and who had made each process move and when. Up to 1,000 TEU – load units – are held in the NKG Kala yard continuously. In addition, up to 300 container movements occur there daily. The company trades as a service provider in the worldwide coffee bean trade, annually handling around 400,000 tons of raw beans.

“The business has grown massively down the years and our volume has increased steeply. It became obvious to us that we needed to digitalize processes,” remembers Christian Timm, Deputy CEO of the raw coffee specialists. The company started out with an introductory version of the software, joining MID programmers in gradually adapting this to NKG Kala requirements. “We now have reliable data and a complete history for every individual container,” adds Tobias Kratzmann, responsible at NKG Kala for IT projects.




Data available: Container tracking is feasible at any time via the logistics system

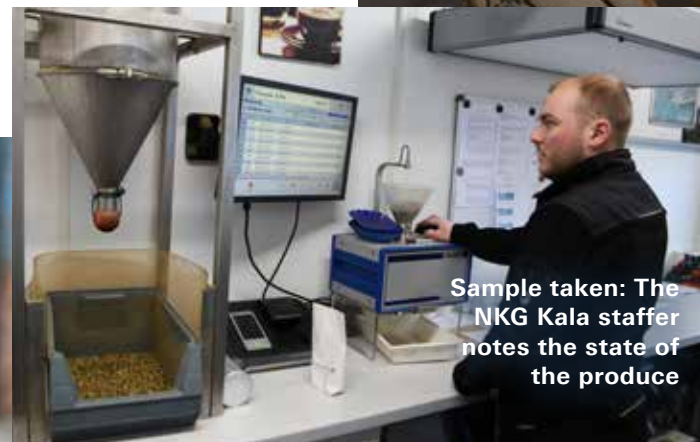
The basic version of YardManager offered NKG Kala an overview of the yard and its slots, which are programmed in. This enabled the company to allocate available slots to all containers on arrival. Day and night, yard drivers on duty automatically receive tour instructions on tablets installed in their vehicles. In three shifts, from Monday to Friday, a team of drivers is on the move around the site aboard such special vehicles as reach-stackers and tractors, fetching containers from the slots for unloading, and returning them. Once an order has been met, the system automatically generates an e-mail to the forwarders. They receive the message that the empty box can be collected.

simple to operate and self-explanatory. Depending on shift and volume, on average 15 people currently work simultaneously with the application.

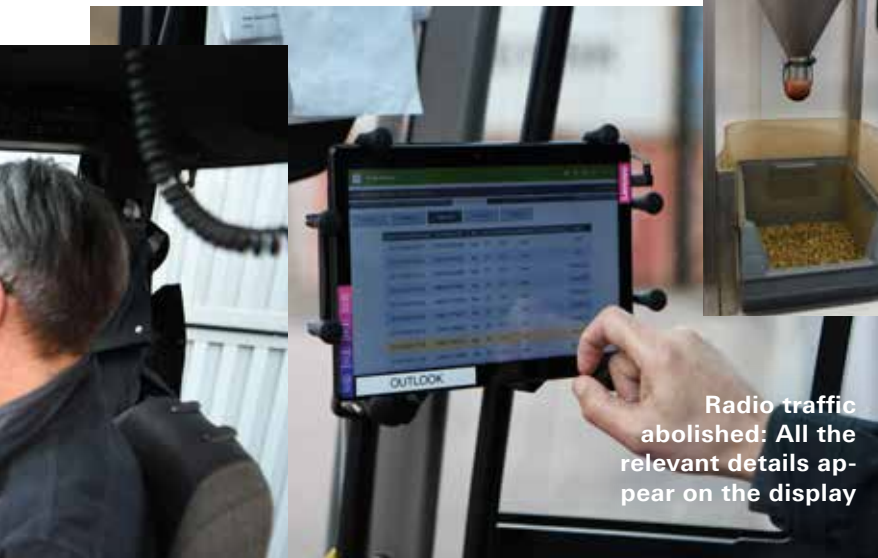
Before coffee is stored, the containers are given an arrival inspection. Every load unit delivered by forwarders



**Coffee from Brazil:**  
NKG Kala annually handles  
400,000 tons of green  
beans in Hamburg



**Sample taken:** The NKG Kala staffer notes the state of the produce



**Radio traffic abolished:** All the relevant details appear on the display

**Simple to use:** Yard drivers receive orders via the tablet mounted in the vehicle

NKG Kala's yard is divided into various areas. A silo building houses three reception lines that convey the loose produce into various areas. In addition, the company runs a conventional 8,000-square-metre warehouse, in which it stocks and handles coffee in bags. There are seven loading gates. Staff here prepare containers for export. In accordance with customer instructions, the beans are cleaned, weighed, mixed or specially processed, stored and then re-loaded into trucks or containers.

All tours ordered to the various loading and unloading points are displayed by YardManager. An overview shows which orders are active. Every driver in the yard knows at all times what needs to be done. "Everything runs via a program and no longer by radio, telephone or notes. We are relieving our staff and save a lot of time," says Kratzmann appreciatively. According to Kratzmann, YardManager is

is first brought to the sampling ramp. The staffer responsible there initially examines the container for signs of external damage, checks the produce, records its condition, and takes a sample. If everything is in order and the customer has released the container, yard drivers are deployed.

All containers are listed by YardManager under consignment numbers. Drivers can collect the data relevant for them and execute the order. If a container stands at the place earmarked for it, the process is completed for the moment and it disappears from the yard driver's display. Kratzmann: "Previously, countless manually completed lists and numerous document folders were in play – that was anything but convenient. None of us can any longer imagine how this functioned without the tool."

Via interfaces, YardManager also communicates with NKG Kala's own logistics system that picks out the data needed for container tracking, for example. Forwarders employed for many years are also linked to YardManager via the logistics system. The coffee bean specialist pays a monthly lump sum for using it. Should a tablet fail to function, then MID immediately ensures its replacement. ■ (njo)

Hamburg creates a special hub for young entrepreneurs



Lively throng at the opening of Digital Hub Logistics



© HHM / Hasskamp





## One eco-system for digital innovation

**Digital Hub Logistics brings long-established companies and innovative start-ups together to boost digitalization of the logistics sector. Digital Hub's recent move offers proof of this think tank's success.**

Hamburg is a world-class logistics centre. Whether by water, rail or road, the trade flows to be mastered are gigantic and involve enormous logistics effort. The launch of Digital Hub Logistics in 2017 involved creation of a network designed to boost modernization of the sector. The hub located in the heart of Hamburg's Warehouse City networks companies, investors, start-ups, researchers and academics in one place. Today, this is one of the largest centres for logistics alliances in Germany and Europe.

### **AN ALL-GERMANY INITIATIVE**

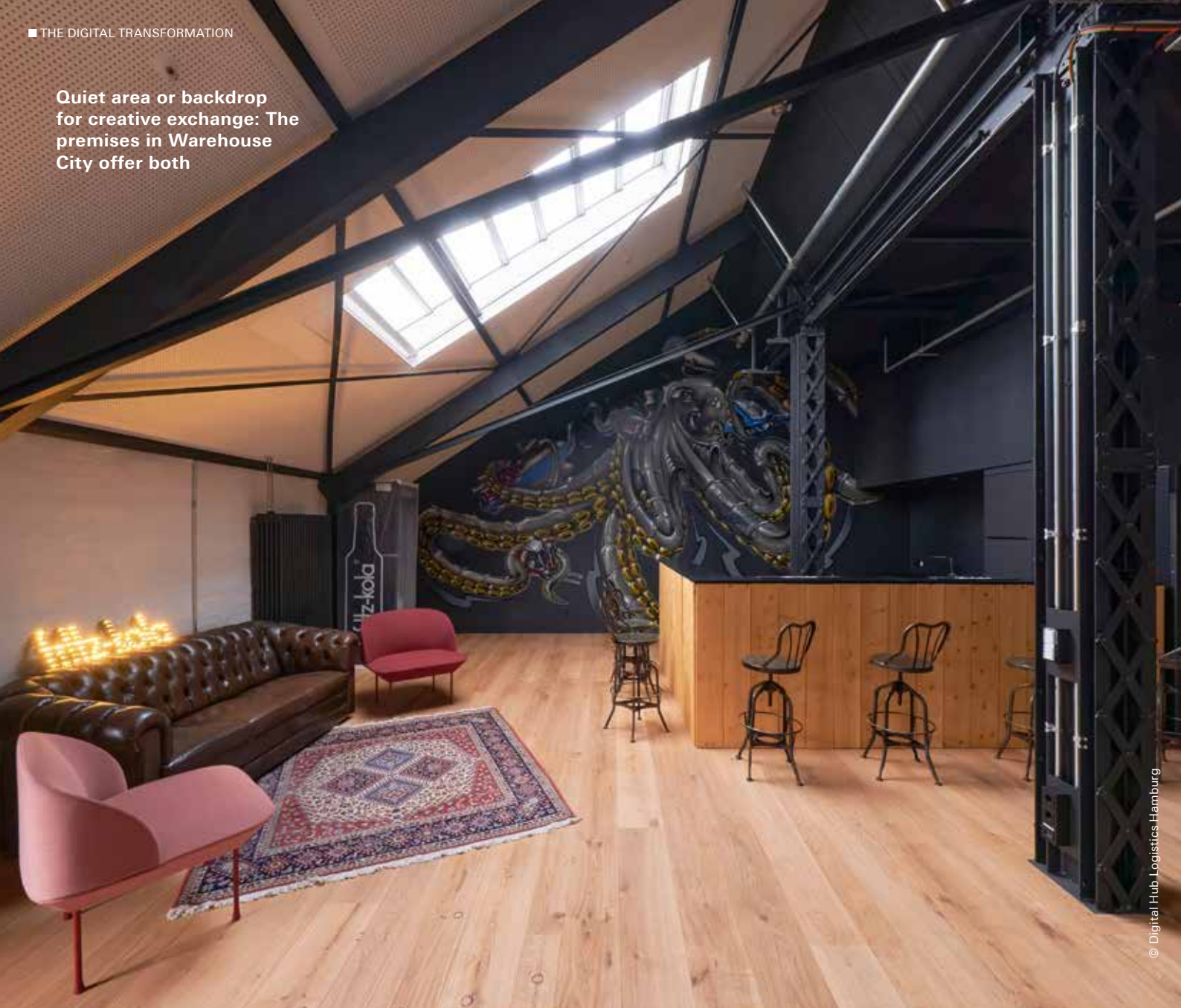
Digital Hub Logistics is run by Hamburg's Ministry of Economics & Innovation and Hamburg Logistics Ini-

tiative. It is one of twelve hubs and forms part of the countrywide Digital Hub Initiative. Along with Bitkom, this was launched by the Federal Ministry of Economics and Climate Protection in 2017. Its objective was to promote digitalization in those branches of commerce and industry relevant for Germany.

### **INNOVATION MADE IN HAMBURG**

"Anybody who has visions should go to the doctor," urged former Federal Chancellor Helmut Schmidt. Johannes Berg has another idea there. Berg is CEO of Digital Hub Logistics in Hamburg – and anybody with visions has come to just the right place with him. One thing, namely is of special importance for

Quiet area or backdrop for creative exchange: The premises in Warehouse City offer both



© Digital Hub Logistics Hamburg

him: “To bring together people for whom boldness outweighs anxiety, with more pleasure in winning than fear of losing.” The hub opened with ten start-ups; today there are 85. Together, they represent a vast spectrum of extremely varied topics such as the block chain, virtual reality, decarbonization and artificial intelligence.

### MARITIME INDUSTRY 2.0

Digital Hub also offers the maritime industry fresh ideas. BOXXPORT’s young entrepreneurs, for instance, optimize selling, managing and operating containers by assembling all the essential data on a single platform.

Hasytec presents an innovative ultrasonic technology for merchant shipping that prevents biofilms and deposits on all liquid-carrying surfaces. Their technology not only banishes considerable quantities of CO<sub>2</sub> and heavy metals, but also prevents the proliferation of invasive substances in alien ecological systems. In 2022 the company was nominated for the German Environment Prize.

The marine technology start-up NautilusLog set itself the task of replacing all paperwork in the maritime industry. Its platform functions for shipping as a digital logbook. The software tracks vessels automatically, generating events and tasks. Before an emission control area is reached, for example, it issues a reminder of the need to change fuel type.

Decarbonization of the industry is the goal being pursued by the Berlin-based company zero44. Launched in May 2022, this start-up has developed a CO<sub>2</sub>-management software for merchant ships that focusses on the requirements of the new CII and the EU’s ETS regulations. zero44’s digital solution provides shipping companies with control of their ships’ emissions plus firm guidance on decision making in their commercial planning. In the light of the new regulations, for example, they can reach decisions that make most sense in terms of costs and revenue. In November, its MPC Container Ships enabled zero44 to gain one of the world’s largest containership owners as a client. From now onwards, this will be using zero44’s CO<sub>2</sub>-management solution for its entire fleet.



© Digital Hub Logistics Hamburg

**Digital Hub Logistics offers another venue for events**

Digital Hub Logistics enables its 85 start-ups to benefit from assistance from 24 established companies in extremely varied areas of logistics. Among these are Nagel Group, Volkswagen Group Logistics, HHLA Next, Hamburg Port Authority, DHL and Dakosy. Digital Hub provides the opportunity for them to prepare their processes and business models for the future.

### A CENTRE FOR NETWORKING

Within the hub, participants are guaranteed the greatest possible degree of freedom and flexibility. CEO Berg's motto runs: "The companies involved occupy the driving seat in developing innovation – Digital Hub Logistics provides the vehicle." 'The vehicles' consists of the formats that promote exchange and collaboration, as well as supplying the scope for trying out new ideas. Among these, for instance, are fortnightly hub lunches, workshops, competitions and the event format 'cornering' that facilitates sharing of successes among these young entrepreneurs and the discovery of joint solutions for problems.

### A LIGHTHOUSE FOR LOGISTICS

"Digital Hub Logistics Hamburg is a breeding ground for clever ideas and smart innovations for the transport industry of the future," says Dr. Peter

Tschentscher, Hamburg's First Mayor. With its can-do spirit, Digital Hub Logistics has created an incredibly strong association of entrepreneurs for the digitalization of the logistics sector. For the future, the ten-strong team is determined to beef up cooperation with the other hubs in Germany and to build up an international network pursuing state-of-the-art logistics. Anybody thinking about start-ups and innovation in Hamburg, certainly needs to bear Digital Hub Logistics in mind. ■ Saskia Hasskamp (sh)

### Hubgrade – more space for fresh ideas

Digital Hub Logistics reached a milestone in its still brief history on 8 November 2022. The move to Sandtorkai 32 enlarged this hub from 1,800 to 3,200 square metres. Over five floors in Hamburg's Warehouse City, members will in future have available extended workshop space, a relaxation facility, excellent technical facilities, and a generous area for events.



Information at:  
[digitalhublogistics.hamburg](https://digitalhublogistics.hamburg)

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# PETER PICKHUBEN'S PINBOARD



## By the way,

... you can also find my favourite port on social media. Take a look:

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## Increased resilience for supply chains

Digitalization and the related AI – Artificial Intelligence ensure increased stability and reliability in supply chains. In many areas of logistics, they enable forecasts to be made that provide support for timely reaction to occurrences. Among those explaining how this works are Evelyn Eggers, Head of Business Development for DAKOSY, HHLA Sky CEO Matthias Gronstedt and Tino Krüger-Basjmeleh, Senior Robotics Expert, KION Group. Around 250 participants in person and online listened to presentations at the Third Future Conference for Industry, Logistics and Ports under the heading "AI – North German Base for Logistics Innovation and reliable Energy Supply with the aid of Digitalization and Artificial Intelligence". This year no less than 13 organizers ensured the success of the event: ARIC, Digital Hub Logistics Hamburg, egw:wirtschaftsförderung, Port of Hamburg Marketing, Hamburg Invest, Hamburg Port Authority, Hamburg Chamber of Commerce, Hansestadt Stade, IFB Hamburg, IVH, KPMG, Stadt Brunsbüttel and UMCO. The moderators for the event were Marina Tcharnetsky, Chief Business Development Officer for ARIC and Ulrich Balke, Director Consulting for KPMG. For a recording of the conference, those interested should click on: <https://www.hafen-hamburg.de/de/zukunftskonferenz> (red)

## Pioneers with innovative sensors

HPA – Hamburg Port Authority is opting for state-of-the-art sensors for its predictive maintenance management. HPA has already installed 66 acceleration and temperature sensors in several streets in the Veddel area. Along with asphalt temperature, these measure pressure and the vibrations caused by axle loads, speed or braking/acceleration forces. On the basis of these, HPA measures the current load on the road and its load-bearing capacity. Such data permits a calculation of the remaining working life of the road, and improved maintenance management. The sensors' potential goes even further. In future they can be used for production of a traffic model to optimize traffic flow. (sh)



© HHM / Hasskamp

## Virtual training worlds for the port

The PortSkills 4.0 project aims to demonstrate which skills and qualification competencies will be essential for the port work of the future. A digital test and training centre – or education hub – is researching new development methods for the forthcoming changes. Hamburg start-up PatientZero Games is developing the required training software. Such current technologies as virtual & augmented reality, or multi-user-training, were used for training and further education. These allow course content to be presented realistically, immersively and interactively. Rare and otherwise difficult to impart situations can be tried out in virtual training worlds. In addition, future duties and technologies can be displayed, e.g., remote control of container gantry cranes and the introduction of drones in port areas. The objective is to create a 3D twin of a port in which numerous staff can train together in cooperative case studies on coping with the new technologies and the required skills.

This research project is being implemented by HHLA – Hamburger Hafen and Logistik AG, BLG Logistics Group, the ma-co maritimes kompetenzentrum and PatientZero Games, along with non-profit partners ver.di and ZDS – Federation of German Seaport Enterprises. (sh)



## Start-up of the year

Calls for freight transport tenders are mostly manual, costly and labour-intensive. SHIPSTA has set out to change this. This start-up based in Luxembourg has developed a digital platform enabling companies to call wholly online for tenders for their shipments. One unique feature is the digitalization of the complex rate management process and of rate cards. Three years after being launched in 2019, SHIPSTA manages all freight acquisition processes for over 100 clients worldwide. In October 2022 the start-up was voted 'Startup of the Year' at the Logistics Summit in Hamburg, one of Europe's leading events for logistics digitalization and innovation. (sh)

# Inga Gurries heads market development in Asia

**Inga Gurries coordinates the HHM Representative Office in China and in India together with Sameeha Pradeep Sule as the new Hamburg Representative in Mumbai.**

The Asia markets are traditionally very strongly connected to The Port of Hamburg. China has been a leader in container handling in the Hanseatic city for many years. Port of Hamburg Marketing (HHM) puts great value on intensive, high-quality market support and on developing Asian markets.

Mathias Schulz, who has taken over the division management for communication, has handed this very important task to Inga Gurries. She is now Head of Market Development for Asia and coordinates the Port of Hamburg representative Offices in Shanghai, Hong-Kong and Mumbai.

She studied sinology and has been at Port of Hamburg Marketing since 2018, and already looks after these markets. During her studies she completed semesters in Hangzhou and Shanghai. In addition Inga Gurries worked for one year in the Hamburg Liaison Office China in

Shanghai. Inga Gurries will continue to work for the Project Department at Port of Hamburg Marketing.

In the future Sameeha Pradeep Sule, the Hamburg Representative in Mumbai will work at her side. Sameeha Pradeep Sule has advised Hamburg companies and institutions on questions relating to India for the last two years. She takes over the position from Lea Miram, who after four years working in India will return to Germany. ■ (red)



Lea Miram hands over as Mumbai-based Representative to Sameeha Pradeep Sule



Inga Gurries took over as Head of Market Development, Asia, in October

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