THE OFFICIAL MAGAZINE OF THE PORT OF HAMBURG

MARCH | 2021

## PORT OF HAMBURG MAGAZINE

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BY 2050 EUROPE SHOULD BE THE FIRST CLIMATE NEUTRAL CONTINENT. THE TRANSPORT AND LOGISTICS SECTOR HAS A KEY ROLE TO PLAY HERE, SINCE IT IS RESPONSIBLE FOR AROUND A QUARTER OF ALL EU GREENHOUSE GAS EMISSIONS.

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## Dear Readers,

A whole year has passed since the Corona Pandemic started to preoccupy the entire world. Port management and industry had to come to terms amazingly quickly with new challenges, rethinking strategies and adapting work processes. As a result, major issues such as the environment, climate change and sustainability slipped into the background. Coming into 2021 with new hope, it is important for us to put these topics back at the top of the list, once again raising awareness for Green Logistics. Climate change is not going to wait for us.

Last year, with the European Commission's resolution on the 'European Green Deal', the bar has been set very high: By 2050 Europe should be the first climate neutral continent. The transport and logistics sector has a key role to play here, since it is responsible for around a quarter of all EU greenhouse gas emissions. To achieve absolute climate neutrality, there is still plenty to do. Our members and numerous other companies along the transport chain are therefore working intensively on environment-friendly, resource-conserving, sustainable solutions that we want to show you in this magazine.

Alternative fuels, such as hydrogen and LNG are currently the talk of industry. In 2020, with the 'CMA CGM Jacques Saadé', the first containership worldwide powered by liquid natural gas made its maiden call in Hamburg. Apart from the mega-containership, other climate-friendly vessels are being developed, refitted or constructed, such as 'Greenferry I', 'Elektra' and all of the craft in the Hamburg fleet. However, it is not only in shipping that the future is already here today. Where hydrogen is concerned, Hamburg wants to be at the cutting edge, pushing ahead for the establishment of a comprehensive value creation chain, within a North German hydrogen strategy.

A further important step in the direction of climate neutrality is the transfer of freight from road to rail. As Europe's biggest rail port, Hamburg is ideally positioned and has been able to continually increase the share of rail container transport in the modal split in recent years. How rail services can become more climate-friendly is demonstrated by both the HHLA subsidiary Metrans and TFG Transfracht in this edition of the Port of Hamburg Magazine.

Wishing you an enjoyable read,

Stay safe!

Yours,

Ingo Egloff and Axel Mattern Joint CEOs Port of Hamburg Marketing

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Mehr LEISTUNG: Neuer KRAN im Elbehafen Brunsbüttel!



### Ein starker Verbund von 17 Hafen- und Logistikstandorten in Norddeutschland & Skandinavien



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## Climate-Neutral Container Handling

Electrification and automation are the key to the sustained success of HHLA Container Terminal Altenwerder in Hamburg, the world's first climate-neutral container handling facility.

For many years, Hamburger Hafen und Logistik AG – HHLA has been implementing measures to ensure commercially efficient and ecologically sustainable container handling. As one example, the self-imposed target of reducing CO<sub>2</sub> emissions per container han-

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dled by 30 percent by 2020 was met early, in 2018. HHLA has now set itself fresh targets. The European logistics group is working towards reducing absolute  $CO_2$  emissions by half between 2018 and 2030. By 2040 the entire HHLA group should be climate-neutral.

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#### TECHNOLOGICAL EXCELLENCE CREATING CLIMATE-NEUTRAL CONCERN

Against this background, HHLA sees innovations and technological excellence as the main key for developing sustained solutions, and an ability to operate ecologically and trade successfully. One essential module in this strategy is HHLA Container Terminal Altenwerder - CTA. This is a model demonstration of how innovation and automation achieve climate- neutral container handling. Certification of the hitherto one and only climate-neutral container terminal was provided by TÜV NORD CERT in 2019. The facility on the Süderelbe in Hamburg is one of the world's most technologically modern and efficient container terminals and has been constantly upgraded ever since entering service in 2002. CTA meanwhile operates very largely on green electricity. Any terminal processes that still cause CO, emissions will be successively converted to operation by electricity - or the conversion will be trialled.

#### CONVERSION OF AGVS TO LITHIUM-ION BATTERY-POWERED OPERATION

Waterside handling with 14 container gantry cranes and block storage has been electrified and is powered 100 percent by green current. Some 100 automated guided vehicles – AGVs deployed are currently being converted to lithium-ion battery operation. 65 percent of the AGVs are already electric-powered and consuming green electricity. On completion of the measure, these environment-friendly vehicles will be able to charge autonomously and automatically at 18 points.

To close the gap to full-scale electrification, for landside handling, trials are currently under way of prototype battery-operated tractors for container transport between storage blocks and the rail terminal. Likewise, at the rail terminal, with four rail gantry cranes and nine parallel tracks the largest of its kind in Germany, the aim is to use green electricity exclusively. Even the checkmobiles used by staff to move around the terminal are climate-neutral E-cars.

#### **COMPENSATION FOR UNAVOIDABLE EMISSIONS**

HHLA currently compensates for any still occurring CO<sub>2</sub> emissions through Emission Reduction Certificates. These are in support of three climate-friendly projects certified under the highest, Gold Standard of Voluntary Emission Reduction - VER: Wind power units in India, low-friction antifouling coatings for ships' hulls and re-afforestation of rain forest in Panama. This year, CTA's CO, footprint will once again be checked by TÜV NORD. With electrification of terminals making further headway, the need for compensation will then be reduced. HHLA/Red





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METRANS makes a significant contribution to climate protection by transferring transports from road to rail.

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## "With HHLA Pure we want to strengthen our impact to positively influence the climate."

#### Interview with Robert Groiss, Business Development Manager, METRANS

Robert Groiss, you are Business Development Manager for HHLA's METRANS subsidiary, a market leader for container services in seaport-hinterland traffic with Central, Eastern and Southern Europe. Which have been the most significant developments that you have been able to pursue at HHLA's rail subsidiary in recent years?

As Business Development Manager for METRANS, I am responsible for further developing this HHLA subsidiary's business model. Along with many other exciting projects, I have primarily been involved in developing and introducing HHLA Pure. This product enables climate-neutral container shipments for our customers.

#### What is HHLA subsidiary METRANS's aim in introducing HHLA Pure?

For METRANS, its core task is to operate container transport services from seaports to the hinterland and vice versa. In doing so, METRANS transfers container shipments from road to rail and makes a significant contribution to climate protection.

With HHLA Pure, we want to further strengthen our clout for positively influencing the climate, and to reduce transport-related CO<sub>2</sub> emissions by facilitating climate-friendly shipments for our clients. HHLA Pure is annually audited by TÜV Nord, and the climate neutrality of its container services confirmed.

### How exactly does HHLA Pure function and what makes its product so climate-friendly?

METRANS already uses energy-efficient E-locomotives and lightweight  $CO_2$ -optimized flat waggons that enable us to shift a larger number of containers with a train of the same length. This reduces energy consumption. 'Whispering' disc brakes also cut noise emissions.

HHLA Pure compensates all unavoidable  $\mathrm{CO}_{\rm 2}$  emissions with Emission Reduction Certificates.

### How far are the railcars $CO_2$ optimized, can you put that in figures?

The lightweight flat waggons used by METRANS are 30 percent lighter than comparable rolling stock in service in Europe. These enable more containers to be loaded and  $CO_2$  emissions reduced on METRANS block trains. Taking the run between HHLA Container Terminal Altenwerder in the Port of Hamburg and Warsaw, then a fully loaded METRANS train causes about 45 percent less  $CO_2$  emissions than would any average train under way in Europe.

#### How is customer acceptance for what you are offering?

We started off with a pilot stage, during which we were able to attract two leading logistics players, the forwarders Cargo Partner and Weets Group. Other logistics providers have now discovered HHLA Pure and been able to integrate this in their sustainability strategies to implement climate-friendly transport chains.

HHLA Pure customers receive a certificate from us confirming climate-neutral transport and the  $CO_2$  emissions compensated by it. This enables them to show proof of their commitment to climate protection.

### *Is climate-neutral container transport available throughout the METRANS rail network?*

No, but in a large part of the METRANS network. HHLA Pure is currently available on all services to and from Hamburg, Bremerhaven and Koper, and we shall shortly be integrating others. We also aim to offer HHLA Pure very soon for pre- and post-carriage trucking, thus giving our customers the chance of also having climate-neutral transport for the final mile.



Robert Groiss Business Development Manager for METRANS

![](_page_11_Picture_1.jpeg)

## Quartermasters manage climate protection

Sustainability, environmental protection and Green logistics are the topic for warehouse-keepers H.D. Cotterell. From this year onwards, this Hamburg-based specialist in cocoa, coffee, spices, dried fruits, nuts and natural rubber can even claim to be a climate-neutral company.

For over 125 years, this family-managed company has been an important source of expertise in the Port of Hamburg for storing, handling, and trading in, agricultural products from overseas. One strategy making Cotterell so successful to this day has been its willingness to face up to fresh challenges and to pursue ongoing visionary development. From that angle, there was no question for the service provider that it should also lead the way on sustainability.

Since 2019 Cotterell has been recording its  $CO_2$  footprint so as to make its savings measurable and comparable. The firm wanted to be 100-percent climate-neutral by 2028 – yet it has already achieved that this year. Upgrading its vehicle park with e-cars was one way of getting there. The proportion of vehicles with e-propulsion is currently around 35 percent and should increase further. Green current is also being consumed at Cotterell sites, and a first photo-voltaic unit installed for charging e-cars and forklifts. So the warehouse-keeper is setting a good example, although CEO Thomas Cotterell also realizes that this is not yet a complete solution: "We are aware of our responsibility, also that in our business, for so long as supply chains remain as they are, being  $CO_2$ -free in our processes is not at present possible. Yet we can compensate for the resultant emissions and are doing so with high-grade climate projects," he explains .

Along with the City of Hamburg's partnership for air quality and low-pollutant mobility, and Certification by the German Institute for Sustainability & Economy, the company is also actively championing the 'Tropical Mix' climate protection project of 'natureOffice'. In joining this, H.D. Cotterell aims to offset unavoidable emissions. 'Tropical Mix' is an extremely fit-for- purpose solution for the company, being a project to promote sustainable forestry and cocoa growing in Panama. The Hamburg cocoa specialist is also very purposefully promoting greener logistics.

## LED lights illuminate Eurogate Terminal

The first four lighting masts at Eurogate Container Terminal Hamburg were equipped with LED floodlights at the end of 2017. The entire container terminal, as well as the Eurokombi Terminal and Dradenau tank farm, have now been equipped with environment-friendly LED lighting.

By mid-November 2018, a total of about 600 floodlights had been changed and 47 lighting masts fitted with LED lighting. Of the masts with a height of between 38 and 45 metres, five are sited at the intermodal rail terminal, ten in Dradenau and 32 at Eurogate Container Terminal Hamburg – CTH.

The project was planned and implemented by Eurogate Energy and Sustainability Management, Eurogate Technical Services and CTH. Specific local conditions such as mast heights, light intensity and incidence, colour rendering and special terminal-related factors were checked during a preliminary test stage. Eurogate staff had the opportunity to provide their feedback. Their comments and requests were then considered in configuring and installing the new lamps.

Apart from bringing considerable cost savings, the LEDs are also very environment-friendly. They consume no more than about 30 percent as much energy as normal floodlights. That produces an annual saving of around 875 tons of  $CO_2$ . In addition, their higher proportion of blue light makes them more insect-friendly, promoting biodiversity in the port. Eurogate/Red

![](_page_12_Picture_7.jpeg)

The 'Mach2' logistics facility located in direct proximity to the Port of Hamburg

## Four Parx realises sustainable logistics facilities

Continued shortage of space in metropolises and conurbations is making the requirements of those developing projects for industrial, trade and logistics facilities increasingly complex. In Hamburg-Wilhelmsburg, Four Parx along with its partners AEW and GSE Deutschland is in many respects breaking new ground in building a first two-storey logistics facility. In this complex conversion project, Four Parx aims to couple innovation and sustainability, setting fresh standards for logistic premises designed for the future. For this scheme, in 2020 its developers received the Brownfield 24- Special Prize for innovative property projects.

Rushing from one record to another, for several years the logistics property market has been reporting unstoppable growth. Even the Corona pandemic and the ensuing economic crisis have been unable to halt this. On the contrary, at 7.6 billion euros, property services provider CBRE reported a ten percent leap in transactions for logistics premises in 2020, with total area handled at 6.9 million square metres. As before, growth has been powered by the booming online trade. Especially during the pandemic and a countrywide lockdown, this has enabled people to order essential foodstuffs, medicaments and medical products.

### SHORTAGE OF SPACE CALLS FOR NOVEL SOLUTIONS

Despite sustained heavy demand, users and project developers alike are encountering acute shortage of space nationwide, Metropolises and conurbations, where traders, producers and logistics service providers are especially eager to be near their customers, are particularly affected by the shortage of sites. As a result, development and application of innovative ideas and schemes for securing sites are further gaining in importance.

With completion of the two-storey 'Mach2' logistics complex, innovative Dreieich-based project developer Four Parx, specialists in commercial property, in cooperation with investment and asset managers AWE and the GSE Deutschland building group, is blazing new trails in developing logistics facilities fit for the future. Four Parx is having this lighthouse project constructed at Hamburg-Wilhelmsburg, making two levels of equal utility with a total area of 123,000 square metres available for users, centrally located in the Port of Hamburg.

#### **COMPLEX REVITALIZATION**

In 'Mach2', Four Parx is once again focussing on sustainability. The project developers are not only striving for sustainability certification under 'BREEAM – Very Good' that recognizes ecological quality, e.g., of materials, water and energy, but with 'Mach2' is also completely revitalizing drinks manufacturer Refresco's former production site. Four Parx is accordingly providing urgently required areas for logistics without having to start impinging on a previously unused 'green' area. In this way, the project developer is making a decisive contribution to green logistics.

#### **COUPLING INNOVATION AND SUSTAINABILITY**

"We at Four Parx faced up to the current challenges for successful project development by coupling innovation and sustainability," says Oliver Schmitt, the company's Managing Partner. "This is demonstrated by our 'Mach2' project, in particular, where we have not only displayed a pioneering spirit and the courage to pursue fresh approaches and ways, but also right from the start remained aware of the requirements of a development considerate of the environment and the climate. For that, we also tackled the challenges of extraordinarily complex revitalization measures."

Meanwhile, substantial progress of construction can be reported from the 'Mach2' model project. In September 2020, for example, a start was made on providing heatable truck ramps, guaranteeing problem-free use of the upper level even at the chillier times of year. Completion of the facility is envisaged for end-2021. Four Parx/Red

![](_page_14_Picture_10.jpeg)

Smooth Ports Project: Hamburg strives for sustainable reduction of  $CO_2$  emissions in the Port.

## Smooth and efficient transport flows for the environment

### Inefficient road traffic in port areas causes CO<sub>2</sub> emissions. In Hamburg and elsewhere, this problem is addressed by the Interreg-Europe Smooth Ports project.

We all recognize it: trucks in queues as far as the eye can see – especially in and around the Port of Hamburg. At rush hours, making progress is almost impossible. That not only irritates commuters on their way home, or truckers obliged to take up scheduled slots. The environment also suffers from constantly idling enUnder this European project, numerous highly promising measures to reduce greenhouse gases were identified between 2014 and 2020. In the 'Traffic management' category, such measures as 'DIVA' and the 'Slot Booking Platform' are highly effective in ensuring smoother traffic flow in the port area. When combined with intelligent © iStock/

gines, the CO<sub>2</sub> emissions and the noise pollution these cause. In a holistic approach, Smooth Ports aims to avoid precisely this. To facilitate smooth and efficient transport flow in the long term, stakeholders from the public sector, the port business and logistics sector along the entire added value chain are being involved. The main focus is on optimizing the procedure for clearing goods, IT and communications technology support for traffic-related port activities, and research into alternative fuels.

![](_page_15_Figure_7.jpeg)

container management guaranteed by digital solutions like MYBOXBPLACE and EVE – Effective Overview of Traffic Situation – the number of empty containers transported can be minimized and bottlenecks avoided.

A survey as part of the project now indicates which measures to reduce  $CO_2$  in the Port of Hamburg also promise success from the business angle. Stakeholders stated that at the moment, they would primarily support process consolidation – Border One-Stop-Shop, BOSS, then alternative technologies/fuels, and thirdly, other steps such as sustainable driving. Firm plans even exist meanwhile for process consolidation. Hamburg will take the lead in Germany with the national pilot project 'Border One Stop Shop' – BOSS by centralizing veterinary and statutory food import checks, plant health, conformity and Customs checks at the Waltershof/Finkenwerder Strasse site hitherto used by Hamburg Customs Headquarters.

All these innovative steps are leading to a reduction in unnecessary  $CO_2$  emissions. For Hamburg, the

Smooth Ports Project is a valuable contribution towards achieving the goal of making the Port of Hamburg climate-neutral by 2050. Lea Mentzel

![](_page_16_Picture_5.jpeg)

**Smooth Ports** is an Interreg-Europe project aimed at reducing  $CO_2$  emissions from trucks in port areas. For Hamburg, the Ministry of Economics and Innovation as lead partner is coordinating project activities. Along with Port of Hamburg Marketing, others are the port authorities of Livorno, Italy; Nantes Saint-Nazaire, France; Monfalcone, Italy; and Varna, Bulgaria. Further details of Smooth Ports can be found atwww.interregeurope.eu/smoothports.

## THE WORLD IS OUR WORKPLACE

![](_page_16_Picture_8.jpeg)

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## Green hydrogen for clean mobility

Green hydrogen arose like a Phoenix out of the ashes. At a stroke, there seems to be an energy source that sustainably ensures clean air, always provided that it is produced from regenerative sources. Intensive work now needs to be done on the entire added value chain.

Efforts to establish hydrogen –  $H_2$  – as an alternative fuel, among other things, go back some years now. The problem is that its energy efficiency in comparison to diesel fuel is just 60 percent. A massive amount of energy is required to produce it. Hydrogen only becomes a truly positive enrichment of the range of renewable energies provided that it is produced from regenerative power sources. That seems to be happening now with growing success. The excess power being produced by offshore farms in the North Sea could play its part in hydrogen enjoying an unprecedented boom.

The first groundwork was done two years ago. Bremen, Hamburg, Lower Saxony, Mecklenburg-Western Pomerania and Schleswig-Holstein signed up for a joint hydrogen strategy. It was also laid down that by 2025, at least 500 megawatts of electrolysis output for the production of green hydrogen would be installed in Northern Germany, rising to at least five gigawatts by 2030. The five states now need to get a complete system up and running. That starts with production, continues with building up an infrastructure, and goes as far as lining up commercial users.

#### HAMBURG WILL LEAD THE WAY

Michael Westhagemann, Hamburg's Senator for Economics and Innovation, illustrated just how important green hydrogen could become for the city back in September 2020. Welcoming delegates at an event hosted by the German Hydrogen and Fuel-Cell Association, he said: "The subject of hydrogen has finally crept out of its niche, blossoming within a very short time into an international topic for the future. Hamburg has already positioned itself well here. I believe that the key for hydrogen will lie, not only in sufficient production – ideally from regenerative sources – but above all, in how it is used." For the senator the aim is now to give high priority to building up a hydrogen industry: "My goal is that Hamburg should play a decisive role there."

Hamburg and the entire Metropolitan Region, including the port, therefore want to profit from this new

![](_page_18_Picture_1.jpeg)

boom. "The port is on the one hand a testbed for hydrogen technologies, for example in shipping. As the next step, HPA wants to equip a few vessels in the Hamburg Fleet with fuel-cell technology. On the other, the abundance of industrial units offers sufficient potential for large-scale savings of  $CO_2$  by conversion to hydrogen technology. Examples in aluminium and steel production demonstrate that. Moorburg offers the chance to become the core of a major electrolysis facility," says Ingo Egloff, Joint CEO of Port of Hamburg Marketing.

H&R Ölwerke Schindler proves that hydrogen also lends itself well to the chemical industry. Back in November 2017, the company put into service the world's then largest flexibly-regulable hydrogen-electrolysis unit at its refinery site in Hamburg. When a surplus of wind power occurs, for example, this can very rapidly be ramped up, or switched off during a lull. Hydrogen is among the components of the process used by the company to produce such oil-based specialities as paraffins, and white or process oils for further use in cheese rinds, lipsticks, printing inks or car tyres.

![](_page_19_Picture_2.jpeg)

"Precise details are required of the potential for scaling and use, so that the companies involved can also make commercial use of green hydrogen."

Peter Lindlahr, CEO of hy Solutions

Yet some homework is still required before the ball is set rolling in Hamburg. "As one element of a process-optimized settlement development, the ports need to firmly make available plots and areas for the setting up of clusters and/or hubs for hydrogen," recommends Friederike Berg-Packhäuser, a lawyer with Berg-Packhäuser and Colleagues, adding: "In marketing these, especially, it is essential that attention is paid to existing obligations under public procurement, cartel and state aid laws to invite tenders."

A politically welcome project could now materialize at the decommissioned Moorburg coal-fired power station. Shell, Mitsubishi Heavy Industries, Vattenfall and Hamburg Communal Heating are planning how they could in future jointly be capable of gaining hydrogen from wind and solar power at the Moorburg site. Conditions there look good. The power station is connected to both the national 380,000-volt transmission grid and the City of Hamburg's 110,000-volt network. In addition, vessels can berth there on the spot. The four players are therefore planning a Green Energy Hub. This is to be equipped

"The subject of hydrogen has at last crept out of its niche."

> Michael Westhagemann, Senator of Economics and Innovation of the Hanseatic City of Hamburg

with an electrolyzer with a still scalable 100-megawatt output. Whether this site can be used for generating energy on the basis of renewable energies is also to be investigated. The four companies also aim to consider possibilities for storage, as well as future logistics chains. If all goes well, a start could be made in 2025. From production to storage to transport, the entire hydrogen added value chain could then be mapped out.

Yet before the project gets that far, a few planning and legal/licencing questions must be tackled as soon as possible from the statutory angle, among

![](_page_19_Picture_11.jpeg)

![](_page_20_Picture_1.jpeg)

The project "Westküste 100" wants to map out the complex value chain for hydrogen. Starting at the production stage, this also includes the storage and use of the substance in various areas and the utilisation of the waste heat that is generated during the production process.

![](_page_20_Figure_3.jpeg)

![](_page_20_Picture_4.jpeg)

### C. Steinweg (Süd-West Terminal) GmbH & Co. KG

### **Terminal operations in the port of Hamburg**

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![](_page_20_Picture_17.jpeg)

others. "The legislature should create legal certainty as soon as possible. For that, safety standards should be defined. In addition, hydrogen plants need to be clearly positioned in the context of existing legal and planning regulations," says Christian Kahle, a lawyer and partner with BRL – Boege Rohde and Luebbehausen.

Structures and aims are required to achieve this. "Given the broad range of possible uses, the complexity of the resulting changes still facing us, and the very high expectations of green hydrogen's role in the future energy system, we need to be clearly focussed and to set priorities," demands Peter Lindlahr, CEO of hy Solutions. For the user's side, therefore, the potentials for scaling and application need to be precisely defined so that the companies concerned can also use green hydrogen commercially, he adds, immediately suggesting a few possibilities : "Tangible instruments for this are such tax concessions as special depreciation, incentives in the area of extra expenditure on operations, and massive costs degression resulting from the effects of scaling." © iStock/remotevf

![](_page_21_Figure_4.jpeg)

#### **Converted Trucks**

The Hamburg-based company Clean Logistics wants to convert diesel trucks and buses to run on hydrogen. As soon as they are authorised, they can commence production and be on the market before the established manufacturers.

It is, as so often, the chicken-and-egg problem. Even if transport companies were eager to convert their fleets to run on alternative fuels, there is a lack of vehicles and often also a lack of infrastructure. Dirk Graszt and Dirk Lehmann came up with a solution a few years ago when they started to develop a hydrogen-powered truck. The idea is to convert conventional diesel trucks. The vehicles are fitted with six hydrogen tanks of 43 kilograms each at 350 bar and an electronic rear axle. In addition, a battery will store the recovery of braking energy. In total, a trailer should then have a range of 500 to 600 kilometres.

Clean Logistics cuts off the frame and attaches a custom axle block. This adds about 60 centimetres to the overall length of the truck. The battery is located on the front axle, the fuel cells are placed at the same height as the hydrogen tanks, which are installed behind the driver's cab.

The plan is in place and Clean Logistics is ready to go. The only thing missing now is the permit for an extended chassis. Then things can finally get started. The company is already a little further along in the conversion of buses. Clean Logistics is building is building two buses for the Uckermärkische Verkehrsgesellschaft and the state of Brandenburg this year.

#### **NEUMÜNSTER H, HUB MAKING PROGRESS**

Some companies around Neumünster are reluctant to wait so long. They are joining forces as 'first movers' to create a hydrogen-based transport hub. The focus is on road traffic in Schleswig-Holstein. Those involved include supermarket chains Edeka and Netto, MBA Neumünster waste management, logistics companies such as Christian Carstensen and Herbert Voigt, wholesaler Henry Kruse, builder Ernst Krebs, Clean Logistics and project developer/ operator Hypion. "It is very important to cover an entirely holistic system with the entire value-added chain.

This starts with production of green hydrogen, continues with the siting and building of a filling station infrastructure and concludes with the users," explains Holger Matzen, responsible for renewable energies at logistics provider Herbert Voigt.

Those involved in the project aim to take concerted action to establish green hydrogen as an alternative fuel in Schleswig-Holstein. "A network of seven to ten filling stations will need to be built. As a first step, the members aim to join forces to acquire a fleet of 20 fuel-cell-powered trucks. The first ten of these could be under way by next year," says Stefan Rehm, Development Director for Hypion. These are to comprise articulated trucks as well as distributor trucks of twelve and 18 tons permissible total weight. The number of trucks was not chosen at random, since to be able to operate a filling station, 800 kilograms of hydrogen need to be sold daily at an early stage. With a load capacity of 35 to 40 kilograms of H<sub>2</sub> per truck, each should if possible, fill up daily. This is a realistic approach, since at present a vehicle using the alternative fuel could cover between 400 and 500 kilometres.

For this, Heide Refinery could supply the fuel. The West Coast Real Laboratory 100 is being built there. At the first stage, its core element will be a 30-mega-watt electrolyzer for using wind power to win hydrogen from water – completely  $CO_2$ -free. Those responsible in Heide don't want to leave it at that. A coupling of sectors is planned. The heat derived from production will be distributed in the trading estate, while the oxygen will play a part in the region's cement production. Ralf Johanning

![](_page_22_Picture_7.jpeg)

### Was Deutschland braucht, bewegt die HHLA.

Als eines der führenden europäischen Logistikunternehmen bringen wir Waren und Güter in Bewegung – und die Transportströme in Fluss. Mit Verantwortung. Mit Verlässlichkeit. Und mit Nähe zu unseren Kunden. Als logistischer Knotenpunkt und Teil der Versorgungsinfrastruktur sorgen wir auch in schwierigen Zeiten für Stabilität in Deutschland. Wir sind Bindeglied zwischen lokalen und globalen Märkten sowie der Logistik von heute und morgen. Denn: **Die HHLA ist das Tor zur Zukunft.** 

![](_page_22_Picture_11.jpeg)

![](_page_23_Picture_1.jpeg)

## Transport going green

## With TFGreen – THE GREEN WAY, TFG Transfracht has launched a comprehensive sustainability strategy. The company has actively committed itself to climate protection in containerized seaport hinterland logistics.

Ecological action and commercial growth need not be mutually exclusive. This is being demonstrated by TFG Transfracht with more than 250 weekly departures connecting the major hinterland terminals in the German-speaking region and yet building on environmental protection. To achieve this the company is pursuing a clear goal: "It is our vision to be the first operator of complete CO<sub>2</sub>-free rail transport and climate-neutral road services, stated Dr Bernd Pahnke, spokesman for the executive board of TFG Transfracht. Applying concrete internal and external plans, the logistics service provider is making great steps in this direction. By one measure alone, switching 900,000 truck runs from road to rail, 360,000 tons of  $CO_2$  can be avoided.

#### PATH OPEN FOR CLIMATE NEUTRALITY

In comparison with road haulage, rail freight services already prevent 80 percent of  $CO_2$  emissions. TFG is well aware of this and has made rail its preferred mode of transport. Not only transferring freight is a key topic here, since TFG wants to give its customers

![](_page_24_Picture_1.jpeg)

the opportunity to, "operate actively for environmental protection and become environment improvers," explained Dr Pahnke. This can be achieved, among other solutions, with the TFGeco train, that with the application of green electricity runs 100 percent CO<sub>2</sub>free. This environment friendly transport is already running on all domestic German routes.

Further climate measures that TFG is implementing include increasing utilization of train capacity, re-equipping with whispering brakes and actively promoting modernizing railcars.

#### COMPENSATING ON THE ROAD

Under the TFGreen initiative, TFG wants to structure the greatest possible part of the transport chain climate neutral, therefore placing importance on environment friendlier trucking. Since some emissions in the pre- and post-rail transport are very difficult to avoid especially over 'the last mile', TFG has extended its product portfolio with the TFGeco truck. Here, the emissions to be compensated for are precisely calculated, facilitating the promotion of various sustainability projects supporting the build up of renewable energies.

Moreover, only vehicles that are low in pollutants, noise reduced and energy saving are deployed. TFG has in the meantime introduced seven climate-friend-ly transport solutions.

With TFGreen, the logistics service provider has initiated an integrated sustainability strategy. "In addition, our staff make their daily contribution to implementing our internal TFGreen measures – for an environment-friendlier TFG", added Pahnke. Lea Mentzel

## Environment-friendly crossing

#### The 'Greenferry I', a ferry powered by liquefied gas, is starting its operations in March between Brunsbüttel and Cuxhaven. This should above all be of advantage to trucking companies and forwarder customers that will be able to cross the Elbe faster with the new service.

For Heinrich Ahlers, it has been a long-term concern to restart the Brunsbüttel–Cuxhaven ferry line. "I already tried to activate the ferry in 2004, but at that time we failed because of money," he recollects. In March the 'Greenferry I' will set out on her maiden voyage from her homeport of Cuxhaven. The operator is Elbferry, whose stakeholders are Strahlmann shipping and MTB new energy, specialized in renewables, both based in Brunsbüttel.

Ahlers has wide-ranging experience in ferry services, but also in the port and logistics industry. He and his Joint CEOs Christian Strahlmann and Tim Brandt are

convinced that the new crossing will above all be advantageous for trucking, since: "On our ferry no one who has booked has to wait – your crossing is guaranteed."

The operators of the line are planning above all with freight customers, who will no longer have to make the long, construction-site

![](_page_25_Picture_7.jpeg)

**GREENFERRY** I

#### **Technical data**

Length:	129,50 Meter	Building yard:		
Wide:	19,20 Meter	Speed:		
Draft:	4,50 Meter	Fuel:		
Year of manufacture: 2007				

Aker Brattvaag 21 knots Liquid gas (LNG)

Brandt, who is responsible for the new propulsion fuel, among other things. The ferry in operation is powered by liquefied gas. Liq-

directly from the ferry on to the B5, or vice versa," says

uefied Natural Gas or LNG is considered as an environment-friendly alternative to conventional fuels such as crude oil or ships' diesel, since it only causes minimal quantities of emissions and air pollutants. This 130-metre-long vessel is the 14-year-old 'Fanafjord' ferry coming from Norway, and now comprehensively renovated for its new sphere of operations.

With space for 600 passengers plus 28 trucks and

150 cars, or 212 cars, the ship should operate a three-hourly service between Brunsbüttel and Cuxhaven at the mouth of the Elbe. "The ferry that sails at 21 knots is so fast that she can always achieve the 60-minute schedule on the 15.5 seamile stretch between the two ports, regardless of

prone, time-intensive way through Hamburg Elbtunnel, or some other more widely-flung Elbe crossing. "On the Lower Saxony side you come out of our terminal directly on to the A27 and in Schleswig-Holstein you go

currents or prevailing winds," states Strahlmann. Those wanting to use the crossing, can book their ticket online, by e-mail, phone or even directly on the spot. Nicole de Jong

![](_page_26_Picture_1.jpeg)

## 'Elektra' sailing with zero emissions

## Going forward, this cutting-edge push boat will be supplied with power from a fuel cell. Later this year, the Berlin port and warehousing company will trial the inland waterway craft developed by TU Berlin between Berlin and Hamburg.

TU Berlin University of Technology is currently developing the first zero-emissions push boat worldwide named 'Elektra'. During the course of the year, it should be trialled for Behala – Berlin port and warehousing company – on the inland waterways between Berlin and Hamburg. "The project is of special significance for us, because our facilities lie in the heart of Berlin-Brandenburg capital city region. Environment-friendliness and sustainability for the conurbation play a

great role for us," says Klaus-Günter Lichtfuss, Behala's head of logistics, who also wants to set an example for inland shipping.

"We have developed an energy system that can act as a blueprint for almost all inland and coastal vessels," explains project initiator Prof. Gerd Holbach from TU Berlin. The outline concept calls for the use of components that already exist. For example, the designers resorted to generating electricity from a fuel cell, plus a battery with 2.5 MWh.

![](_page_26_Picture_7.jpeg)

#### **Technical data**

Length:	20 m	Fuel cell:	3 x 100 kW
Wide:	8,2 m	Hydrogen bundle:	6 x 125 kg
Draft:	1,25 m		at 500 bar
Verdrängung:	ca. 135 t	Battery capacity: ca.	2,5 MWh
Drive: 2	2 x 200 kW	Source: TU Berlin	

"With the fuel cell, we can provide as much performance as the vessel normally needs for sailing at around 8.5 kph," explains the graduate ship's engineer.

When overtaking, or having to reduce the convoy's speed suddenly because an obstacle has appeared,

for example, the battery also comes into play. The propulsion and power system for the craft that is still under construction, have been configurated for the roughly 400-km stretch from Berlin to Hamburg. This means that 'Elektra' can sail without needing to take on energy on route. On board, there are three fuel cells each producing 100 kW performance, plus serviceable hydrogen of 750 kg at 500 bar in six exchangeable H<sub>2</sub> cylinder bundles. These can be deliv-

ered to the port required by truck or rail from within the region. Using a port or deck crane, the delivery itself lasts 30 to 60 minutes. "The battery that we have on board is relatively large, because in day-to-day operations the 'Elektra' should also sail the 65 km in Berlin on battery power alone," stated the professor. Implementing the energy concept for this vessel presented the project partners with a big chal-

lenge. "We have very consciously allowed for a really comprehensive, long-term trialling programme, to render this concept marketable. We are absolutely certain that we shall manage it," added Lichtfuss. Nicole de Jong DHL not only wants to compensate for climate impacts, but to avoid them directly within the transport sector.

## True decarbonization through paradigm shift

Global freight transportation is currently responsible for 8 percent of global carbon emissions, rising to 11 percent if emissions from logistics sites are included. If business continues as usual, emissions will double by 2050 as the demand for freight shipping is expected to grow threefold over this period.

In 2018, only 0.2 percent of the US\$269 million in voluntary carbon offset investments went to transportation. The vast majority of these funds were invested in forestry, renewable energy, and other offsetting projects. These projects are certainly beneficial, but they do not reduce greenhouse gases emitted by the transport sector itself, nor co-pollutants like black carbon, ozone, and nitrogen oxides. While these carbon offsetting-projects compensate for climate impacts by funding a carbon reduction project outside the sector of impact, a carbon inset funds projects aimed at reducing carbon emissions in the sector where they are emitted. Carbon insetting unlocks an enormous reservoir of untapped potential. If done right and at scale, it could result in a significant shift towards greener logistics technologies that could sharply reduce the size of the industry's climate footprint. Although not everything can be replaced by greener alternative directly, carbon inset allows to bundle funds from different stakeholders that invest into a greener transport mode independent on where they are located and on which lane they are shipping goods.

Alternative sustainable fuels like hydrogen and biofuels are two examples of how we can move towards greener logistics. To scale up the development and use of these fuels will not only require new fleets of vehicles and vessels, but also new infrastructure for fuel production and distribution. Fleet renewal, engine retrofitting, and increased efficiency are further solutions that, when applied at scale, would lead to long-term structural improvements up and down the logistics supply chain and sharply reduce the industry's carbon footprint. Of course, marine logistics plays a crucial role in this.

#### RENEWABLE FUELS LEVERAGE MORE SUSTAINABLE OCEAN FREIGHT

Deutsche Post DHL Group has been exploring renewable fuels as an important part of minimizing ocean freight's impact on the environment. Already today, CO<sub>2</sub> neutralization for FCL and LCL shipments can be achieved by using maritime biofuels. Core of this approach initially developed by the GoodShipping Program is that the heavy oil that would ordinarily be used is replaced with sustainable marine biofuel on board preselected container vessels. Of course, the renewable fuels are benchmarked against key criteria, to ensure that they are produced sustainably and do not compete with other needs, for example with food production for land use. Following strict sustainability standards, the waste-based biofuels must meet the requirements to be qualified as the cleanest biofuels currently available on the market. At DHL Global Forwarding, Freight, all global "less-than-container" (LCL) load shipments in Ocean Freight are decarbonized this way since beginning of this year. ■ Kathrin Brost

![](_page_28_Picture_5.jpeg)

Kathrin Brost, Global Head GoGreen Program, DHL Global Forwarding

![](_page_28_Picture_7.jpeg)

![](_page_29_Picture_0.jpeg)

## "We must keep our values in mind"

## As its Sustainability Manager, Dorita Hermes often works at the interface between top management and operative levels at Hamburg Port Authority – HPA. For this 63-year-old, the controversies that arise really add excitement to her job.

'Who actually controls Mrs Hermes?'. That's a question that top management at Hamburg Port Authority – HPA – often have to listen to when their Sustainability Manager aims to apply new strategic measures in the individual departments. "I can handle such situations well. Since I am a firm believer in our way of proceeding, which is based on accepted standards. I am also well able to weather such resistance," declares Dorita Hermes. For her, moreover, there are no alternatives to the selected measures. The aim must be to convince staff that they are acting correctly, feels Hermes.

To also be able to implement her ideas while recognizing what is practical, Dorita Hermes has secured a large network. This gives numerous specialists, experts and academics, from other ports, large industrial firms, and universities, plenty of scope. Here she receives many suggestions that can also be adapted for application in the Port of Hamburg.

Her own world of values, for example, has repeatedly changed in her last ten years with HPA. "Previously I always incorporated 'prosperity' in the slogan about the social added value of the port. Yet today this 'prosperity' no longer fits, since we also have a responsibility for the world when it comes to consumption of fossil resources. Prosperity can no longer be the measure of all things, instead what we need is a world worth living in for everybody," stresses Hermes.

For the Sustainability Manager, people, especially, play a significant role in HPA's added value chains. In her opinion, these constitute the company's greatest asset. "We must definitely take up our colleagues precisely where they stand and join forces with them to ensure adequate vocational and further training. Only with these, namely, can we implement digitalization, apply our own strategy on climate, and initiate a change of perspective," says Hermes.

For Hermes, it is a certainty that the climate strategy will be implemented: "We have a really excellent plan providing for us to abandon heating oil and gas by 2030. At the same time, we want to re-equip our own fleet and are examining such alternative fuels as hydrogen." CO<sub>2</sub>-neutral construction is among additional significant measures.

This graduate civil engineer is very familiar with that. For over 20 years she built and re-built industrial plant for the oil industry. In every project, environmental repercussions and treatment of contaminated waste played a part in decisions. Today there is

"We have a really excellent plan providing for us to abandon heating oil and gas by 2030. At the same time, we want to re-equip our own fleet and are examining such alternative fuels as hydrogen."

even more emphasis on that. Even within HPA, new buildings with 'green' roofing are planned.

At latest on taking over responsibility for the port's Sustainability Report, Dorita Hermes discerns a transformation. "That really brought HPA to the forefront. We now realize how and where we must and will assume responsibility as a company. In any case, I can increasingly win over my top management for such schemes."

So Dorita Hermes is now mainly engaged in integrating worldwide clusters of aims and ethical guidelines into HPA operations. She holds workshops and invites experts and in particular, involves people at HPA in negotiating.

She also receives a modicum of support from legislative institutions that are applying a growing number of such new laws as the European Green Deal. For Dorita Hermes, the main consideration is now to keep in mind sustainability values for any new measures planned: "In paying attention to that, then our business model will also remain economically suitable for transfer to others." Ralf Johanning

# Shipping industry discovers LNG

白銀口川原

Liquefied Natural Gas – LNG is now considered a tried and tested shipping fuel, to fulfil the more stringent requirements for reducing emissions on the high seas called for by the International Maritime Organisation – IMO. This alternative fuel could initially be a money-spinner. The first shipping lines have refitted their ships or have just built new ones.

It is 8 November 2020, the 'CMA CGM Jacques Saadé' has reached the Port of Hamburg on her maiden voyage. The design of this Megamax class container vessel's bow alone has you thinking that this is not just another conventional container giant. To date, it is the largest containership operated with LNG. Two tanks with a liquid capacity of 18,600 cubic metres, make it possible for the 'CMA CGM Jacques Saadé' to cover a distance of 23,372 sea miles. This suffices for a round voyage from Northern Europe to East Asia and back. The 'CMA CGM Jacques Saadé' is the first of nine LNG powered sister ships that CMA CGM will bring into service in the coming years. With these nine vessels, the French logistics group is pursuing its sustainability strategy, since LNG reduces the output of environmental pollutants. After all, 90 percent of goods traded worldwide are transported by sea, the shipping industry needs an alternative to the existing fuel.

NEPONER

On 8 November 2020, the Port of Hamburg welcomed the world's largest container ship powered by LNG.

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#### German LNG Terminal

The German LNG Terminal is a joint venture involving Gasunie LNG Holding, Oiltanking and Vopak LNG Holding based in Brunsbüttel. Their aim is to build and operate a multi-functional LNG terminal in Brunsbüttel. At present, there are almost 40 comparable terminals across Europe, but Germany has absolutely no facilities of its own.

The German LNG Terminal should be built directly on the Elbe, positioning it as an ideal location for the onward distribution of LNG via the Elbe, at the

entrance to the Kiel ChemCoast Canal. Park and Germany's biggest seaport Hamburg. Along with two tanks for the temporary storage of LNG, there will be a landing stage with two berths for LNG tankers of the Q-Max class and smaller LNG tankers, e.g., LNG bunker craft. Further services will be regasification,

supplying the German

natural gas network, and distribution by road tankers and rail tank-cars. The annual throughput capacity should be eight billion cubic metres.

Synthetically produced LNG can also be transhipped at the terminal. With its partners, the German LNG Terminal is also jointly investigating the potential for green hydrogen for the terminal site. For example, a memorandum of understanding was already signed with RWE last summer.

More information is available at: https://germanlng.com/de/

Up to the present, some 2-3 percent of all  $CO_2$  emissions worldwide are produced by shipping. In 2018, the IMO – International Maritime Organization issued a fixed timeframe for reducing  $CO_2$  in shipping. By 2030, emissions should be reduced by 40 percent, by 2050 even 50 percent. The big picture is that by 2100, at the latest, the reduction should be 100 percent. An alternative fuel that is being increasingly introduced is LNG. This is however seen as a bridging technology, since the  $CO_2$  emissions are not removed by a sufficient amount.

#### ONLY BIO-LNG CAN BE ALMOST CO, NEUTRAL

Currently, LNG is mainly produced from conventionally extracted natural gas. At minus 161 degrees Celsius it liquifies, reducing its volume 600-fold. In the best case, its C02 emissions in use, compared to conventional ships' fuel, are reduced by 20 percent. Bio-LNG is produced in biogas plants, meaning that it is effectively liquefied bio-methane. When using Bio-LNG even 80 percent of CO2 can be avoided. There are almost no CO<sub>2</sub> emissions then using synthetically produced LNG. In a power-to-gas process, hydrogen is produced that can be transformed into synthetic natural gas through methanization. With both Bio-LNG and synthetically produced LNG, currently no major quantities can be produced. Yet, the key to being emission-free sailing lies precisely in producing fuel this way.

#### MANY SHIPPING LINES ARE REFITTING VESSELS

The first LNG powered mega-containerships belonging to the French logistics group CMA CGM have been sailing the high seas since last year. By 2022, CMA CGM's fleet will have grown to 26 LNG- powered container vessels of different sizes. The deployment of LNG vessels is a major step for the logistics group towards its target of being climate neutral by 2050. The Hamburg shipping line Hapag-Lloyd, as the first shipping company worldwide, started a pilot project in the middle of last year, refitting its mega-containership 'Sajir' to run on liquefied natural gas. She is going into service during this first quarter of 2021. In addition, six LNG powered vessels were ordered at the end of 2020. Moreover, 16 further ships in the fleet are 'LNG ready'. Hapag-Lloyd has already been putting its faith in LNG, since mega-containerships have a lifecycle of up to 30 years. The real long-term aim is to be emissions-free, deploying synthetically produced methane gas.

The biggest container shipping line worldwide, Maersk is not satisfied with the LNG bridging technology as a fuel for its fleet. In Maersk's view the disadvantage lies in the fact that LNG produced from conventionally extracted natural gas is still a fossil fuel. The shipping line wants to switch directly to a climate-neutral fuel, but that still needs some years of research. Since the takeover of Hamburg-Süd by Maersk, the fleet management of both lines lies with the Danish Maersk Group.

![](_page_34_Picture_1.jpeg)

#### An example of LNG power using the CMA CGM Jacques Saadé

\*compared to convetional drives

Shipping companies such as Hapag-Lloyd, with Hamburg as their homeport, can well imagine bunkering in Hamburg, once the necessary infrastructure is established. Currently there are three potential locations for LNG terminals in Germany. In Wilhelmshaven a floating LNG terminal is at the planning stage. A terminal with a throughput capacity of eight billion cubic metres annually is set to be constructed at Stade. The 'German LNG Terminal' is to be built directly on the River Elbe at Brunsbüttel. Liquified natural gas is a realistic solution, to reduce CO<sub>2</sub> emissions in shipping and to reach the targets set by the IMO in 2018. It remains to be seen which other technologies, such as hydrogen propulsion, will be further developed and adopted in the shipping industry, since LNG, in its current form fulfils the IMO's target for 2030, but not for 2050. Catharina Pape

![](_page_34_Picture_6.jpeg)

![](_page_34_Picture_7.jpeg)

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![](_page_34_Picture_15.jpeg)

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## PETER PICKHUBEN'S

## Green Transport on the last mile

Clean and energy-efficient goods logistics thanks to bikes? That works! Ever since 2016, Tricargo has been transporting merchandise and products of all kinds aboard its quiet, safe electric cargo bikes. Whether with daily tours, express consignments or bio-fruit deliveries, Hamburg's city centre can be supplied completely emission-free by such 'Lademeisters'! The powerful 250-watt electric motor built into the front wheel of this ergonomic cargo bike enables a speed of up to 25 kph, as well as avoidance of any bottleneck. An insulated 2.17 cubic-metre freight box on the two back wheels can carry up to 210 kgs. This provides sufficient length for one Europallet, with 30 cm to spare. Trading as 'tricargo' are Radlogistik Hamburg, founded in 2016, and tricargo, which gained an entry in the Register of Cooperatives two years later. Especially in the heavy traffic of big cities like Hamburg, cargo bikes offer many advantages compared to vehicles, being environment-friendlier and arriving more quickly at their destinations. All the more practical, then, that tricargo as a regional manufacturer actually sells the Lademeister.

![](_page_35_Picture_4.jpeg)

### By the way,

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

- **f** HAFENHAMBURG
- PORTOFHAMBURG
- PORTOFHAMBURG
- IN PORT OF HAMBURG

![](_page_35_Picture_11.jpeg)

Why not fly by? Or download the Port of Hamburg app

## What's up with containers on railcars?

In an innovative scheme by ILG Innovative Logistics Group for Logistik Service – LogServ to provide resource-conserving transport, 20-ft containers are being loaded on to type Eaos railcars. A total of 68 containers are shipped on a weekly block train between Linz and Hamburg. As Europe's largest rail port, its infrastructure and cargo handling quality also make the Port of Hamburg of interest for companies in neighbouring Austria. With its worldwide technological and industrial operations, Linz-based steel group voestalpine has used the Port of Hamburg for exports and imports since 2019. Its Steel Division is a market leader for heavy plate, steel coil and complex large turbine casings. Coal and ore for these are supplied via the Port of Hamburg. After unloading steel products, the train is loaded with ore for voestalpine's Steel Division. Synergies are achieved, empty runs avoided, and a contribution made towards greener logistics.

![](_page_35_Picture_15.jpeg)

## ON TRACK FOR L SUSTAINABLE SHIPPING IN HAMBURG

With HPA's Hamburg fleet taking the lead, since 2017 this and those of the Fire Brigade, the River Police and LSBG – the State Highways, Bridges and Waterways Authority – have been run by a joint fleet management. This start-up charters vessels and floating equipment with or without staff. This municipal fleet currently comprises about 50 craft - from pilot and police launches to pilot transfer boats and transporters - along with a dredger, a barge suction station and 40 barges. Over 130 staff together pursue a consistent environmental strategy testing and implementing schemes aimed at low-emission shipping in Hamburg. This municipal fleet is to be modernized on the basis of a practical five-point plan. The use of such low-emission fuels as GTL – Gas-to-Liquid – will reduce exhaust emissions from vessels. Exhaust gas treatment plant is to be fitted in any new craft and additional equipment fitted to older ones. Development of further innovative propulsion technologies as well as efficient ship operation thanks to environment-friendly navigation has given the fleet an important function as a model for others.

![](_page_36_Picture_2.jpeg)

![](_page_36_Picture_3.jpeg)

![](_page_36_Picture_5.jpeg)

## With solar power

The Nautical Centre is a crucial feature of the Port of Hamburg. Ship traffic would not function without it. Electronically monitoring and coordinating all ships' movements in the port demands a mass of energy. In future this will be derived from a solar plant from full-service provider Q-Cells in cooperation with Hamburg-based Nordic Solar. With peak power of 53 kWp, this will supply more than 45,000 kWh – kilowatt hours – of clean energy per year for operation of the Nautical Centre, helping to achieve an annual saving of over 27 tons of CO<sub>2</sub>.

## City of Hamburg 's climate plan

As a cutting-edge conurbation and major industrial centre in Germany, it is essential that Hamburg should make a contribution towards fulfilling the Paris Climate protection goals. Hamburg is ready and has set itself firm targets for reducing CO<sub>2</sub>. By 2030, the city will reduce CO<sub>2</sub> emissions by 55 percent on 1990. To achieve climate neutrality, Hamburg will aim to reduce emissions by at least 95 percent by 2050. Its climate plan is linked with a number of measures in various sectors. These include investments in shore-based power in the Port of Hamburg.

![](_page_36_Picture_10.jpeg)

voestalpine/Eurogate

## Karin Lengenfelder 'takes over the watch' from Jürgen Behrens

After almost 48 years Jürgen Behrens, head of Port of Hamburg's Representative Office South, is bidding farewell to logistics and going into well-earned retirement. For just under 20 years, he has been the Port of Hamburg's face to the port customers in Bavaria, Baden-Württemberg and Switzerland. His relief is Karin Lengenfelder who, after 15 years in Hamburg, has returned to her home state of Bavaria for her new duties.

After successfully completing his vocational training as a shipping company & ship brokerage clerk at Hapag-Lloyd, Jürgen Behrens decided early on that his career would be in the port industry. This took him to London, Le Havre and Haiti among other places. "Logistics means getting along with a real mix of people, cultures and languages. For me, that is what is so fascinating about this field," said Jürgen Behrens. In the Mid-Eighties, setting up the United States Lines 'Round the World' service took him to Bremen and Munich in Bavaria, where he has created deep roots with his family.

Before taking over as head of the Port of Hamburg Marketing (HHM) Representative Office in Munich, he was firstly branch manager for CAST Europe Germany and then active for Senator Lines. "We want to thank Jürgen Behrens for his untiring dedication in embedding the Port of Hamburg in the minds of shippers and port customers in the South. With projects like '62 Plus' he

also succeeded in increasing the rail share of hinterland traffic with Bavaria by 10 percent," stated HHM Joint CEO Axel Mattern, commending him.

Jürgen Behrens successful work will now be carried forward by Karin Lengenfelder. In the early part of her career, for almost 20 years, she was a journalist in her home region of Augsburg, before she found her way to Hamburg. In 2008, she enlisted as spokesperson with the Hamburg Port Authority. "The port had me fascinated from the word go," says Karin Lengenfelder. As head of communications, she gained further experience at Buss Port Logistics, including topics such as offshore wind, seaworthy packaging and inland ports. After an excursion into international communication in parcel logistics, in 2018 she came on board as a communications expert at Port of Hamburg Marketing's Headquarters.

"It gives me great pleasure that in Karin Lengenfelder, who is just as at home in both port logistics and Southern Germany, we have found a competent successor for Jürgen Behrens," added HHM Joint CEO Ingo Egloff.

"I'm looking forward to my new challenge, with customer events in both southern German states and Switzerland, as well as being the one to bring the Port of Hamburg into the south," added Karin Lengenfelder.

At roughly sixty-four, Jürgen Behrens goes into retirement with somewhat mixed feelings. He will certainly still be staying in contact with the world of logistics through his many growing friendships over so many years. **•** Red

![](_page_37_Picture_11.jpeg)

Jürgen Behrens

![](_page_37_Picture_13.jpeg)

**Karin Lengenfelder** 

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![](_page_37_Picture_19.jpeg)

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## Flüssiggas statt Abgas

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Groningen

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Die neue GREENFERRY I wird mit LNG betrieben. Liquefied Natural Gas ist als Kraftstoff in der Schifffahrt auf dem Vormarsch, ist umwelt– freundlicher als die konventionellen Kraftstoffe Schweröl oder Schiffs– diesel und sorgt für deutlich geringere Schadstoffe sowie CO<sub>2</sub> in der Luft. Nutzen Sie die garantierte maximale Überfahrtsdauer von 60 Minuten für eine entspannte Pause an Deck.

THEFT

Genießen Sie an Bord die frische Seeluft ohne Abgase und tun somit nicht nur etwas für sich, sondern auch für die Umwelt. Selbstverständlich können Sie während der 30 Kilometer langen Überfahrt unser Panorama Bord-Restaurant für einen kleinen Snack oder eine ausgiebige Mahlzeit besuchen. Etwa 30 Stellplätze für LKW stehen auf der GREENFERRY I zur Verfügung und können online oder telefonisch reserviert und gebucht werden. Die Abfahrten werden im 3 Stunden-Takt gewährleistet.

Wilhelmshaven

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![](_page_38_Picture_7.jpeg)

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![](_page_39_Picture_8.jpeg)