

PORT AND CLIMATE

PORT OF HAMBURG MAGAZINE



IN PARALLEL WITH COMPANIES IN THE PORT, SHIPPING LINES ARE URGENTLY WORKING ON CONVERTING THEIR VESSELS TO MORE ENVIRONMENT-FRIENDLY FUELS.



Dear Readers,

During the South America tour by Dr. Peter Tschentscher, First Mayor of the Free and Hanseatic City of Hamburg, I was able to convince myself of the optimistic mood on climate-neutral ports. Over the next few years, the Port of Hamburg will play a vital role for imports of green fuel in Germany and Northern Europe. Senator Michael Westhagemann, Hamburg's minister of economics, stresses in an interview that this Hanseatic city is preparing intensively for this. He also points out that thanks to its good geographical location, Hamburg will be producing its own green hydrogen. The Port of Hamburg is in a process of transition to being a climate-neutral location – as impressively demonstrated by numerous initiatives from such companies based here, e.g. HHLA with its Container Terminal Altenwerder.

HPA is rapidly striding ahead. Since 2016 Hamburg's port administration has been one of the leading institutions in creating shore-based power units. Those responsible made a start at Altona Cruise Terminal. The experience of recent years is now flowing into the building of shore-based power units at container terminals. These should be completed next year. At the same time, HPA is in the process of converting its entire fleet to alternative propulsion, step by step. That does not affect just its ships. Only a few days ago, HPA received its first electric truck, a Nikola Tre. A total of 25 are planned.

In parallel with companies in the port, shipping lines are urgently working on converting their vessels to more environment-friendly fuels. Methanol seems to be the favoured one at the moment. Some of them are also using biofuels as a temporary solution, while at the same time researching synthetic fuels.

The following pages will help you to discover just how these approaches and solutions are taking shape. I wish you much enjoyment in reading about them. Stay curious!

AXEL MATTERN
CEO Port of Hamburg Marketing

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“Our pilot projects underline that the port is forging ahead”

Senator Michael Westhagemann, Hamburg’s Minister of Economics and Innovations, outlines how the Port of Hamburg aims to become climate-neutral, in an interview with Port of Hamburg Magazine editor Ralf Johanning.

The world political situation is creating uncertainties in global supply chains. These also affect the Port of Hamburg. Does this situation influence the path to a climate-neutral port?

Even now, the world political situation is speeding up specific developments. Among other factors, the need to free ourselves from energy policy dependence on Russia is causing a distinct boost in the tempo for expanding alternative energies. In the short term, many companies in the Port of Hamburg are suffering immensely from higher energy prices. That should not be under-estimated. In the medium term, however, I assume that especially against the background of current developments, our strategy of promoting the build-up of a self-supporting green hydrogen sector at an early stage will pay off.

Where does the Port of Hamburg stand today in the effort to become a climate-neutral port?

Hamburg has already achieved a great deal. For a start, we are the European leader for shore-based power and will soon have tangible connections at all cruise terminals and all essential containership berths. Secondly, Hamburg has systematically expanded its role as Europe’s leading rail port. More than half of all containers bound for the hinterland are transported by rail. Compared to road transport, that saves enormous quantities of CO₂. Thirdly, companies themselves are very active, understanding climate protection as an opportunity for acquiring new customers. One fine example is HHLA, which since 2019 has been operating the world’s first container terminal certified as CO₂-neutral. Yet it is clear that much remains to be done. That applies both to the port’s traditional cargo handling and logistic activities, and to industry. Our goal there is clear: We see decarbonization as an opportunity and wish to create the conditions for new, climate-compatible growth in the port.

You recently described the port as practice-oriented playing field that must change and func-

tion more powerfully as a driver of innovation. Could you explain that in a little more detail?

The port has always been changing and will continue to do so. Even now, we are once again experiencing a process with several upheavals. Central to these are the topics of digitalization, decarbonization and energy. We are trying to support companies based here with the change, and to bring in new, innovative players. This is happening through pilot projects and new settlement of companies and research facilities. With pilot projects, we make it clear that the port is progressing, and introducing new technologies. Just two examples are support for a pilot project with emission-free trucks, and harnessing technologies from quantum computing for optimizing traffic flows.

Creation of a digital testbed in the Port of Hamburg should achieve an additional quantum leap in digital transparency. This will concentrate on combining existing digital networks for public transport and in-

frastructure management with those of private enterprise logistics into a network of networks. Under its DigiTest funding programme, the BMDV – Federal Ministry of Transport and Digital Infrastructure – is contributing 15 million euros.

To boost added value in the port and its immediate

environment, we are primarily concentrating on attracting companies and institutions with a high proportion of research & development. To achieve successful application of new technologies, here we see it as the city-state’s duty to make appropriate space and a suitable environment available to such players. Two sites on which this will be increasingly occurring are the Am Radeland innovation park in Harburg and the port quarter on Grasbrook. Technology companies linked to the port are to be systematically settled there.

Do you sometimes feel that companies are lacking guts?

We cannot accuse companies of lacking courage. In view of present crises and the current volatility of

“We see decarbonization as an opportunity and wish to create the conditions for new, climate-compatible growth in the port.”

Senator Michael Westhagemann,
Hamburg's Minister of Economics,
on tour in the port



© Senatskanzlei Hamburg

the world economy, to invest in new technologies, launch a start-up or build up a new site requires serious willingness to take risks. As the Senate, we must therefore create the conditions so that companies are willing to carry these. This means that we must make available superb infrastructure, invest in initial and in-service training, strengthen research & development, network the worlds of commerce and science, and set the course for such major projects as the Elbe fairway adjustment, the Köhlbrand crossing and redevelopment of the former Moorburg power station site.

The Port of Hamburg is one of Europe's largest single integral industrial zones. Production and logistics services there require an immense amount of energy. Over the coming years, where is this to come from?

Fossil energy's share is still comparatively high. Yet in the next few years, change will occur increasingly fast. To an ever-growing extent, the port will be supplied with energy from renewable sources. We shall be further expanding energy exploitation in areas of the port itself – with wind power and photovoltaics. Yet it is obvious that this will only cover a

comparatively small part of energy needs. In addition, energy – especially from wind power – will fulfil an ever-growing role. Here we profit from our proximity to the large onshore and offshore wind parks on the coast. In addition, however, we shall still have to import other sources of energy. Unlike today, this will be less and less in the form of coal and oil/gas, but hydrogen derivatives by ship or pipeline. We are currently creating the conditions for this.

Can a port alone manage that? Doesn't Hamburg actually need more support from Federal government?

We in Hamburg, especially, are convinced of the merits of the Federal system, and not just for upholding tradition. For a start, ports are a matter for the Federal state concerned and that's quite right. In many cases, namely, we can react more flexibly to developments, and network and coordinate policy for the port with economic policy for the city-state generally, but also with transport, environmental and research policies. In the process, we basically we must ensure acceptable financing of the port. Yet the Port of Hamburg is indisputably of

tremendous supra-regional importance and playing a crucial role for Germany's national economy. A glance at a few figures makes that obvious. While the port generates annual added value for the Metropolitan Region – extending well beyond the state borders – of about 12.4 billion euros, the figure for the whole of Germany is 50.5 billion euros. In the whole of Germany, it secures about 600,000 port-related jobs. Only about eleven percent of those are located in Hamburg. The port naturally also performs a central function for German imports and exports. This can be discerned from the fact that one-third of all container trains and around 13 percent of all freight traffic on the German rail network are bound for the Port of Hamburg or originate there. If one calls to mind this significance and is also aware of the size of future investments – in the Köhlbrand tunnel or shore-based power, for example – then it is clear that support from the Federal government is absolutely appropriate.

So far, we are seeing shore-based power mainly for cruise ships. Would European or even worldwide cooperation between ports do more to achieve the aim than solo efforts?

By using shore-based power during a vessel's lay-time in port, we are certainly reducing its CO₂ emissions, but also atmospheric pollutants. Especially in Hamburg, with the port in the city centre, this is of special importance. We therefore took the first shore power unit into service at the Altona cruise terminal way back in 2016, and are currently building new shore-based power facilities at Steinwerder and Hafencity cruise terminals. We are going even further, however, by extending shore-based power supply to container ships. We shall be making this available in future at the four major container terminals. We are receiving financial support for this from the Federal government, which will bear around 50 percent of investment costs. Shipping is subject to international regulations. A purely 'island solution' for Hamburg is not in our interest and will not contribute to widespread use of alternative energy supply systems. Instead, we need a level playing field in Europe. For this, uniform rules are required. No disadvantages should arise for ports that have already applied measures or are now doing so, while others are less ambitious in pursuing climate protection. We therefore generally welcome the European Commission's Fit-for-55 package and the related obligation to use shore-based power. We are cooperating closely as partners with Europe's major ports. For instance, we are exchanging knowhow with the port and the city administration in Rotterdam, while intensifying contacts with Antwerp, and Montreal too. Since we are acting internationally,

we can profit from the experience of colleagues in the Port of Los Angeles, and are also keeping an eye on Asian ports.

Green hydrogen belongs in your opinion to the energy mix for the future. How far then are preparations for a hydrogen hub in Hamburg flourishing?

We already set the political framework with the North German Hydrogen Strategy in 2019, and are now pursuing the common vision of building up a self-sufficient green hydrogen sector by 2035. To really set the build-up of a green hydrogen sector in motion, last year we extended our Renewable Energy Hamburg Cluster with the hydrogen sector. For many people, the incipient Port of Hamburg project involving the scalable 100 MW Electrolyzer symbolizes the future green hydrogen sector. This is related to further schemes: HHWIN, or creation of HHWIN – a Hamburg Hydrogen Industry Network, applications in metallurgy, the port industry and aviation. With 30 percent of the public funding, Hamburg will make a major contribution to these pioneering projects that are currently running as part of a comprehensive EU program of European 'matchmaking' with other projects. An additional lighthouse project is the innovation/technology centre 'Hydrogen technologies for mobility applications', or ITZ Nord, that is planned for Hamburg, Bremen and Stade, and will be backed by the Federal government – the Federal Ministry of Transport and Digital Infrastructure – with funds of up to 70 million euros. With the hydrogen import strategy published in March, my ministry has laid a

“We therefore generally welcome the European Commission's Fit-for-55 package.”

further milestone towards meeting the needs of users on the spot with imports, as well as addressing national and European requirements as a 'Green Hydrogen Hub Europe' and transit centre. In addition, we shall be relying more on international alliances with regions whence hydrogen or its derivatives can be imported into Germany.

Companies' own initiatives could also play an important part. Are you aware of any in the Port of Hamburg that are actively working on the energy mix?

Many companies are extremely active here. More and more logistics undertakings are pursuing a decarbonization strategy to attract clients wishing to gain customers that wish to offer end-consumers products with a CO₂-neutral supply chain. I have already mentioned CTA as the first certified climate-neutral container handling facility. The company relies there on a combination of electrification so as to use green power, and CO₂ compensation for the remaining emissions. Wherever this is technically and commercially feasible, companies are also producing power themselves with photovoltaics



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Wind power units supply part of the Port of Hamburg's power

and to a substantial extent, also with wind power. For instance, some of Hamburg's largest and most powerful wind power units stand in the port, directly supplying energy to industrial and cargo-handling companies

We are currently examining to what extent additional wind energy units can be built in the port, without competing with port usage; new Federal legislation such as the 'wind on land' law will also play an important part here.

Is there any support in political circles in Hamburg for such initiatives?

The Free and Hanseatic City of Hamburg has among other things very strongly supported the erection within the port of many wind power units. The aim is for the output of existing wind parks to be doubled in the next few years. In what is known as sectoral coupling, increased use of green power in industrial companies is being supported with funding programs by the city.

Hamburg is continuing to support the establishment of a self-supporting hydrogen sector. Here the eight Hamburg projects forming part of the EU's IP-CEI – 'Important Projects of Common European Interest' program need to be mentioned. The city is supporting these with 223 million euros of state funding. Federal government will contribute a fur-

ther 520 million euros. Altogether, we are speaking here of a total investment of around two billion euros for projects predominantly located in the port. With this, we are laying an additional, essential foundation stone for the transformation to a future hydrogen sector.

The port development plan will shortly be completed. Can you reveal for us what role conversion to a climate-neutral port will play?

It is clear even now that the aims of climate protection and sustainability will be a central leitmotiv of the new port development plan. Anything else would be to deny reality. Yet we are not attempting simply to pursue a trend with the plan. Instead, we are examining how we can exploit the opportunities arising from energy transition and the transformation of the climate for the port. We don't wish simply to react to the problems of our times, but to look ahead and help shape the future. The topic of hydrogen offers one good example. The port contains strong companies in the oil industry and is still an important hub for handling coal. By going for hydrogen as an energy source energetically and at an early stage, we are supporting transformation of these sectors to ecological sustainability. The aim is not just to secure existing companies and jobs, but also to create fresh growth potential. ■

Hamburg's green fleet

Hamburg's municipal fleet, one of Hamburg Port Authority's subsidiaries, is making great strides towards sustainable shipping.

Under the motto 'Hamburg's Green Fleet', since 2017 Hamburg has combined all municipal craft under a single fleet management and has moreover set itself the target of becoming the top player for alternative, sustainable ship operation.

Hamburg's municipal fleet – or Grüne Flotte Hamburg – comprises about 45 craft. Thanks to this consolidated management, not only can maintenance, repair and acquisition be standardized, but any chartering can be cost-efficient. Newbuildings, rebuildings and maintenance are self-financing. Given an environmental strategy aiming for clean, green shipping, one especially relevant element of fleet management here is fleet modernization.

Accounting for less than one percent of atmospheric pollutant emissions in Hamburg, the fleet's direct impact may be small, yet it can function significantly as a pioneer of change.

As one of Hamburg Port Authority's subsidiaries with 150 staff, the fleet not only offers the essential nautical experience, but is an independent candidate for innovative investments with no public subsidy involved.

Combining all municipal craft as one entity makes a uniform environmental strategy feasible for the first time. This embraces five fields of action, or five pillars forming the basis for fleet management that will make shipping here modern and fit for the future,





namely: Low-emission fuels, exhaust after-treatment systems for new vessels, retrofit solutions, innovative propulsion technologies and energy-efficient ship operation.

SUSTAINABLE RETROFITS OR NEWBUILDINGS

Converting and modernizing existing craft sustainably can already reduce emissions of nitrogen particles and nitrogen oxide by over 90 percent. Fitting systems for subsequent exhaust gas treatment or even installing hybrid propulsion can form a substantial part of a green environment strategy.

Costing about 150,000 euros per ship, these measures are not inexpensive. Depending on ship type, however, engine-room size is a more serious challenge. Re-equipment measures often prove irrelevant, however, with the engine-room simply not offering sufficient space for new motors or exhaust treatment filters.

For wholesale transition to a green fleet, in the long term new acquisitions will prove essential too. The fleet currently envisages having one or two of these per year. In 2021, for example, the two firefighting craft 'Dresden' and 'Prag', with hybrid plug-in propulsion, were taken into service. The third hybrid

boat is the 'Chicago', a silt plough replacing the old leveller 'Otto Stockhausen'. With her hybrid-battery propulsion, the 'Chicago' is not only more efficient but also more low-emission. All newbuildings are basically also fitted with the latest technology for treating exhaust gases. This functions through a combination of fine particle filters and nitrogen acid catalytic converters. So even if electric operation is entirely or partly impossible, pollutant emission can be substantially reduced.

This technology is also being deployed for the river police: Three new police launches and a pilot transfer boat are using the exhaust gas treatment filter.

HAMBURG'S GREEN FLEET AS A TESTBED FOR INNOVATION

Apart from the added value that it generates for the City of Hamburg and its port, the fleet always sees itself as a general testbed and practical test laboratory for new technologies and developments. The range extends from developing new prototypes to involvement in developing new climate-neutral fuels as well as testing these in practice. Way beyond fields of application within the Port of Hamburg, the Grüne Flotte Hamburg's environment strategy is also of importance for a more sustainable and low-emission future for shipping.

Hamburg's green fleet

Creation of the fleet goes back to a Senate resolution in April 2016. The Senate decided to amalgamate the hitherto separate HPA, fire brigade, river police and LSBG – the state road, bridge and waterway administration – fleets under a single municipal fleet management – headed by HPA. After a test stage, the new, independent fleet management started operating on 1 July 2017. To facilitate as free and entrepreneurial trading as possible, and to ensure absolute transparency, at the same time fleet management was given a German-style corporate identity as an HPA subsidiary.

Hamburg's municipal fleet currently comprises around 50 vessels. The majority of these are inland waterway craft with widely differing functions –

such as firefighting and police vessels via survey craft to pilot transfer boats, transport craft and ice-breakers. In addition, the fleet operates dredging equipment, a barge suction station and 40 barges. The team numbers about 150 employees. The highest proportion of these are crew members, or ship helmsmen/women and shipboard mechanics. To keep the Port of Hamburg running, these staff are on the job 24/7 for 365 days a year. A small, efficient team looks after movements, maintenance management, newbuilding projects and administration.

Source: <https://www.hamburg-port-authority.de/de/tochtergesellschaften/flotte-hamburg/unser-unternehmen>



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Firefighting boats 'Dresden' and 'Prag' in service since 2021

The sister vessels 'Dresden' and 'Prag' are more powerful than their predecessors, and the first two craft in Grüne Flotte Hamburg's new series featuring the names of Hamburg's twin cities.

These are also the first two vessels in the Port of Hamburg with plug-in hybrid propulsion enabling them to run completely emission-free for up to two hours. As multifunctional extinguisher boats, they can be deployed, not only on firefighting and rescue duties, but also as bridge survey ships for

HPA – Hamburg Port Authority) or LSBG – the state roads, bridges and waterway administration.

Length: 35.30 metres

Breadth: 7.80 metres

Draft: 1.50 metres

Water jets: Range of up to 70 metres – height – and 150 metres – length – per hour, requiring up to 2,500 cubic metres for firefighting



Transfer to more low-emission fuels has already significantly reduced the fleet's exhaust emissions. Even for those craft for which conversion to – part – electric propulsion is not feasible, use of a GTL – Gas-to-Liquid – process and HVO – Hydrotreated Vegetable Oil can already lead to a relevant reduction in PM emissions and others containing nitrogen oxide. This makes these fuels considerably more sustainable than use of diesel propulsion.

HYDROGEN FOR THE FUTURE

To develop new approaches to propulsion, the fleet is joining various development projects and scientific alliances.

A meanwhile indispensable field for development here is the use of hydrogen. In different variants, this can be used as a propulsion fuel. It can be used as a fuel for operating fuel cells. This is among other things the idea behind the design for a launch with fuel-cell propulsion. The vessel will be electrically propelled. The required electrical energy will be generated by transformation of hydrogen in a fuel cell, making operations almost one hundred percent emission-free. Hydrogen can also be directly harnessed in internal combustion engines. Here again, Flotte Hamburg is pursuing potential solutions.

Quick moves towards reducing greenhouse gases will be possible, if hydrogen technology is actually used successfully on existing vessels. Grüne Flotte Hamburg is pursuing this course with its planned use of synthetic PTL – Power to Liquid fuel that is based on green hydrogen while being compatible with existing internal combustion engines.

In spring 2022 the fleet embarked on first-time cooperation with Hamburg Technical University to further develop its environmental approach as a zero-emission strategy. A first step in this cooperative project is a kind of status analysis. In order to undertake suitable modifications and adaptations, research is in progress into which fuel type suits which types of vessel and its technical parameters.

ENERGY-EFFICIENT SHIP OPERATION

The last pillar of environmental strategy is based on a simple principle: Not only the fuel used in a vessel is relevant, but also how it is operated. Antonia Kuntze, head of fleet service at Grüne Flotte Hamburg, stresses that "Efficient ship operation also forms part of our strategy. With careful ship operation, between three and seven percent of emissions per tour can be saved." Hence the digital consumption indicators on the bridge, as well as crew training. ■

Birte Hirsch



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Plugging in to eliminate emissions

The Port of Hamburg aims to massively expand use of shore-based power. That is a major step towards sustainable reduction of emissions. .

A mass of emissions have occurred during ships' lay times because they have had to leave their diesel generators running. Shore-based power puts a stop to that. This involves linking the ship to a shore power unit on the quay. The vessel can then tap into power from the public network instead of producing it on board. Shipboard generators can be switched off. That reduces the emission of air pollutants such as nitrogen and sulphur oxide, fine particles and CO₂. One positive side-effect is less of a din.

For Nikolay Sudarev, Deputy Project Manager Shore Power for HPA – Hamburg Port Authority, the beneficial effects on air quality and hence for the health of the urban population are a decisive argument for using shore power. The results are better than those for consumption of alternative fuels by internal combustion engines. "Looking at their respective environmental records, shore power is

superior to LNG, synthetic fuels or biofuels. In burning these, pollutants continue to be emitted. By contrast, any shore power derived from renewable sources is virtually emission-free. Especially for ports close to cities, this technology is of special importance for people's health and wellbeing."

SHORE POWER MADE IN ALTONA

HPA – Hamburg Port Authority (HPA) Cruise Center Altona installed what was then Europe's first shore-based power facility for cruise ships back in 2016. This has been in regular operation since 2018. With almost everything functioning automatically, only a few minutes elapse before power flows from shore to ship – and it's derived exclusively from renewable sources. The unit is used primarily by the 'Al-DAso!'. Supply to additional ships has been hampered by the pandemic. Numerous shipping lines have postponed planned conversions. Yet Sudarev remains confident that shipping companies will

again be putting more effort into addressing the topics of environmental compatibility and sustainability. The first new planned connection and integration tests are a good indication of this.

In 2022 the 'AIDAsol' took shore power fifteen times. Additional calls with shore supply are planned by year-end. The 'Europa 2' has also regularly ordered supplies of shore power. Sudarev estimates that this year the facility will have enabled approximately 500 tons of CO₂ to be eliminated.

HAMBURG'S PIONEER ROLE FOR THE WHOLE OF EUROPE

In 2019 the government of Hamburg decided to expand the Port of Hamburg's shore power facilities. Construction of these is planned at Steinwerder and Hafencity cruise terminals. In addition, seven connection points are to be built for containerships – three at CTB – Container Terminal Burchardkai, three at CTH – Eurogate Container Terminal Hamburg, and one at CTT – Container Terminal Tollerort. In 2024 the state-of-the-art CTA – Container Terminal Altenwerder is also to be given a shore power facility. This will profit from experience with the first years in operation of the larger facilities.

The cruise terminal shore power point in Steinwerder should be completed in 2023, followed by

the one at Hafencity Terminal in 2024. Test operation at the container terminals and in Steinwerder should commence next year. From 2023, Hamburg will therefore be the first port in Europe to offer shore power supply to both cruise ships and large containerships. "This is an important step towards decarbonizing the port, putting Hamburg many years ahead of the EU's scheduled regulation to reduce CO₂ emissions in comparison with 1990 by at least 55 percent by 2030," explains HPA's CEO Friedrich Stuhmann.

CONTAINERSHIPS USING SOCKETS

Terminals will each be equipped with a connection point from the public network, a transformer station, and the appropriate ship supply units, or even in front of, the quay wall. These facilities will be so constructed as to enable parallel supply to two vessels at each terminal. HPA analyses indicate that this is currently the optimal technical solution, which can be extended to meet growing demand. The port administration has ascertained in advance from Stromnetz Hamburg and other parties involved which cable, ducts and technical equipment will be required for ability to supply the maximum required performance and to guarantee reliable delivery.





Shore power reaches the vessel via a mobile unit

© Siemens

With the provision of shore supply infrastructure being extremely capital-intensive in any case – HPA is investing around 95 million euros in the building projects – use of a generally applicable system makes sense in the long term. To facilitate access to this for as many users as possible, equipment is being built to international standards. HPA is cooperating closely there with other European ports, while also trying to prompt the relevant shipping companies to convert their fleets. While conversion may involve heavy costs, it is also an investment in the environment and the future. The more ports offer these facilities and the more intensively shipping lines use them, the quicker this will pay off.

STARTING SIGNAL FOR THE INTEGRATION STAGE

Unlike everyday electricity consumption, integrating a ship involves not simply plugging it in, but a lengthy process. If power cuts are to be avoided, the first use of shore power, which often represents virgin territory for the technical experts on board, requires extremely cautious handling. To integrate a ship, several port calls are frequently required. Yet since ships mostly only remain alongside for a short time, this can be an obstacle. Since the units for container-ships are novel and so far of a unique size and type,

their forthcoming integration will be all the more challenging. Yet the good news is that once integration is achieved and a vessel has been successfully certified, shore power can be tapped at every subsequent call relatively rapidly and free of problems. In parallel with building the units, HPA is canvassing for ships wanting to achieve integration as test candidates. Further discussions are currently in progress with such major European players as CMA-CGM and Hapag-Lloyd. Other lines to have expressed interest include several from Asia, Cosco, HMM, ONE and OOCL.

A EUROPEAN SOLUTION

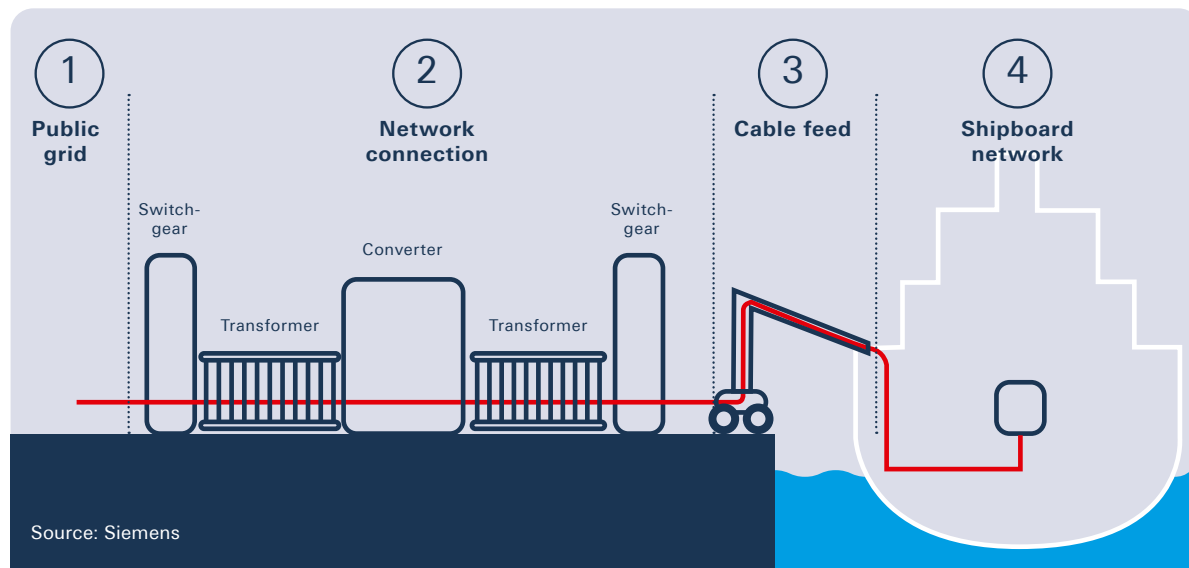
HPA's plans for shore power in the Port of Hamburg envisage equipping that all significant berths by 2030 with infrastructure to meet requirements and achieving CO₂-neutrality as quickly as possible. Stuhmann is convinced that even if shore power involves challenges, it is very clearly the obvious way of making a contribution to greater sustainability and climate neutrality.

To achieve the maximum possible environmental impact, the offer of shore power must be further extended in as many ports as possible. In Rotterdam and Antwerp-Zeebrugge, in particular, extremely strong potential exists for saving CO₂ and avoiding

pollutants. With support from Dr Peter Tschentscher, First Mayor of Hamburg, and his office, the Port of Hamburg plans an agreement with the Northern Range ports on speeding up equipment for shore

power and boosting its use. To achieve a genuine breakthrough, however, it will be essential for the shipping industry, port management and politicians to close ranks. ■ Saskia Haßkamp (sh)

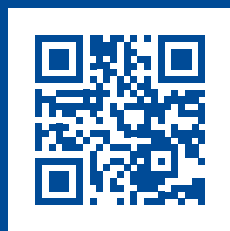
Construction of a shore power unit



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Adding biofuel is among the first steps towards more sustainable mobility



MSC Germany focuses on Sustainable Supply Chains

Decarbonisation is one of the shipping industry's greatest challenges. Climate action is a global imperative and MSC Mediterranean Shipping Company is committed to playing its part in creating a sustainable future towards its target of achieving net zero decarbonisation by 2050.

As a leading company whose business both impacts and is impacted by the climate, MSC has a key role to play in decarbonising logistics and operates one of the world's most modern, technologically advanced fleets. MSC has improved the energy efficiency of ocean shipping in recent decades and reduced CO₂ emissions per container carried. The company continues to deploy solutions to keep on enhancing fleet efficiency, including energy-saving retrofits, air lubrication technology and advanced data-driven systems. In addition, MSC is engaging in collaborative initiatives as well as investing in research, trials and pilots that are often conducted in partnership with others to support the production and scaling of low- and zero-carbon fuels and technologies.

FUELING THE FUTURE

One of the recently adopted elements of MSC's energy mix has been blended biofuel, which is currently acting as a transitional option while we wait for even lower-carbon fuels to become available at scale.

Through MSC Biofuel Solution, the company offers customers the opportunity to decarbonise their supply chains and achieve their climate targets, delivering CO₂ savings by replacing conventional fossil-based fuel with responsibly-sourced, second-generation biofuel derived from sources such as used cooking oil. MSC Germany customers can choose the MSC Biofuel Solution regardless of the cargo's ports of origin or destination and will receive an MSC-issued Retire-



MSC also focuses on sustainability in the development of networks in hinterland traffic

ment Certificate that can be used for reporting on the carbon footprint of their supply chain.

MSC has also prepared a portion of its fleet to be capable of dual fuel (liquefied natural gas – LNG) operations. As a low-carbon fuel available today, LNG offers opportunities to transition to sustainable energy sources, and MSC is working with partners to develop future supply chains for bio- and synthetic LNG.

SUSTAINABLE HINTERLAND APPROACH

MSC also considers sustainability when developing hinterland transport networks. In planning individual inland solutions for customers MSC Germany's intermodal experts can tap into a large national network of around 70 commercial rail and inland waterway connections, plus 11 block-train services, linking inland terminals with German seaports in Bremerhaven and Hamburg, as well as Rotterdam and Antwerp and Trieste on the Adriatic. The company is cooperating with certified partners in the intermodal field, for instance with train operating companies that fuel their electric locomotives with CO₂-neutral power.

PARTNERSHIPS

It is not only innovative new technology that is making worldwide logistics chains more sustainable. MSC Germany has long practiced flexible and efficient process control, coordinating with its partners in North Range ports and terminals to precisely match voyage speed to berth availability. Apart from avoidance of lay times, it has been adding benefits. If ships operate at half speed, this approach reduces fuel consumption and emissions, a win-win for customers and the environment.

MSC builds and maintains strong relationships with public and private stakeholders, industry associa-

tions, governments, non-governmental organisations and other relevant business partners in order to help ensure that climate change action achieves comprehensive momentum.

“For us at MSC Germany, collaborating with our stakeholders in search of solutions to address the global challenges of today is of immense importance. Employing innovative technologies and alternative energy supplies requires collective action and proactive partnerships. Together we can make a substantial contribution towards reducing CO₂ emissions in global supply chains.” stresses Nils Kahn, Managing Director of MSC Germany. ■ (MSC/Red)

MSC is committed to ocean protection

At the UN Ocean Conference at the end of June 2022, MSC Mediterranean Shipping Company signed the UN Global Compact Sustainable Ocean Principles. These are based on the ten principles of the UN Global Compact on human rights, labour norms, environmental protection and anti-corruption. In utilizing the seas for transport, the company undertakes to act sustainably and to preserve the health of the oceans.

For many years, MSC has committed itself worldwide to the protection of the oceans and their inhabitants. For instance, it is the first significant shipping line to have moved its service route along the West coast of Greece at the beginning of the year to avoid ship collisions with sperm whales which, with a population of no more than 200-300 in the Eastern Mediterranean, are categorised as seriously endangered.

In use by Deutsche Post DHL,
among others: Biofuel mixtures
instead of the customary
heavy oil



© Hapag-Lloyd

Decarbonization with used cooking oil

Hapag-Lloyd aims for climate-neutral operation of its ships by 2045. With other industry partners, the Hamburg shipping line is researching synthetic fuels.

Hapag-Lloyd has been testing modern biofuels since 2020 and now offers a reduced-CO₂ transport solution that uses biofuel mixtures instead of customary heavy oil. Only just recently, the Hamburg shipping company signed an agreement on the use of such biofuels with DHL Global Forwarding, the air/sea-freight specialists in Deutsche Post's DHL Group. As a first step, Hapag-Lloyd will be using biofuels for 18,000 TEU of the sea freight volume shipping for DHL. That will save

14,000 tons of CO₂ emissions. "We have meanwhile reached similar agreements with a few selected customers and are in discussion with other interested clients," says Janin Aden, Hapag-Lloyd's Senior Director Sustainability.

Hapag-Lloyd has so far mainly accessed cooking oils, but also fuels based on food waste. The use of fuels based on other waste products, e.g. forms of

waste from the timber industry, is also conceivable. However, it is not yet possible to operate the entire fleet of 248 containerships on these. Since “the availability of biofuel is limited, with other carriers and industries also keen to exploit this more climate-friendly resource,” adds Aden. In the medium term, therefore, synthetic climate-neutral fuels will need to be developed so as to facilitate decarbonization of shipping as a whole. “We are in discussion on this with our fuel suppliers and researching along with other partners in the industry,” states Aden.

The moves towards sustainability being undertaken by this long-established shipping line are comprehensive. The company aims for climate-neutral operation of its vessels by 2045. Hapag-Lloyd has already ordered advanced 23,500 plus-TEU vessels with dual-fuel propulsion and is applying efficiency measures to its existing fleet. Continuous monitoring of its ship operation data is enabling the company to spot potentials for improving the fleet load-factor, as well as optimizing use of existing space on board. Additional software solutions have enabled discharge processes, and therefore energy consumption, to be improved.

“In addition, operative measures in deploying the ships have facilitated saving of fuel and therefore emissions,” adds the sustainability manager. Among these are optimization of hull shape, propellers and rudders, as well as hull coatings to reduce or eliminate fouling and reduce consumption of the energy needed for cleaning. Engines are constantly being further improved, while the company aims to make efficient use of shore power as well as waste heat and shipboard energy. “In addition, we are working closely with worldwide research centres, and are active in international bodies like the World Shipping Council, to make further progress on regulatory and economic conditions to further promote the maritime energy transformation,” she explains.

As at all Hapag-Lloyd’s worldwide locations, for Hamburg too the company is actively devising and applying individual packages of measures to decarbonize office activities by end-2023. ■ (njo)



© Hapag-Lloyd



The methanol ferry 'Stena Germanica' has set industry standards. The project is serving internally as the basis for long-term transformation of the fleet



© Stena Line

Setting course for sustainable shipping

On many of its ships, ferry shipping company Stena Line uses the Stena Fuel Pilot, which helps to improve voyage routing – and hence to save up to five percent of fuel and the related emissions.

Stena Line is constantly developing new intermodal solutions for freight, and combines transport by rail, road and sea. The sustainability strategy of this European ferry group with a fleet of 38 vessels and its German site in Hamburg is based on a holistic approach. Organization of efficient transport chains is the prime consideration for its pre- and post-ferry transport operations.

The group offers accompanied and unaccompanied shipments, project cargo, intermodal services and also

direct train services on the Rostock–Trelleborg route. In port operation, Stena Line offers customer incentives with such projects as Green Priority, whereby in specific ports e-trucks receive preferential access to the ferry. Green power is used in all Stena Line's ports and terminals. In seven of the latter, 14 ferries of the fleet use shore power, with an upward tendency .

“At Stena Line we are convinced that the most sustainable energy is not consumed at all,” stresses

Mikko Juelich, Trade Director and CEO of Stena Line. The company is therefore continually modernizing its fleet and investing in energy-efficient ships and projects. For instance, Stena Line is equipping many of its ships with the Stena Fuel Pilot that with AI-based technology improves voyage routing. "This saves us between two and five percent of fuel, plus the corresponding emissions," he adds

Since 2019 Stena Line has been putting new ships of the E-Flexer class into service in various trades. These are notable for optimized engines and hull designs, as well as ample cargo capacity. Juelich: "All E-Flexers are gas-ready, and can therefore readily be converted to the use of alternative fuels."

In addition, the methanol ferry 'Stena Germanica' has set fresh industry standards. As part of a pilot project, she has already been successfully refuelled with recycled methanol from steel production, which once again distinctly improved the fuel's carbon footprint. This project will also serve internally for the long-term reconstruction of the fleet. Since methanol causes practical-

ly no sulphur or particle emissions, and 60 percent less nitrogen emissions than traditional marine fuel. "In theory, all the ferries in Stena Line's fleet can be converted to methanol operation," says the CEO.

Yet conversion will require substantial investments. To boost the transition to sustainable shipping, Stena Line is therefore searching for the best possible option for every route and every vessel. Yet in view of current political and regulatory developments, we are convinced that where fuels are concerned, the transformation will again gather momentum, with such alternatives as methanol attracting increased interest in the near future," adds Juelich.

Stena Line is also keeping an eye on the most recent developments in technology in the maritime sector. One example is the ferry 'Stena Jutlandica', with a one-megawatt battery on board, that is used during port manoeuvring in Gothenburg. With continuous further development of battery capacity, the aim is to put the first fully emission-free, battery-powered ferry into service in 2030. ■ (njo)



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Climate-neutral with green fuels

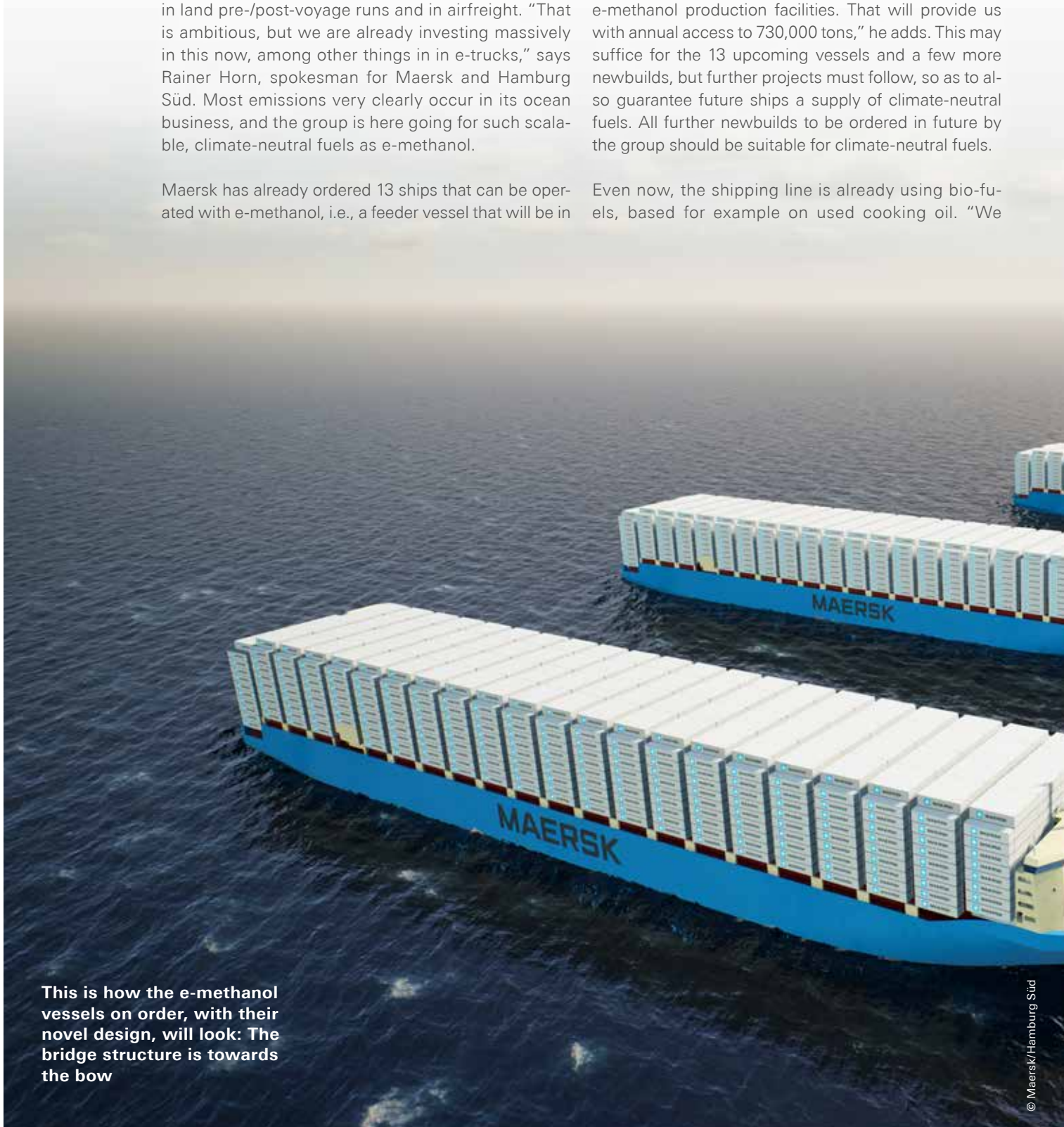
For Maersk, e-methanol is the best and most rapidly feasible alternative fuel. The energy required for producing this is solar and wind-based.

Maersk shipping line, to which Hamburg Süd also belongs, has set itself the task of being completely climate-neutral by 2040 – both in shipping and also in land pre-/post-voyage runs and in airfreight. “That is ambitious, but we are already investing massively in this now, among other things in e-trucks,” says Rainer Horn, spokesman for Maersk and Hamburg Süd. Most emissions very clearly occur in its ocean business, and the group is here going for such scalable, climate-neutral fuels as e-methanol.

Maersk has already ordered 13 ships that can be operated with e-methanol, i.e., a feeder vessel that will be in

operation from 2023, plus twelve 16,000-TEU ships that will enter service from 2024. “Along with six partners, we have decided to build the corresponding e-methanol production facilities. That will provide us with annual access to 730,000 tons,” he adds. This may suffice for the 13 upcoming vessels and a few more newbuilds, but further projects must follow, so as to also guarantee future ships a supply of climate-neutral fuels. All further newbuilds to be ordered in future by the group should be suitable for climate-neutral fuels.

Even now, the shipping line is already using bio-fuels, based for example on used cooking oil. “We



This is how the e-methanol vessels on order, with their novel design, will look: The bridge structure is towards the bow

have a rapidly growing number of customers, often very large – both for Maersk and also Hamburg Süd and Sealand – that against a low surcharge are having their cargo transported using our additional EcoDelivery product,” states Horn. In the process, a sufficient quantity of green fuel is bunkered into a Maersk vessel in the network. This corresponds to the fuel consumption of the customer’s containers. In liner shipping, that can readily be calculated. At sea, transport of these containers is therefore climate-neutral. In addition, the group is working on being able to be climate-neutral when offering the remaining elements of the supply chain.

One disadvantage is that the biofuels from used cooking oil are not scalable, all the more so since Maersk does not purchase these from food sources, but from waste flows. “We currently regard e-methanol as the best and most rapidly feasible al-

ternative to the EcoDelivery fuels,” explains the spokesman. The energy required for production, and here primarily for electrolysis, is derived from solar and wind power. Ammonia and other synthetic fuels are alternatives already being intensively researched by the company along with partners. Already a member of the SteelZero-Initiative, Maersk aims to be a role model in sourcing climate-neutral steel for ships and containers.

Maersk has worked out a comprehensive ESG agenda for all its actions. This includes site analyses, firm targets and schedules. Along with ‘E’ for Environment, the priority areas S-Social and G-Governance are embedded here. The social area includes diversity, fairness and inclusion, while along with human and labour rights, governance – or corporate management – also covers sustainable purchasing, for example. ■ (njo)



No more plastic waste on board

CMA CGM group has moreover decided to be climate-neutral by 2050. Among steps to be taken, green fuels should help in drastically reducing greenhouse gas emissions.

CMA CGM group has committed itself to environmental protection and the conservation of biological diversity. Since June 2022, the shipping line no longer has plastic waste on board its vessels. With this decision, CMA CGM wants to prevent this kind of waste being exported to destinations that are not capable of sorting, recycling or reclaiming it. In so doing, the group has resolved to grasp practical measures, where it has the operative opportunity to do so, aligning itself with the urgent demands of some non-governmental organisations – NGOs.

Furthermore, CMA CGM is carrying out a range of local environmental protection initiatives aligned to the group's commitment to be climate-neutral by 2050. As early as November 2017, CMA CGM took the decision to build a fleet of natural gas powered units, in order to reduce the group's emissions. LNG is currently the most advanced available and effective technology for conserving air quality and making a worthwhile first step towards decarbonisation. The group currently has a fleet of 27 ships with dual-fuel LNG propulsion that should grow to 44 by 2024.



The 'Antoine de Saint Exupery' is the flagship of French shipping line CMA CGM.

CMA CGM is also supporting efforts towards the development of production and distribution of future-oriented renewable energies. The alternative energies of bio-methane, synthetic methane and e-methane are already compatible with the LNG operated fleet and will help to almost eradicate greenhouse gas emissions. Parallel to this, the group is investing in green fuels of the second generation that are produced from used cooking oils – UCOME. This should reduce greenhouse gas emissions between reclamation and combustion by 85 percent. In 2019, CMA CGM announced that its ships would no longer sail on the Northern Sea routes, i.e. along the coast of Siberia, in order to protect the unique, but fragile Arctic eco-system.

Moreover the shipping line has started the 'My Daily Impact' programme, an internal commitment platform advising staff how they can reduce their CO₂ footprint through their daily actions. For example, there is advice on reducing travel with motorized vehicles, via deleting emails and unused data from

servers to reducing digital environmental pollution and reducing use of plastic. During a pre-launch in November for 400 pilot users in 52 different countries, within four months 'My Daily Impact' already achieved a saving of in excess of 14 tons of CO₂ equivalent, or put more simply, the equivalent of 70 round-trips by car between Marseille and Barcelona.

To mark Earth Day on 22 April, worldwide several hundred group staff took part in initiatives to collect waste from beaches in Vietnam and to reforestation of specific areas in South Korea. Moreover in 2021, CMA CGM started a global reforestation plan, planting 110,000 trees – one for each staff member in the group – in 12 countries. The Reef Recovery Project is a comprehensive regeneration program for coral reefs that the shipping line started in 2020 at the Great Barrier Reef off Australia's coastline. This year, the group has announced a partnership with Woods Hole Oceanographic Institution to assist protecting whales and dolphins off the coast of the United States. ■ (njo)

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**HHLA's rail subsidiary
Metrans has itself disco-
vered green power**

Rail going Green

More and more rail operators are marketing services that use green power. Simultaneously, rail is finding more and more takers.

Rail is the most environment-friendly carrier by a wide margin. Per ton and kilometre transported, rail produces only about one-quarter of a truck's CO₂. Rail-freight services accordingly play a key role in achieving climate goals. Offering more and more products involving green power, many rail operators are convinced of this.

The latest example shows that shipping lines too are reacting. For instance, the Japanese shipping company ONE just recently expanded its hinterland range. This now offers shipments for Basle or Dortmund from Hamburg or Bremerhaven. The line has opted for TFG Transfracht as partner. Striving for 'Green Logistics', it primarily offers the main run by rail. Compared





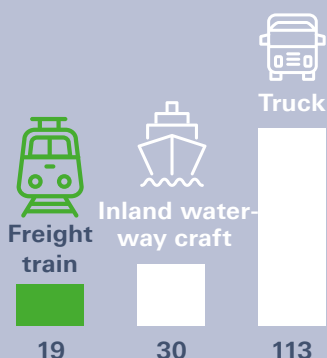
to truck transport, this cuts out around 80 percent of CO₂ emissions. Under the product name TFGeco, with its trains TFG completely covers the power requirement for rail transport with renewable energies. The company aims to contribute towards sustainable environment protection with this. With TFGeco train and TFGeco truck, TFG Transfracht sees itself as well positioned for climate-friendly shipments on intermodal services.

Metrans is pursuing a similar course. This HHLA rail subsidiary has also started to switch to green power. In parallel, Metrans with its 'HHLA Pure' fully compensates for container emissions of containers to be transported on these services. Last year, that involved

912,000 TEU – standard containers – for destinations to and from Hamburg, Bremerhaven and Koper, for which more than 45,000 tons of CO₂ were offset by climate protection measures to the certified gold standard. For the 'last mile', the company has taken Hungary's first electric truck into service in Budapest. Wherever overhead power lines are lacking, for years now, hybrid locomotives have been deployed for shunting. These steps by Metrans are part of the entire HHLA Group's drive for climate-neutral operation by 2040.

TX Logistik is also going for eco-power. In Germany, the company claims to be operating 100 percent with certified green power. Two-thirds of this is gained

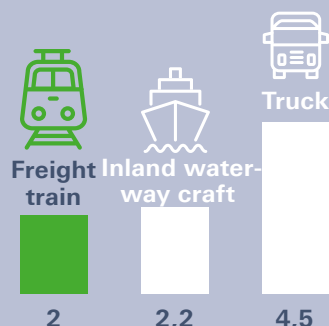
Rail transport saves **80% CO₂** in comparison with road transport



Greenhouse gas – CO₂ - emissions in grams per ton-kilometre – tkm – in Germany

Source: Survey by Infras, Pro-Rail Alliance – Germany 2019

Rail also causes less than **50% of the external costs¹** of road traffic



¹ External costs in euros per ton-kilometre – tkm – in Germany – Ensuing costs caused by freight traffic but not borne by carriers
Covered here are preliminary and subsequent processes, incl. accidents, noise, nature/landscape, climate, atmospheric pollutants



© TX Logistik / Johannes Thorwerth

TX Logistik uses green power for its trains

from hydro-electric power. Equal parts of the remainder are derived from wind and solar energy. Neither climate-harmful CO₂ nor radioactive waste occur in generating this. To keep energy consumption as low as possible for shipments, FS Italiene's Mercitalia uses solely state-of-the-art locomotives. The drive units themselves generate power by recovering part of the energy freed during braking and converting this into electricity. In recent years, the proportion of energy recovered by TX Logistik has risen continuously, now standing at around 16 percent.

CONTAINER LOGISTICS FOR EXTERNAL CUSTOMERS

Similarly, rail is of constantly growing interest for shippers. Demand for ecological/sustainable shipments among forwarders and shippers in trade and industry is rising correspondingly. In launching its wholly-owned subsidiary Boxx Intermodal Logistics, Warsteiner Group is pursuing a new course, now opening up its intermodal services to external customers too. "Our focus is on boosting ecological/sustainable shipments and making services for our customers more professional. It is important that what we offer is not confined to the drinks sector, but applies to all freight that can be containerized," explains Daniel Küster, Manager Supply Chain Management at Warsteiner Brewery and CEO of Boxx Intermodal

Logistics. 'Door-2-Door' delivery using an intermodal transport chain offers external clients too an all-round service with highly reliable delivery and supply. Rail-borne freight transport is an ecologically more sustainable alternative to road transport. In cooperation with WLE – Westphalian State Railway – via its own private siding Warsteiner Brewery serves Munich, Verona and Hamburg as destinations for block trains. In direct cooperation with the Port of Hamburg, Warsteiner ships its products all over the world via Hamburg.

DIGITALIZATION FOR INTERMODAL TRANSPORT

Intermodal transport is attracting ever-growing attention among shippers, shipping lines, logistics providers and forwarders. The advantage of them is that, whether accompanied or unaccompanied, in the main only the pre- and post-carriage sections are done by truck. The long one is done by rail. Where this is a good fit, part of the route can be covered by ferry. This leads to a considerably lower volume of emissions compared to purely road transport. To enable users to find their connections more easily, digital platforms have been set up.

railMybox only started in May. With a two-stage process for minimizing CO₂ emissions, this Cloud-based

all-in-one platform can satisfy the demand for sustainable container shipments. Climate-neutral rail services using 100 percent green power can be coupled with last-mile transport by partner companies operating sustainable trucks. Against a fee, CO₂ drops to nil, fully compensating for all emissions. Not the least impressive factor that companies find persuasive is that a freight train over 700 metres' long replaces at least 52 trucks on overloaded roads.

Modility has gathered somewhat more experience. This digital platform was able to celebrate its first anniversary in March. According to Modility, more than 200 companies had registered by then. Enquirers such as forwarders or shipping companies have a network choice of around 370 maritime hinterland, along with continental, services. This currently covers 80 terminals in 15 European countries.

The Fraunhofer research institute also just recently presented the idea of a web-based data and interchange platform for intermodal transport. A platform should enable individual shippers to pursue a direct exchange with the players involved in freight trans-

port and handling. This could facilitate pooling, based on timing and requirements, of the shipments of several shippers, a reduction of costs through direct loading at regional intermodal terminals and an improved environmental score thanks to the generally higher rail share. ■
Bengt van Beuningen



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Rebuilds instead of newbuilds

Clean Logistics specializes in converting diesel trucks to hydrogen. The Hamburg-based company aims to deliver 100 zero-emission trucks during 2023.

Clean Logistics' hydrogen truck 'fyuriant' seems a natural for Hamburg's port industry. "Anybody moving around in the Elbe city's wider local traffic area can certainly switch to our solution," says Dirk Graszt, CEO of the Hamburg-based company that has specialized in converting diesel trucks into hydrogen-powered vehicles. For container transport, especially, payload is the main factor, which purely electric trucks cannot accommodate on account of the size and weight of their batteries.

Clean Logistics initially analysed the market. The company discovered that the highest numbers of registrations in recent years had been for DAF XF 106 and Mercedes Actros MP4 tractor-trailers. "These are the vehicles that we mainly take for conversion," explains Graszt. The flow of enquiries from fleet operators for the zero-emission truck is already in the high four-figure range. The company aims to have converted around 100 vehicles during next

year, in 2024 the total should rise to 500. Contracts have already been signed with some Hamburg-based customers.

The whole process is supremely sustainable. "To re-equip a vehicle from the second-hand market is naturally far more environment-friendly than building a new one," stresses Graszt. Since not all customers wish for a rebuild, under its partnership with GP Joule, in future Clean Logistics will also be building new hydrogen-powered electric trucks. Delivery of the first 40 is due in autumn 2023. In view of current delivery problems, Clean Logistics has already secured batches of the essential elements. "We have firm, reliable suppliers and have the necessary parts available to be able to construct the vehicles," he explains.

The company operates with customary 350-bar hydrogen tanking. The tanks hold 43 kilograms of hydrogen. Following transformation, this suffices for a

Second life: The premiered 'fyuriant' vehicle is a converted DAF truck



© clean logistics, Paul Schimweg

distance of about 500 kilometres, or for a truck driver's shift. The truck can be refuelled at stationary or mobile hydrogen filling stations. The necessary infrastructure is currently being built, with support from GP Joule, Clean Logistics' new partner. The company develops, builds and operates hydrogen filling stations to order from local councils, industrial estate developers and companies generally. These serve trucks, buses, light commercial vehicles and cars.

Conversions require the following: Clean Logistics removes the drive train, engine and back axle from vehicles, leaving the front axle, frame and cabin. The hydrogen tanks are inserted, along with a fuel cell, an 80 kilowatt-hour battery system and a drive axle with internally mounted wheel hub motors that facilitate propulsion. A vehicle converted in this way generally has a life cycle of at least ten years. Hitherto the conversion has lasted about twelve weeks, but with more experience the refit should in future take no more than around four weeks.

According to Graszt, the incentive to switch to the hydrogen truck is also monetary. Federal government has launched KsNI, a programme for subsidiz-

ing climate-considerate commercial vehicles and infrastructure, and is currently refunding 80 percent of the difference in acquisition costs between hydrogens and diesel trucks. So BAG – the Federal Office for Goods Traffic – is subsidizing the 400,000-euro difference to the tune of 320,000 euros. According to Graszt, investing in the generally costly truck definitely pays, with its working life being increased by ten years. A further essential point is that the new form of propulsion shows virtually no wear.

Dirk Graszt

CEO at Clean Logistics SE



Clean Logistics produces the trucks in Lower Saxony at Winsen/Luhe in the Hamburg Metropolitan Region. A new building covering 10,000 square metres is under construction. The CEO is confident that "With all that we intend doing, however, that size will not be adequate." The search is therefore on for further production space. ■ (njo)



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From traditional quartermaster to cutting-edge logistics provider

Traditional companies are going for sustainability. For Eichholtz, this commences with detail. Not least due to constant modernization moves, this handling and storage firm has been successfully trading in the Port of Hamburg for 90 years. For CEO Franziska Kraupner, grand-daughter of one of the firm's founders, the top priority is conversion to more sustainable production. The green thread in its operations starts with certification for Bio and Bio-Suisse organic seals and runs through to environment-friendly energy consumption. Ever since 2012, the Eichholtz forklift fleet has been electrically propelled rather than using diesel. Thanks to various moves, such as an in-house waste press, green power and sustainable water preparation, this year the company became part of an environmental sponsorship.

Atlantic as new HHM member

HHM – Port of Hamburg Marketing is delighted to be able to welcome Atlantic as a member of the association. Atlantic was founded in 1979 as a family firm and has grown from being a small Swiss forwarding company into an important global transport group. From the start, the focus was on Asia. This strategic decision greatly contributed to Atlantic's growth. The group is now represented by an established network plus its own branches across both the Asia-Pacific region and Europe. Over 500 dedicated and specialist staff look after more than 200,000 TEU of sea freight plus over 8,500 tons of air freight. Among services provided are sea freight, air freight, China rail, multimodal services, project shipments, warehousing & distribution, value added services and Atlantic's Centralized Operations Platform – A-COP. (red)



A supercomputer in Hamburg

The German Climate Research Centre is being equipped with a new super computer known as 'Levante'. This will be the only one in Germany deployed entirely on climate research. Here are just a few astonishing facts: Levante comprises 2,832 parallel processing nodes, each with two processors, together delivering a peak processing performance of 14 PetaFLOPS, or 14 trillion mathematical operations per second. An additional 40 nodes, each fitted with four high-performance GPUs – graphic processing units provide a further 2.8 PetaFLOPS. The system's

complete mainframe consists of more than 800 terabytes, corresponding to the main storage of approximately 100,000 laptops. To store any data calculated, Levante has available a 132-petabyte hard disk system. (red)



© Michael Böttinger / Deutsches Klimarechenzentrum

Cycling the port - and Port of Hamburg Marketing joins in

The slogan returned from 1-21 September: 'On your bikes!' The City of Hamburg took part in the STADTRADELN – CITY CYCLING project. Everybody living, working, belonging to a club or attending school/university here could take part in STADTRADELN. Port of Hamburg Marketing also signed up.

STADTRADELN is a competition aiming to animate people to cover as many journeys as possible in a 21-day period on their bikes. Every kilometre counts. Tracking is by App or logbook. Anybody can take part in the local community where he/she lives, works or belongs to a club.

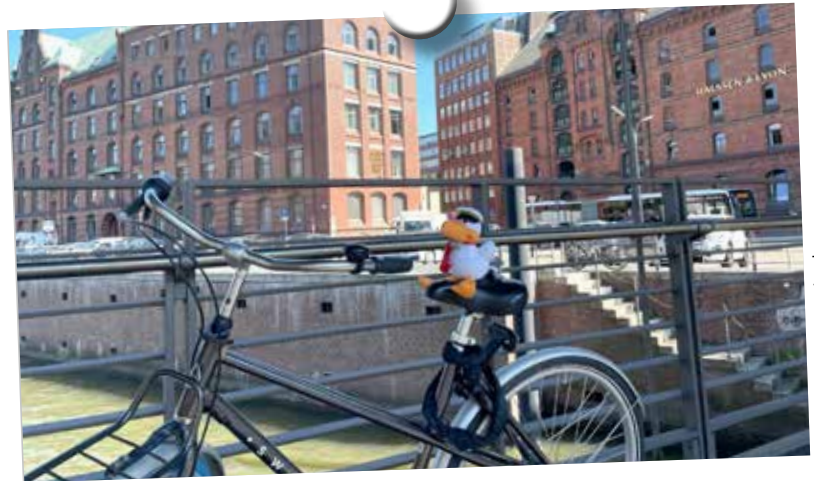
Despite the pandemic, last year 11,826 starters from Hamburg in 736 teams covered a total of over 2.1 million kilometres. This year's target has been even a little higher – around 2.5 million kilometres. As we went to press, it was not clear whether this had been reached.

Hamburg's results will be announced on 29 September. From 8 October a national comparison will be published. The winners will be honoured at a ceremony on 27 October. Even

if the main object is sustained mobility and having fun cycling, victors in four categories will receive awards. (bh)

Categories:

- Team covering the most kilometres
- Team with the most members
- Team with the most kilometres per starter
- Best female/male individual participant



© HHLA – Gustav Werbeck

Maritime feed socket

The MS 'Artania' berthed in the Port of Kiel on July 2022. The day was special because for the first time she took shore power instead of generating it herself. This was a premiere for cruise line Phoenix Reisen. Before the MV 'Artania' could link up with the shore power unit, an integration test was required between the ship and the power unit. The ship consumed around 20,000 kWh of power during her laytime. For Phoenix Reisen, this will not be the last vessel to receive shore power. The MV 'Amadea' is already equipped for it, and further ships are currently being converted.

The Port of Kiel is going for shore power, so as to become more sustainable. By 2023 the port operator will be investing around 17 million euros in two shore-power units at Ostuferhafen. In future, this should enable up to six vessels to be supplied simultaneously with shore power. (sh)

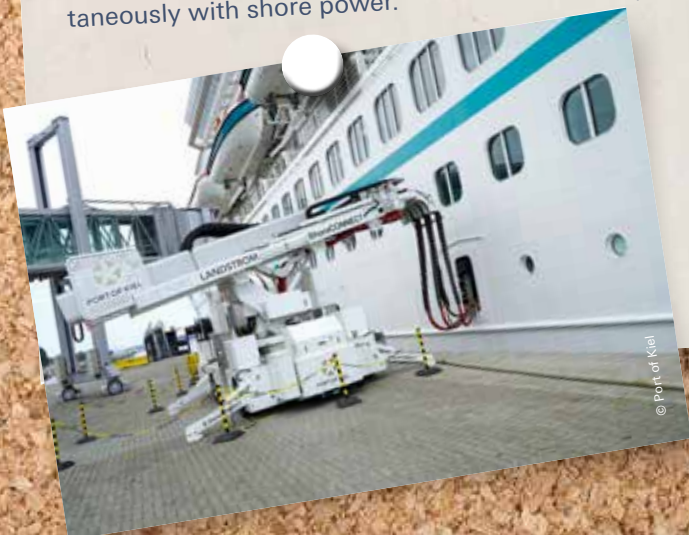


© HPA IVECO

25 e-trucks for HPA

Hamburg Port Authority (HPA) is taking the next step towards climate neutrality. The first Nikola Tre BEV – battery electric vehicle – has arrived in Hamburg. Michael Lohscheller, President of Nikola Corporation and Christian Sulser, CEO of Iveco Magirus, handed over the first of 25 to Jens Meier, CEO of Hamburg Port Authority at a ceremony on 14 September.

At the opening of their joint production facility in Ulm, Iveco and Nikola Corporation signed a Memorandum of Understanding with HPA in September 2021. This regulates a two-stage trial period and delivery of a total of 25 NIKOLA TRE BEV tractor units to the port during 2022. (rj)



© Port of Kiel

Bengt van Beuningen retires

Ralf Johanning becomes Press Spokesman. Mathias Schulz takes over as Head of Communication.

Bengt van Beuningen, Head of Communication and Information for Port of Hamburg Marketing, has retired after 23 years. He commenced work at its predecessor organization HHVW – Port of Hamburg Sales Promotion and Advertising – in 1999. Ever since, he has successfully directed worldwide communications work for Germany’s largest universal port for the benefit of around 280 member companies in the port and transport industry, Hamburg Port Authority and the City of Hamburg. With press activities, Port of Hamburg Magazine plus other means and channels of communication, Bengt van Beuningen and his colleagues on the team have successfully positioned the Port of Hamburg brand in Germany and internationally as a sustainable and digitally fully-equipped port and logistics centre.

“Excellent teamwork and active cooperation with member companies, media and institutions have been the basis of our success,” says Bengt van Beuningen. ““To continually produce communication and marketing work for a world port like Hamburg over very many years was only feasible in close consultation with our members and all the partners constituting the Port of Hamburg’s maritime network. My special thanks go to all my colleagues at Port of Hamburg Marketing, and to all our partners, for our ability so far to overcome the crisis caused by the pandemic and to emerge stronger from it.”

Port of Hamburg Marketing CEO Axel Mattern comments: “Our successful advertising, press and public relations work over the impressive period of over two decades is invariably linked with the name of Bengt van Beuningen. He laboured with tremendous commitment for the association. On behalf of its constituent bodies

too, I would like to express my thanks for all his sterling work. I wish Bengt van Beuningen all the best. I am delighted that as a freelance communications consultant, he will continue to place his immense expertise and numerous contacts in German and international media at the disposal of the seaport and logistics sector. With the changes being made in close coordination with our association’s organs, we are positioning Port of Hamburg Marketing extremely well and feel optimally equipped to meet the challenges of the immediate future.”

Ralph Johanning has taken over as Press Spokesman as from September. Mathias Schulz, a member of HHM’s top management, has since October 2021 been responsible for the Digital & Live/Social Media and Moving Images, Trade Fairs and Events area and has now been appointed Head of Communication. ■ (red)



Bengt van Beuningen (centre) has retired. He has handed over as Head of Communications to Mathias Schulz (l.) and the post of Press Spokesman to Ralf Johanning (r)

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