

duisportmagazin

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A magazine published by Duisburger Hafen AG 1/2014



duisport receives the Chinese President

duisport Group continues growth trend in 2013

Maritime cargo flows

Urban art in the Parallelhafen

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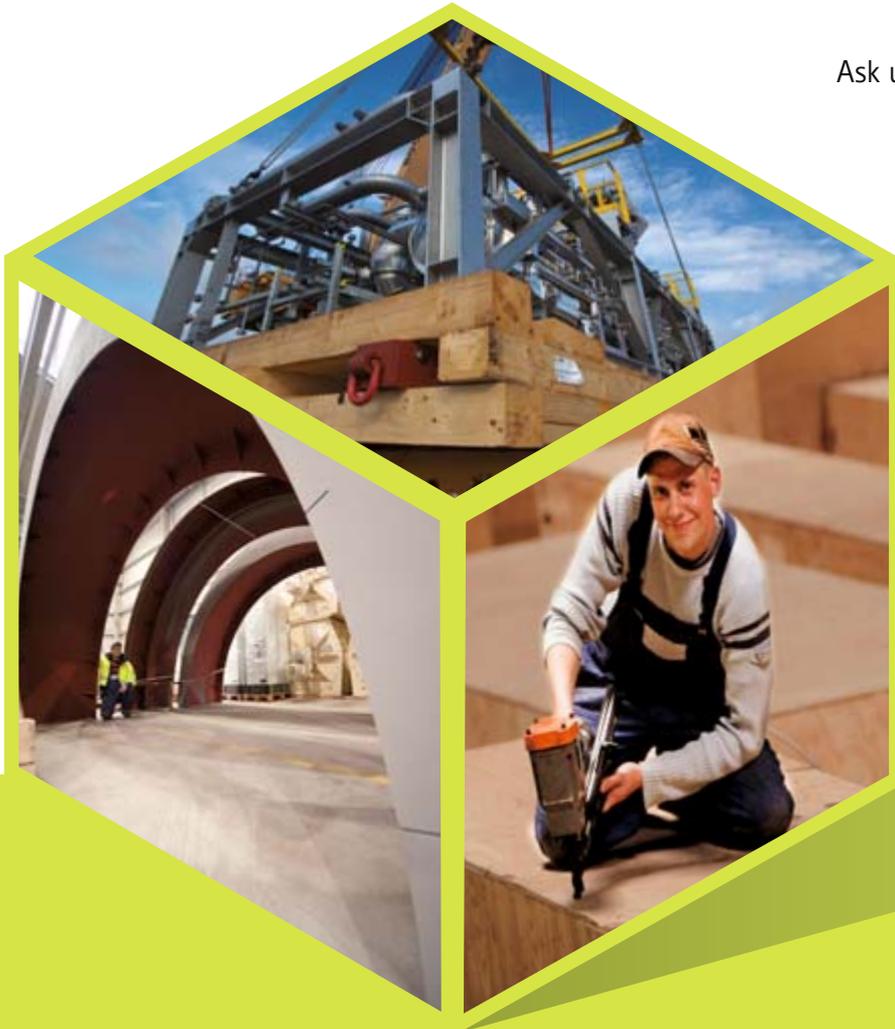
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4 New silk road

China's President Xi Jinping visits the Port of Duisburg

In the scope of his five-day European tour, the duisport Group had the honor of greeting the Chinese President Xi Jinping at the logport logistics area in Port of Duisburg. Erich Staake, Chief Executive Officer of Duisburger Hafen AG, received the president in person together with Vice Chancellor Sigmar Gabriel and Hannelore Kraft, Minister-President of North-Rhine Westphalia. The center of attention was the new silk road.



6 Annual Report 2013

The positive growth trend continues

At its annual press conference at the beginning of April, Duisburger Hafen AG had the pleasure of being able to report a positive growth trend for the last fiscal year, despite the difficult economic environment. The total operating revenue of the company increased in 2013 to € 175 million.



8 Maritime cargo flows

Western ports conquer growth markets

Quality problems in Northern ports and the coming reduction of the sulfur limits for ship operations in the North and Baltic seas set for 2015 are resulting in the long term to an important reorientation of maritime cargo flows from Eastern Europe to Western ports. As the largest European hinterland hub, duisport will play an important role in this.



32 Urban art project

Color vibrations at the Duisburg Parallelhafen

At the dike breach in the street Am Schlütershof, the Duisburg artist Martin Schmitz is planning a colorful project. The steel sections of the sheet piles are to be painted in different color tones, creating a large color gradient along the street. These „color vibrations“ are planned to be completed at the end of the summer. The association „hafenkult e.V.“ is acting as a partner of the project.

IMPRINT

40. Volume – Edition 1/2014
 Frequency: Published twice per year, June and December
 Publisher:
 Duisburger Hafen AG
 Alte Ruhrorter Straße 42–52
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Layout: Visuell Marketing – visuell-marketing.com

Satz: media:grafixx, Mülheim an der Ruhr

Print: druckservice duisburg medienfabrik GmbH & Co. KG, Duisburg

Translations: Kern AG, Bonn

Cover: Welcome of President Xi
 Cover photograph: Georg Lukas

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Chinese President Xi Jinping visits the Port of Duisburg

(jb) Around 250 guests of honor accompanied the State Visit of the Chinese President Xi Jinping on March 29, 2014 on the logport logistics site in the Port of Duisburg. Together with Vice Chancellor Sigmar Gabriel, NRW Minister President Hannelore Kraft and Lord Mayor of the city of Duisburg Sören Link, Erich Staake, the Chief Executive Officer of the Duisburger Hafen AG, received the President. The main attraction was on the arrival of the “Yuxinou Train”, which connects the cities of Chongqing in Central China and Duisburg with each other in just 16 days. The high-ranking visit underlines the importance of North-Rhine Westfalia as an industrial and logistics location NRW.

together,” emphasized Erich Staake, Chief Executive Officer of Duisburger Hafen AG. “The Yuxinou Train is proof that every distance can be overcome, no matter how far, if you create connections that bring benefits for both sides.”

The regular freight train connection between Chongqing, the largest city in the world, and the world’s largest inland port already attracted a great deal of attention last year. In the presence of representatives of the Chinese media and state television, the arrival of the Yuxinou Train on September 10, 2013 was celebrated with a large reception.

The media attention this aroused has now led to the President of the People’s Republic of China, Xi Jinping, who wanted to view the destination of the train in the Port of Duisburg himself during his European tour. Xi Jinping was accompanied on his visit to logport by Vice Chancellor Sigmar Gabriel and NRW Minister President Hannelore Kraft.

New Silk Road

For the Chinese government the Yuxinou Train is a symbol of the “New Silk Road”. Chinese Trade Minister Gao, who gave a brief speech on the occasion of the visit, emphasized the good cooperation

As part of his five-day trip to Europe, the Chinese president also visited Duisburg on March 29 in addition to Brussels, Paris and Berlin. logport in Duisburg was the only visit to a company the Chinese president made during his trip. It underlined the importance of Sino-German trade relations and the special role of the world’s largest inland port for trade with China. At the center of his visit to Duisburg was the arrival of the Yuxinou Train which travels up to three times a week between Chongqing in Central China and Duisburg. “Through this train connection China and Germany have come closer



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between China and Germany: “As the start and end point of this train the Port of Duisburg plays an irreplaceable role in goods transport between Germany and China. We will further develop this connection with our German partners.”

Minister President Kraft also praised the cross-border rail project and promoted the development of the business and trade relations between NRW and China: “This connection is more than a logistics project. It is a strong symbol with a historic background. The new Silk Road is an impressive example of the dynamism of the trade relations between our two countries.”

The Yuxinou Train, which covers a route of over 10,000 kilometers in 16 days, was started in summer 2011 as the first train between China and Germany with one departure per week. Duisburger Hafen AG played a decisive role in bringing this connection about. Since then the number of weekly departures has risen to three – and the perspectives for growth remain positive. Numerous companies from the electrical, computer, and high-tech industries – for example, the US manufacturer Hewlett Packard (HP), the Taiwanese supplier of electrical appliances Foxconn, and the computer manufacturer Acer also based in Taiwan – but also car manufacturers and suppliers and machine tools manufacturers, have their production locations in the “City of Light” on the Yangtze Kiang.

With more than 30 million inhabitants, Chongqing is one of the fastest growing metropolitan areas in the world. Arriving in the middle of Germany and the possibility to distribute goods onwards from here makes the container train very attractive for production companies based in China. At the same time, it makes it possible for German companies to transport their goods by land. The train connection offers incredible

opportunities relating to cultural and economic exchanges between China and Europe.

Train connection as an attractive alternative to sea transport

The train’s transit time is just 16 days and it is thus twice as fast as transport on the sea route, but is only half as expensive as air freight. “A direct trans-continental train connection to China represents an attractive addition to sea transport services,” says Erich Staake, convinced of the further success of the Chongqing-Duisburg route.

The Port of Duisburg is the only port in Europe offering several transcontinental train connections to China. In addition to the direct connection between Chongqing and Duisburg, for example, there is also a regular train connection from Shanghai/Beijing to Duisburg. “These transcontinental connections, are putting the port into the focus of global supply chains even more. At the same time they are strengthening Duisburg as a leading logistics location. In Chongqing and Duisburg two of the most important logistics turntables in China and Central

Europe are connected to each other by land. That the Chinese President chose the start and destination of this train for his European trip underlines the significance given by China to NRW as a business and logistics location,” said Staake.

The 10,300 kilometer long Trans-Eurasian connection through China, Kazakhstan, Russia, Belarus, Poland, and Germany was developed in 2008 by DB Schenker Rail and Trans Eurasia Logistics, a joint venture between DB AG and the Russian railway RZD. It is intended to be an alternative to the heavily used northern route via the Trans-Siberian Railway, which is also 2,000 km longer. The manufacturer HP, which has high quality electronics and computer technology transported from Chongqing to Duisburg using the train, was also included. The advantages are obvious: transferring containers from Chongqing to a Chinese seaport takes about three days alone – a period of time during which the train to Duisburg has already completed half of its route. The loading capacity per train is between 41 and 50 forty foot containers. Security is also provided: every single container is continually monitored by a GPS system during the whole transport period.

As Erich Staake concludes: “China has become a strategic market for Duisburg. The Yuxinou Train is more than a train system, it is a symbol for a new quality in the trade partnership between our countries.”



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Annual Report 2013 – the positive growth trend of duisport Group continues

The Executive Board of Duisburger Hafen AG pleased at a positive balance sheet for the 2013 fiscal year (from left to right): Markus Bangen (Member of the Executive Board), Erich Staake (Chief Executive Officer), Prof. Thomas Schlipköther (Member of the Executive Board).

(j/b/tw) The total output of the duisport Group rose to 175 million euros in the 2013 fiscal year. Thus the Group posted a rise in output of around 10 per cent compared to the previous year, including revenues from strategic investments. With earnings before interest, tax and depreciation and amortization (EBITDA) of 30 million euros, it was possible to increase the 2012 level slightly (29 million euros). The result before taxes on income reached the previous year's figure of 12 million euros. "Despite a difficult economic environment, all divisions have developed well and have contributed to the positive result. Our integrated service portfolio thus continues to form the basis for a stable development of the result," emphasized Erich Staake, Chief Executive Officer of Duisburger Hafen AG, at this year's annual report press conference at the beginning of April.

The business volumes of each of the three divisions Infra- and Superstructure, Transportation and Logistics Services

and Packing Logistics were increased in 2013. While Infra- and Superstructure raised sales by 14 per cent to nearly 46 million euros (2012: 40 million euros), sales in the Transport and Logistics Services division grew by around 24 per cent to 54 million euros (2012: 44 million euros). Packing Logistics achieved sales of 58 million euros, which represented a plus of 12 per cent in comparison with the previous year (2012: 52 million euros). In this context it has to be taken into account that the revenues of the Weinzierl Group and duisport packing logistics India Pvt. Ltd. have been included in this business segment for the first time.

The investment volumes of the duisport Group were approximately 50 million euros in the 2013 fiscal year. At about 45 million euros, the largest part of investments was due to superstructure. Goods distribution centers and building up terminal capacities were in particular focus here. The remaining investments were due to port infrastructure.

Increase in output despite decline in handling

With a view to cargo handling, the 2013 figures did not only stagnate in the sea-ports. The entire logistics sector was not able to post any appreciable growth for the first time in 15 years. Total cargo handling in the duisport Group's ports was not able to fully decouple itself from this development. Thus the volume of cargo handled on the three modes of transport ship, rail and truck of 62 million tonnes was just below the previous year's level of 63 million tonnes. This slight decrease is attributable to the loss of a key customer in coal logistics.

Total cargo handling for Duisburg ports amounted to 123 million tonnes last year (2012: 110 million). The increase largely resulted from the handling-related recovery in private plant ports, which had suffered a collapse due to poor economic developments in the coal and steel sector in 2012.

In 2013 a total of 31 million tonnes (32 million tonnes in 2012) was handled by rail and ship in the ports of the Duisport Group. At 16 million tonnes, rail handling reached the previous year's level, while ship handling fell slightly to 15 million tonnes (2012: 16 million).

It was again possible to increase container handling, which grew by 16 per cent to 3 million TEU (2012: 2.6 million TEU). "This positive development in the container sector shows that you can also generate growth with integrated transport and logistics concepts when handling figures stagnate in the seaports," said Staake.

Marketing successfully continued

At around 264,000 square meters it was possible to achieve a high marketing output in the past fiscal year. A decisive contribution was made in this regard by the automotive sector in particular, with the locations of the CKD logistics centers (Completely Knocked Down) for Audi and Volkswagen.

In addition, at the end of 2013 the Duisport Group took over parts of the Kohleninsel in Ruhrort and reactivated these for import coal handling. This decision was based on the loss of a large coal logistics customer. It is expected that the positive effects will materialize in the current year.

In addition to space directly in Duisburg, space in the surrounding region is also available to the customers of the Duisport Group. Kamp-Lintfort (logport IV) and Oberhausen (logport V) are at the forefront here. "As before, the port has nearly 100 hectares of space that is also being made available by optimizations. With the development of further commercial and logistics areas in the whole Ruhr area, we will also be offering our



Total cargo handling for Duisburg ports amounted to 123 million tonnes in 2013.

customers optimal connections to the multimodal logistics turntable Duisport in upcoming years," said Erich Staake. It is intended to develop a further 100 hectares for logistics and industrial locations over the next five years.

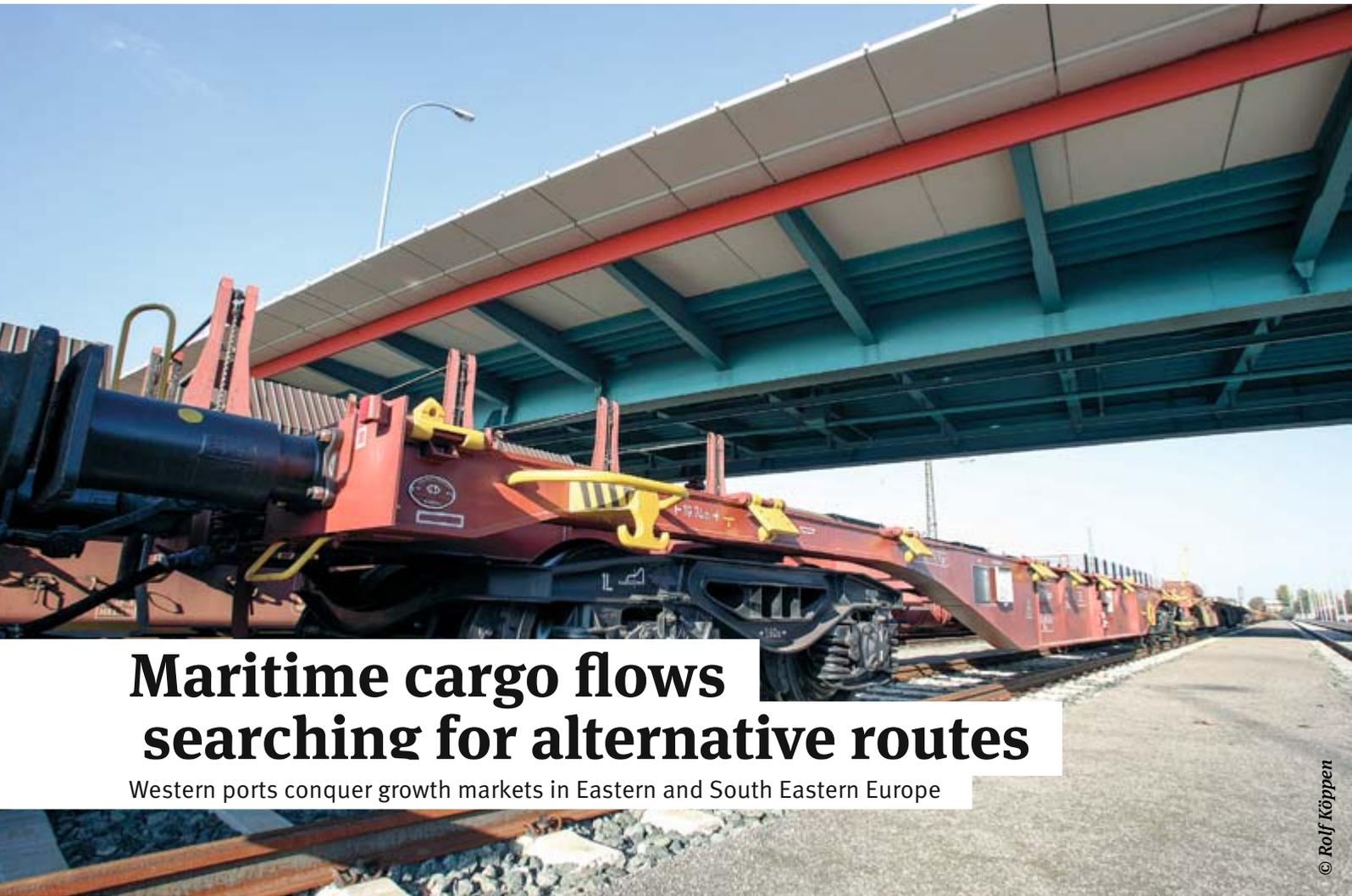
International activities under further expansion

The Duisport Group also built up its international range of services further in the 2013 fiscal year, primarily in packing logistics. In addition to the expansion of the site in China (Shanghai/Wuxi), the joint venture Duisport packing logistics India Pvt. Ltd. started business in India on January 1, 2013. From a newly acquired location in Pune, dpl is offering its expertise in industrial cargo packing and project logistics to international mechanical and engineering companies in India in accordance with European standards.

With an investment in the Weinzierl Group in Southern Germany and the French packing company EILS, the dpl Group is also expanding on packing activities and has acquired four additional locations in the process.

Furthermore, in 2013 the Duisport Group drew up and successfully concluded a master plan for DP World, one of the leading port and terminal operators in the world, for an intermodal port hinterland concept for the Port of Jebel Ali in Dubai.

As Staake concludes: "The new business year is off to a good start. All business segments show a positive development. Consequently, we continue to increase the number of employees and will for the first time reach a total of 1,000 employees in the current year".



Maritime cargo flows searching for alternative routes

Western ports conquer growth markets in Eastern and South Eastern Europe

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(dü) Traditionally, the strong growth markets of Eastern Europe have been served by the sea ports in the North Sea and the Baltic to a considerable extent. In addition to pre and onward carriage by rail or truck, further feeder ship transport by ship is usually still required up to the intercontinental main leg. Quality problems in the Northern ports and the upcoming lowering of the sulfur threshold to go into effect in 2015 for ship operations in the North and Baltic Seas are leading to a reorientation of maritime cargo flows in Eastern Europe to the Western ports. As the largest European hinterland hub, Duisport is playing a significant role in this.

Even just a few years ago, rail transports to Russia, Kazakhstan or to distant China were tied with terms such as bureaucratic barriers on the borders, insecure transport routes, and incalculable train run times. Now, three weekly train departures between Duisburg and Moscow, as well as three train connections to Chongqing, China, the largest city in the world, are a matter of course. The formalities

at the border have been regulated and transport security is guaranteed by satellite supported surveillance systems and quickly available security staff along the rail routes, so that today train run times of 17 to 20 days between Duisburg and Chinese stations are guaranteed.

The fact that the security of such container transports is assured at all times is shown by the value of the freight carried: in addition to high-quality vehicle and machinery parts that travel from West to East, it is mostly electrical and electronic products coming from the other direction that use the time and cost advantages compared with air cargo or sea transport to reach their markets quickly.

“The example of the traffic to and from China in particular clearly shows that technical and logistical innovations help raise the attractiveness of the railway in continental and intercontinental cargo exchange and continually increase the acceptance of this mode of transport among shipping businesses,” argues

Erich Staake, Chief Executive Officer of Duisburger Hafen AG. “Therefore, we are continually investing in the development of the rail infrastructure and thus actively contributing to shifting transport in long-distance cross-border haulage from the roads to the rails.” Today, 360 block trains a week are processed at the Duisburg terminals to inland and coastal terminals throughout Europe and as far away as Asia. “The option, which does not exist anywhere else in Europe, of sending single or several containers or swap bodies to 80 different destinations each week acts like a magnet – both for further relocations of industrial and retail companies and for international logistics service providers that use these connections for their cross-national transport chains,” says Staake.

“The increasing development of Eastern European growth markets with direct train connections from Duisburg has led to a reorientation of maritime loading flows via the Duisburg hub in the past few months,” reports Heiko Rumpfled,

Member of the Management Board of the Duisport subsidiary Duisport agency. Metrans, for example, has served the Duisburg-Prague route three times a week since 2013. The Polish combined transport operator PCC connects its terminal in Kutno with Duisburg twice a week via Frankfurt/Oder. Austria is linked to Duisburg with three train systems. Kombiverkehr goes to Wels, Hupac and IFB each serve Vienna.

“The daily connections to the seaports Rotterdam, Antwerp, and Zeebrugge by rail and ship from Duisburg are now prompting numerous customers who earlier routed sea traffic via the Northern ports to reach it via Duisburg and the Western ports now,” says Rumpfied with satisfaction. There are many reasons for this: in addition to quality problems on traditional transport routes, cheaper handling costs and the high departure density in the Western ports play a decisive role.

But the internal port processing quality is also cited as a reason again and again. For example, the onward transport of a container coming from Duisburg in the Port of Antwerp to the final loading terminal is achieved by water taxi with

inland waterway ships according to a fixed schedule. In the Northern ports, in contrast, terminal delivery traffic flows, which are frequently by truck, have long suffered from considerable congestion problems. These problems have been made even worse by the increasing handling of large container ships. “For this reason, delivery traffic between the terminals has been processed as much as possible via rail in Duisburg for quite some time now. Inland waterway ships are also used between logport I and II,” reports Rumpfied.

Large combined transport operators such as Hupac and IFB use the Duisburg terminals to consolidate their seaport traffic with hinterland destinations in Southern and Eastern Europe. Thus IFB and Duisport agency bring containers on block trains from Zeebrugge and Antwerp to Duisburg to form the new direct trains here to Italy, Vienna, and Turkey. “The geographic location of Turkey, which enables the country to act as a bridge between Europe, the Middle East, Asia, and Africa, offers ideal conditions for developing an important international logistics hub. The rapid growth of multimodal combined transport connections from Duisburg to Turkey in the past

few years confirms this,” notes Duisport boss Erich Staake.

The most recent example of this is GreenBridge Multimodal C.V., launched in mid-January 2014, a joint multimodal service between Europe and Turkey offered by Samskip Multimodal B.V. and the Turkish company Intercombi (ICL) Transport. It began with three weekly block trains that connect the Samskip Multimodal Rail Terminal in Duisburg-Hohenbudberg, which started operations at the beginning of 2013, with the Italian port Triest. From there, traffic continues by ship to the large Turkish seaports. Samskip Multimodal Chief Operating Officer Diederick Blom expects the operating frequency to increase to five connections a week in the near future. “The new GreenBridge Service connects Turkey via Duisburg not only to the Samskip multimodal network, but also to all other rail and sea connections that can be reached in Duisburg to the seaports and inland terminals.” According to Blom, the new service has substantial advantages over the alternative of road transport, such as quicker transit times, avoiding waiting times on borders and in traffic jams, and considerably lower CO₂ emissions.

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dpl expands in Europe's largest seaport

(dü) In order to meet customers' growing requirements, Duisport packing logistics (dpl) has been operating a new location since the beginning of April on water deep enough for seagoing vessels at the Botlekterminal in Rotterdam. This terminal is opening up further possibilities for handling large volume plant parts and is intended to tap additional market segments. With more than 300 employees today, the company is among the market leaders in special packaging for the capital goods industry.

Packaging, logistics and services: Duisport packing logistics has dedicated itself to these tasks with their most varied requirements for more than 40 years. The company has belonged to the Duisport Group since 2007 and since then it has developed into an important source of income for the globally active port logistic provider with total sales of 175 million euros. In 2013 packing logistics achieved an increase of sales of 12 per cent to 58 million euros, which is attributable to new activities in Germany and the development of Duisport packing logistics India Pvt. Ltd in Pune/India. In Germany dpl has since been underway nationwide as a provider of solutions

in packing services, including rounded services for the mechanical and engineering sector. In China the company is represented with its own subsidiaries at the locations Shanghai and Wuxi.

"The continual expansion of our packing business in the past seven years has been driven by the specific requirements of our customers for high-quality packing and logistics services. In the wake of globalization, German and European machinery and plant constructors now also produce in emerging industrial markets such as India and China, and they expect the same quality in packing and logistics locally as in Europe," reports Erich Staake, Chief Executive Officer of Duisburger Hafen AG, who is also dpl Chief Executive Officer. "We ensure the high standards required at all locations with well trained staff and continual interaction with the specialists at our headquarters in Duisburg."

As the world's largest inland port, Duisport is the trade and transport turntable of the Rhine-Ruhr region, the largest industrial conurbation in Europe. Around 250 companies primarily specialized in transport and logistics offer their ser-

vices here. The dpl service spectrum is thus integrated into an optimal environment and the packing specialist's customers can profit extensively from intelligently linked complete logistics chains. The successes of the clients are increasingly based on the varied synergies jointly developed by Duisport packing logistics and Duisport as partners. In this regard, no object is too big for dpl: in addition to machinery components in conventional dimensions whole plants or production facilities are packed and transported.

Around 10,000 square meters of hall space available

Alongside a branch in the seaport of Hamburg, dpl also continues to be represented by Duisport packing logistics International N.V. in the port of Antwerp, with special ranges of services in packing on water deep enough for seagoing vessels. As an addition to industrial and export packing, the handling and FOB handling sectors make an important contribution to the overall output at the seaport locations.

“A large customer from the mechanical and engineering sector has now prompted us to expand our activities to Europe’s largest seaport, Rotterdam, with our own location,” says Staake, justifying the recent addition to his service portfolio. This primarily concerns packing large volume and heavy plant components, for which it makes sense to carry out the direct handling at the seaport for reasons of weight and dimensions alone. Furthermore, all other goods can be packed in Rotterdam in order to save time and additional handling.

Up to 10,000 square meters of hall space with crane facilities and an in-house rail connection, as well as sufficient free space, are available at the new location in the Botlekterminal. Truck access, with five and eight meter wide gates providing access to the ISPS secured premises, makes it possible for heavy transports of all dimensions to reach the location by road. The whole site is laid out as a bonded warehouse, which makes later sea vessel customs clearance easier. Two 100 tonne mobile cranes that can also lift 150 tonnes in tandem, as well as several 45 tonne reach stackers and heavy forklift trucks ensure the necessary mobility on site. The premises have over 600 meters of quay length on 13 meter deep water and 500 meters of quay length on 9.75 meter deep water. The tidal range is a maximum of 60 centimeters and the journey for seagoing vessels to the North Sea is possible in two and a half hours without locks.

Floating cranes with up to 2,400 tonnes of lifting force can also be used as needed on the quay facility laid out for heavy goods. “With our new branch, we are the only industrial goods packer in



Rotterdam that has a direct sea water connection,” reports dpl Contract Manager Daniel Herkel.

Outsized packages are no problem

Since the beginning of April, dpl has been on site with its own team. Packing material and standard crates from the company’s own production locations in Germany, which are delivered as construction kits, are continually available. Two hall cranes with a lifting capacity of 15 tonnes are available for assembling packing in the 20 meter high hall. In combination with the 15 meter wide and 16 meter high hall gates, packages with oversize dimensions can also be handled without problems. “In the future we will be able to unload and pack oversized switching cabinets and other large packages in particular without dif-

ficulty. The generous dimensions of the packing hall, which do not often exist in the hinterland, are opening up additional market opportunities for us that we will use for the targeted acquisition of new customers,” says Herkel. Overdimensioned packages thus reach the seagoing vessel directly on the shortest route after packing in Rotterdam.

“Our individually tailored problem solutions start with advising the customer about alternative transport routes, extend to IT control for the whole logistics process, recording and storing all components, packing, customs clearance, and transport up to customs clearance at the destination,” says Herkel, describing the dpl range of services. The components, which are produced worldwide, are already labeled with the barcodes provided by the dpl-batch part system at the producers’ premises. A large part of the plant parts of the current orders are transported to Rotterdam, packed here, and collected. Sub-quantities are packed in Duisburg or other dpl branches and then transported directly to Rotterdam or directly to the final assembly location. “The location in Rotterdam can be expanded flexibly so that we can react quickly and efficiently to new projects,” assures Herkel in conclusion. Further growth is thus already pre-programmed at dpl Rotterdam.





Kagamiwari and more on the Ruhr

(gran) With a demonstration of Japanese drumming, Yusen Logistics (Deutschland) GmbH celebrated the expansion of its logistics center in logport I in Duisburg-Rheinhausen in March. Three Wadokyo Taiko drummers pounded their huge drums for a good twenty minutes as part of the traditional Kagamiwari ceremony on the occasion of the expansion of the logistics center, which was toasted with sake. Beforehand, however, the wooden lid of the sake barrel had to be broken in accordance with tradition. This duty was performed by the President of Yusen Logistics, Hiromitsu Kuramoto, who had travelled especially from Tokyo, and Erich Staake, Chief Executive Officer of Duisburger Hafen AG. It was then possible to serve the rice liquor in a sake-masu, a square wooden beaker.

Yusen Logistics, which has been in logport since 1999 and was thus one of the very first companies to locate there, is now increasing its storage space by 26,000 square meters to nearly 70,000 square meters in a fourth phase of expansion. This makes the Japanese company the second

largest logisticians in logport I after Kühne + Nagel. Yusen's main customers in Duisburg include well-known manufacturers of consumer and production goods, among which are global Japanese corporations and car makers. Yusen cites Mitsubishi Electric as its largest customer and its air conditioning equipment as the most important trade product. The duisport Group has invested 16 million euros in the new building and as much as over 60 million euros in the entire facility to date. Yusen is the tenant and is creating up to 100 new jobs with the expansion. The logistics service provider currently employs a staff of 250 at the Duisburg location and 530 throughout Germany. The headquarters of Yusen Logistics (Germany) are in Düsseldorf.

For Erich Staake this was not the only occasion in spring on which he proposed a toast to good business with his customers. Two further inauguration ceremonies were on the program in March and April, one for the Volkswagen Group and one for the steel tube dealer Benteler Distribution. While Volkswagen opened an export hub

in Duisburg-Kasslerfeld, in which the logistics service provider syncreon has created around 230 jobs, Benteler Distribution had sent an invitation to come to Kasslerfeld for a ground-breaking ceremony for a new central warehouse. A total of 40 new jobs are being created there.

New space is already being developed and will be marketed soon

"For us these events are anything but routine," emphasizes Erich Staake. "The new locations and expansions repeatedly underline the significance of the Port of Duisburg location as an international turntable for globally active logistics companies and their customers." This has since become a real challenge: the free plots of land in the Port of Duisburg – particularly for large locations – are slowly running out. Therefore, the duisport Group is increasingly beginning to scout the surrounding area. In future, for example, former mining sites will increasingly be offered. This is being done together with mining real estate company RAG Immobilien to relocate industrial and logistics companies.

These sites had previously been developed by the Duisport Group. A 30 hectare site in Kamp-Lintfort will be marketed as early as the end of the year. Additional sites will follow soon.

Yusen still managed to get hold of one of the last free plots of land in logport I. "The expansion building adjoining our existing logistics facility is an important step for us – an investment in the future," enthuses Seiji Yuzen, Managing Director of Yusen Logistics GmbH. This is because this would offer customers more service possibilities and new ranges of logistics services, he claims. The new logistics center, for example, has a 6,000 square meter warehouse for up to 4,500 tonnes of dangerous goods. In future it will be possible for different customers to use it at the same time. In addition, there are 10,000 square meters of high bay racking and a 10,000 square meter cross dock available. The latter serves companies from the automotive sector in particular to consolidate components and just-in-time deliveries going to production locations with vendor parts. Up to now, car parts have been brought to Duisburg by truck from suppliers based in North Rhine Westphalia and primarily handled in Britain and Spain – for customers including Nissan and Bentley.

syncreon logistics center already operating

But Yusen Logistics also offers shipment overseas via Rotterdam – possibly also as a reaction to the location of logistics centers from the German car makers VW and Audi in the Port of Duisburg, which are especially oriented towards overseas export business. These locations are seen as one of the biggest coups of the Port of Duisburg. The VW logistics center in Kassel, operated by the automotive logistics service provider syncreon, started operations in April. The

plot of land was arranged by the Port of Duisburg; the real estate was developed by the US investor Goodman for around 10 million euros and has been leased by VW on a long term basis. In the previous year Audi had already moved into an even bigger hub in logport II in Duisburg-Wanheimerort with its logistics service provider Schnellecke Logistics. This was leased directly from the Duisport Group, which is also the investor.

That the Port of Duisburg is becoming more and more attractive for companies from the automotive sector, including the supplier industry, is shown by the example of Benteler Distribution. The company, which belongs to the Austrian Benteler Group, is expanding its Kassel site, which is located directly next to the VW hub and the headquarters of Daimler supplier Tower Automotive, into a central warehouse. "We want to make logistics processes more efficient and are therefore building the new central warehouse in direct proximity to our company location in the Port of Duisburg," says Reinhild Schmidt, Chief Executive Officer of Benteler Distribution Deutschland (BDD), justifying the investment. For 25 million euros, the company is erecting a new 15,000 square meter warehouse building. It will have fully automated high bay racking, creating space for an additional 10,000 tonnes of tubes. With a height of 25 meters and 10,000 cassette spaces, it is seen as one of the largest facilities of its kind in Europe. With its striking blue and white facade, the structure is easily recognized from the Autobahn 40. This is how the new BDD central warehouse is emerging together with the existing warehouse nearby, and it will start operations at the beginning of 2015. With an area of around 35,000 square meters, it will have space for 22,000 tonnes of tubes. BDD has been based in Duisburg since 1957 and employs 130 people there.

But its own account, Benteler Distribution is one of the leading companies in warehousing and prefabricating steel tubes and accessories, with more than 50 locations in over 30 countries worldwide. The company employs over 1,400 people throughout the world. Its storage space available internationally amounts to 290,000 square meters, with an annual sales volume totaling 500,000 tonnes. Benteler Distribution is one of three divisions of Benteler International AG from Salzburg/Austria.

Benteler Distribution invests in Duisburg for its customers

Admittedly, the investment in Duisburg was a tour de force for a company like BDD with sales of 800 million euros, says Jost A. Massenber, boss of BDD parent company Benteler Distribution International (BDI) with its headquarters in Düsseldorf. However, with 4,000 to 5,000 customers, BDD is seen as one of the largest international subsidiaries of BDI. "In this manner, we are increasing our competitiveness and will become more efficient," Massenber points out. In this way, BDD is also improving the logistics structure and work flows as well as its service, adds Reinhild Schmidt. "Customers will profit from higher product availability, shorter delivery times and combined services. In future, suppliers will have a central delivery point and will be able to accelerate their processes thanks to better improved unloading options."

BDD operates a total of two additional distribution centers in Germany: one in Falkensee near Berlin and one in Vaihingen an der Enz. Furthermore, it also manages a "prefabrication center" in Mannheim. The total area of the logistics facilities amounts to 62,000 square meters. A warehouse staff of nearly 165 are employed in Germany, of whom over 50 currently work in Duisburg. At the same time, the location is the largest, followed by Vaihingen with 12,000 square meters of space. Both of the two smaller locations mainly work for special customers, for example from the automotive sector, as what are referred to as consignment warehouses. "Thus we are well-positioned in logistics in Germany," said Schmidt.

Delivery and onward carriage for the new warehouse in Duisburg is currently carried out exclusively by truck with the help of forwarders. BDD does not have its own fleet. In the future, Reinhild Schmidt does not rule out Benteler drawing on the intermodal service range offered by the Port of Duisburg. The site already has a rail connection.



Dr. Jost Massenber, Chairman of the Management Board of Benteler Distribution International GmbH at the ground-breaking ceremony in Port of Duisburg in April.



EuroPorts Cup – making friends

(frön) Even before start of the World Cup, Duisburg has successfully mastered the city's international soccer event of the year: the Port of Duisburg team organized the EuroPorts Cup – and was able to round off this sporting experience with second and fourth place. "It went very well. We had a really great tournament," enthuses Karl-Heinz Wich-Kuhnlein, a member of the organizing team. "The weather played along, and we had lots of spectators who were all satisfied. This is also thanks to the wonderful support of the team from the host club, Duisburg 1900, and the tried and tested catering partner, MSV, which supported us so well." The Duisburgers had made their facility available for the sunny saturday after the public holiday traditionally known as Father's Day, and also supported Wich-Kuhnlein in organizing the event. But just as important is a big thank you to the referees, who with a watchful eye and a strict whistle when necessary, ensured that sporting enthusiasm did not go too far.

But they hardly had to intervene: in the admittedly energetic but, as viewed from the bench, fair encounters, the team from Antwerp gained the upper hand over the duisport team lined up against them. The guests took the lead after just one minute, but then had to accept an equalizer. The deciding goal of an excit-

ing match came only just before the end through a penalty. The second duisport team that lined up also lost narrowly, namely only after a penalty shoot-out against the XI from the Port of Lübeck. "Also an unbelievably exciting game, really worth watching," in the organizer's opinion.

The organizing team continued a long and proud tradition: the first match of the EuroPorts Cup kicked off on a playing field behind the cemetery in Ruhrort

31 years ago. Carriers from the Netherlands, Belgium, and Germany, of course, wanted to clarify once and for all which of them was the champion. "They knew each other from their daily work together and decided to meet once privately as well," reports Wich-Kuhnlein.

Since then, the international port cities' soccer tournament has also developed much further under his leadership. For example, the soccer players have since been guests in many port cities, such as



Team of Port of Duisburg from 2006.

in Copenhagen last year. And the participants have also become much more widely traveled: Gothenburg, Copenhagen, Malmö, Antwerp, Mannheim-Basel, Bremerhaven, Wismar, and Lübeck have all sent teams. Their players and supporters have one thing in common: they are all employed in some manner in the port – whether in administration, in handling, or in one of the companies.

The enjoyment at seeing each other again was also correspondingly great, as numerous private friendships have developed over the years. “Of course you look forward to it when you don’t just communicate professionally by phone, but also see each other under these pleasant circumstances.”

Despite all the fun, everything is taken very seriously. Because the eternal favorites, Antwerp, who were also able to take the cup home with them last year, have sometimes turned up with youth internationals. “Not only does this show at what a high level we’re playing, but also the importance the tournament has gained,” enthuses Wich-Kuhnlein. Incidentally, the previous record holders are the players from a city where the soccer world is currently not doing so well at all: Hamburg. However, in the past it had once used the amateur soccer players from professional club FC St. Pauli – this is also something that only happens in the port.

Stories for decades to come were also written on June 14, when the “duisport Cup” was held for the third time between teams from the Port of Duisburg area, this time with support from MSV Duisburg.



The duisport organizers of the football events (from left to right): Christian Sczygiel, Markus Klenner, Florian Bosch und Karl-Heinz Wich-Kuhnlein.

The “duisport Cup” was again organized by Florian Bosch, Markus Klenner, Christian Sczygiel, Martina Furtak, and Karl-Heinz Wich-Kuhnlein, and was larger and smaller than the EuroPorts Cup at the same time. A total of 24 teams were

lined up, as last year, and competed in four groups to decide the winners, for the finals. But they are doing so on four marked off small pitches and with “only” six players.

To get your bearings with the circumstances of the Cup and MSV: duisport has supported the Bundesliga women of FCR 2001 Duisburg for years. Since January 1, however, the Lionesses have been playing as MSV Duisburg. The role of hosts has also been a favorite task for those responsible for the Zebras; the smart three pitch facility in the Mündelheimer Strasse in the south of Duisburg was willingly made available. “We were very grateful for this sporting support, of course,” says Klenner, praising MSV. As MSV countered: “For us it was a real pleasure and an honor to be allowed to host this great tournament and thus be able to advertise our wonderful game.” After all, the Zebras have successfully played a leading role in promoting and supporting the popular sport for years.



The winner of the duisport Soccer Cup 2013: The team of the CTS Cremerius Transport Service GmbH.



Traffic increasing on the tracks

© Frank Reinhold

(gran) The Port of Duisburg is increasingly relying on rail freight transport. For this purpose, duisport agency is further developing the combined transport network. New routes are being added, old ones optimized.

At the Port of Duisburg the signals are set for growth. “In addition to increasing our handling capacities to five million TEU by 2015, we are simultaneously building up our range for intermodal rail freight transport,” says Erich Staake, Chief Executive Officer of Duisburger Hafen AG. This is because this will ultimately draw the required handling volumes to Duisburg. Today more than 15 railway operators already connect duisport with 360 connections a week to more than 80 destinations in Europe all the way to Moscow and even beyond to China.

One of the focal points in the development of the range of rail services is seen as the connection to the Western ports. Since the beginning of February 2014, there has been a further direct train connection between Duisburg and Antwerp, namely to the deepsea terminal Antwerp Gateway. The new route makes quicker and more efficient freight processing

possible in both directions. The expansion of the connection is also seen as a success for the recently renewed port cooperation between Duisburg and Antwerp.

In reaction to developments in the Port of Rotterdam, such as the commissioning of the seaport terminal on Maasvlakte II, rail capacities between Duisburg and Rotterdam had already been extensively increased. Furthermore, there are now connection options by rail towards the Middle and Upper Rhine.

In order to further strengthen the Duisburg turntable, the range of new national and international connections from Duisburg has also been continually improved – for example to Moscow. Trans Eurasia Logistics (TEL), founded as a joint venture between Russian Railways (RZD) and DB Mobility Logistics AG, has further increased the number of departures to Moscow, for example. A new connection from logport I to Kutno, Poland has also been offered since the beginning of February. From here connections are available to all the large economic centers in Poland as far as Małaszewicze, the logistics center on the Russian border, from

where connections to the Russian rail network are possible. The rail operator is the private combined transport operator PCC Intermodal.

New intermodal connections via Trieste have almost doubled the possibilities between Duisburg and Turkey. There are now possible connections to all the large Turkish economic centers, such as Istanbul, Izmir, and even Mersin. Traffic flows have already been handled via Mersin to Iran, Iraq, and Afghanistan.

Another completely new entry in the schedule is a direct train connection to Kiel. “This is a further supplement to our heavily used corridor to Scandinavia,” says Rumpf. Samskip van Dieren alone is already sending five trains a day toward Sweden. Further combined transport trains run via German Baltic seaports. A test run to Germany’s deep water port Jade Weser Port in Wilhelmshaven is intended to become a regular connection as early as this year. “Our range of train services stands ready,” says Rumpf.

Cost reductions by using LNG in road freight transport



(kuhl) At the invitation of the Logistikinitiative Duisburg-Lower Rhine, around 50 representatives from business and research discussed the use of alternative power units in road freight transport in the Lower Rhine IHK building on April 10. The focus was the fuel LNG (Liquefied Natural Gas). The guests included numerous participants from the Netherlands. LNG is already successfully used there, and also in the United Kingdom, Sweden and Spain. The LogistikCluster NRW, the Verband Verkehrswirtschaft und Logistik NRW (VWL, or transport and Logistics Association of North-Rhine Westphalia) and 2connectBusiness acted as partners of the conference.

At the start of the event, Andreas Lischke from the Deutsches Zentrum für Luft- und Raumfahrt (German Aerospace Center) provided some information about the history of the emergence and implementation of the fuel strategy of the German government. In a paper agreed by the cabinet in June 2013, the government is pursuing the target of ensuring fuel provision and transport policy in harmony with climate protection. LNG is named as an option in the strategy paper because it allows similar ranges to diesel power

units and thus can also be used in long distance transport.

In their presentations, Friedrich Lesche from Iveco Magirus and Peter Hendrickx from Rolande LNG in the Netherlands detailed that LNG trucks only generate noise levels of 72 db(A) and can therefore be used well for deliveries early in the morning or late in the evening. They added that this aspect was primarily important to transporters and shippers whose routes run through or near residential areas. This allows delivery times in particular to be extended and traffic peaks reduced or “driven around” in city centers that already have heavy traffic levels. CO₂ emissions could also be reduced, they continued. This applies in particular when biomethane is used. The CO₂ reduction could even amount to nearly 80 per cent here.

But benefits are also expected on the expenses side. According to the presenters, because transport companies spend almost half their total costs on fuel, this proportion of operating costs was very important. Both of them reported a savings of nearly ten per cent in relation to total costs that could be achieved

with gas-powered trucks under real operating conditions. According to the study, it has become apparent that LNG will be the only cost-effective alternative to diesel, at least in long distance freight transport.

In his presentation, therefore, Jörg Hilker from Linde underlined that the main driver of LNG technology was the high price of oil and the decoupling of the gas price from the oil price. Ever stricter emissions regulations were also promoting the use of LNG. In his presentation, Michael Schaarschmidt from erdgas mobil explained the European Union’s “LNG Blue Corridors” support project. The project partners want to test the use of LNG for its use in practice as well as its competitiveness and energy efficiency in large parts of Europe by 2017. Questions about the technology of gas engines, such as those concerning safety and fuelling, were at the center of the particularly lively concluding discussion.



Industrie 4.0 – Welcome to the New World

Professor ten Hompel, Managing Director of the Fraunhofer Institute for Material Flow and Logistics (IML) in Dortmund.

(tof) „It is my belief that we have all the technology we need to make the Fourth Industrial Revolution a reality today. What is lacking is implementation in the form of suitable devices and systems.“ The statement is by Prof. Dr. Michael ten Hompel, Managing Director of the Fraunhofer Institute for Material Flow and Logistics (IML) in Dortmund.

Whether high-performance memory devices, processors, sensors, 3D cameras, or laser scanners: „The basic technology is there, and it’s becoming more and more affordable,“ explains Prof. ten Hompel, probably one of the most creative minds in logistics research. However, as the future Industry 4.0 won’t get by without cloud computing, integration possibilities with the „only pay what you use“ concept should be explored. „We have everything we need in this regard, as well. It all just has to be brought together,“ the expert points out. „Those who developed the first intelligent business systems for this will have the opportunity of being able to open up these new markets very quickly.“

But when is the right time to make the right IT investment? „I’ve become more

cautious in this regard,“ admits ten Hompel. The development rate has come to be so rapid that naming a specific time „would be difficult at present“. According to ten Hompel, Logistics 4.0 is a matter of superexponential developments. „The amount of logistics data increases a thousand fold every ten years. That’s one million times more than 1994.“ This speed will continue to increase,“ explains ten Hompel.

The intelligent migration of cyber-physical systems to logistics systems

Whether robots or intelligent glasses – ten Hompel sees an almost vertical rate of technological development: „New generations of processors, energy harvesting in the nanoampere range (editor’s note: this refers to the collection of energy from the environment for intelligent containers), or new sensors. If you consider the microsensors integrated in the cell phones of today, you can say we even almost have more technology at our fingertips than we can put to sensible use with software.“

However, that’s exactly what would be required, especially for the logistics industry and medium-sized logis-

tics companies. „We also have to use cyber-physical systems and their intelligence to migrate them to existing systems,“ emphasizes ten Hompel. His core message: „Cyber-physical systems must at least be capable of doing what the systems they replace can do.“

In response to the question of what is the best thing that logistics service providers from North Rhine-Westphalia, which are frequently medium-sized, can do in times of such a technology explosion, ten Hompel stresses: „It is important to deal with the issues. I’m not saying that you should launch something today or tomorrow. What I’m saying is: Deal with the issues now and prepare yourself for the future.“

Professor Michael ten Hompel

Prof. Michael ten Hompel (55) teaches Transportation and Warehousing at the University of Dortmund. As Managing Director of the Fraunhofer Institute for Material Flow and Logistics (IML) in Dortmund, he is considered a visionary of progress in logistics. Fraunhofer IML has already seen many innovations through to market readiness, especially in intralogistics.

The professor, who teaches Transportation and Warehousing at the University of Dortmund, cites some concrete examples for this too: „Consider carefully whether you can already get parts of your software into the cloud today. Could it be worthwhile to offer your own apps here and there in order to get customers or even network partners involved? Take a look at the technology that’s available on the market. And prepare yourself. I’m convinced that the Fourth Industrial Revolution is coming, and it’s going to come fast. And those who didn’t prepare themselves will be caught off guard.“

In his colleagues’ opinion, ten Hompel’s revolution is more of an evolution. „They’re absolutely right,“ the Fraunhofer expert responds. „The introduction process is an evolution. But the technology that we’re getting now will be capable of networking and organizing itself independently.“ This, he says, is ultimately the actual revolution.

„We always worry about how we can use the technology coming from Korea or America in logistics,“ the 55-year-old professor describes. Using an iPhone in a warehouse, for example, makes little sense. „First of all, it’s relatively expensive because of all the things it can do. Second, it already gets scratched when it’s on your living room table,“ says ten Hompel. In short: It’s „entirely unsuitable“ for industrial purposes. This cannot be said of Google Glass, the glasses of the future, which until now has only been distributed to developers and therefore also to the Fraunhofer Institute for Material Flow and Logistics.

The warehouse worker of tomorrow will wear Google Glass

In conjunction with a new handheld, the Coaster, it was presented as a new



Animated illustration of the use of Google Glass and the Coaster – as potential tools for the warehouse logistics of tomorrow.

development for warehouse workers for the first time at the LogiMAT 2014 in Stuttgart. „At this year’s CeMAT in Hannover, we just introduced a version with a completely new hardware design suitable for mass production and a number of different new apps,“ ten Hompel explains. The Coaster is „a small, slim device similar to an iPod with four keys created for industrial surroundings,“ ten Hompel continues. „You can use it to do anything you need to do in a warehouse environment.“ And as for Google Glass: „I used to think it would never be used in logistics, that a German warehouse worker would never wear something like that. But after I wore the glasses myself, I can only say: outstanding, totally light, a great operation concept, and not distracting at all. At least less distracting than many a pick-by-voice solution.“ For ten Hompel, the warehouse worker of the future will also have the Coaster in his pocket and Google Glass on his nose.

The Coaster is a „Smart Assistant Device“ with the size of its namesake. It is an industrially compatible interface between human being and machine that’s inexpensive and easy to operate. Apps allow it to open up a new dimension for customer-specific applications. Apps are in planning for voice output, Google Glass, and much more. Thanks to its high-resolution camera, it can perceive its environment and recognize bar codes, human beings, and machines. It networks with Industry 4.0 cyber-physical systems, with the cloud, and with social networks.

„Besides that, we have a lot of people in logistics that need sturdy equipment that can also be operated with gloves and still link to the new world.“ According to ten Hompel’s estimation, both apply to Google Glass and the Coaster. „Now we have another new market, in this case for electronic systems. This is a completely new world, one which should ultimately achieve efficiency gains in a double-digit percentage rate. Not in mass production, but rather in highly volatile markets.“

Things aren’t only moving in virtual space, however. „The places where things are happening will also change,“ ten Hompel believes. „The logistics networks are becoming more and more volatile. If you see that Duisburg Harbor is considering going to Kamp-Lintfort, networking with Istanbul or China and integrating logistics networks there, it’s clear that we also need relocatable, transferable technologies more and more. This is a very essential business model, one that is also essential for the future of Duisburg Harbor.“



Warehouse logistics today.

Plant constructors use batch part system to complete projects efficiently



© Rolf Köppen

(frön) The particular achievement of modern logistics is not solely linking global networks. Today, the special challenge is far more about also getting demanding and varied consignments reliably, efficiently, and above all at the right time to any point on the earth. A calling to which the team headed by Daniel Conrad and Jens Neuß from duisport packing logistics (dpl) has responded in the best possible way.

Tight schedules, limited budgets, and increasingly extensive projects with numerous people involved worldwide are continually ratcheting up logistics requirements. Because of this, it is essential that every single part is correctly and clearly labeled. This is the only way in which every package and every delivery can be allocated correctly and uniquely to the respective workflow and schedule. Due to the fact that the number of parts and thus the requirements of the project plan can quickly become enormous, the customers of duisport packing logistics very often decide to utilize the batch part system, says Neuß. This refers to a flexible internet-supported software tool “that receives a sort of tree structure

through project-based transmission of order data, allowing leaves to sprout on the branches according to the content filled in the form of the individual order items,” explains Neuß. In this image, the tree is equivalent to identifying which supplier should deliver when and under which order number and order item. The leaves are equivalent to the itemization of which parts the order item consists of exactly. “And the blossom is formed by the checks for whether all the batch parts have also been sent by the ordered delivery date.”

This creates an important technical aide that guarantees the transparency and consistency of data. In addition, the plant constructor is not hold the responsibility in this system. Instead responsibility is borne by the suppliers and, of course, by dpl. “In the final analysis, only two factors are decisive for the simplicity of carrying out large projects by plant constructors. First, using the coordinating tool at an early stage of the project and announcing all details that have to be taken into account. The second point to be named here is the correct legwork done by the suppliers,” explains Daniel Conrad.

Specifically, this means that in such a project dpl contacts every single supplier and allocates them clear login data for a project. Then the supplier logs on to the batch part system web site, selects their orders and order items, and then records the individual parts that will be delivered under the order items. From this data, dpl subsequently generates the labels and sends these to the supplier. When all the parts are labeled and packed according to the delivery conditions, the supplier prepares a ready-for-shipment notification using their online access. At this moment, the notification also goes to the carrier, the plant constructor, and dpl. Thus there are no time restrictions when shipping the goods.

Complex benefits of the system

In addition, the batch part system is used in a much more complex manner today than was originally planned. Daniel Conrad reports that plant constructors use the system to carry out a completeness check of the plant parts to be delivered. They also automatically release supplier invoices on transmission of their ready-for-shipment notifications.

While dpl is also engaged as the export packer, the further identification of the materials on goods receipt, in interim storage, or when packing is still achieved using a scanning process. On the one hand, this saves time, and on the other hand, a much more important reason for customers is that the names of the parts remain one and the same from the announcement of

the contents by the supplier up to assembly on the building site.

Another benefit: thanks to continuous and error-free documentation, everyone involved in the batch part system has clear documentary evidence. This prevents time and cost-intensive search procedures or, in the worst case, even subsequent deliveries or claims for damages. Any formalities required, such as customs clearance, can be completed quickly and without great effort. The aim is creating clarity and transparency within the complete supply chain, ideally from design through the transport paths up to assembly on the building site.

To do this, the specialists at dpl hold detailed preliminary talks with the customers and request details, wishes, and requirements for every project. With this information and their now extensive experience, they then submit a solution proposal for carrying out the project.

Experience that the Duisburgers acquired the hard way: 30 years ago, the port team had the task of having to deliver three identically constructed plants simultaneously to different construction areas in Iran. "And almost all the suppliers did not



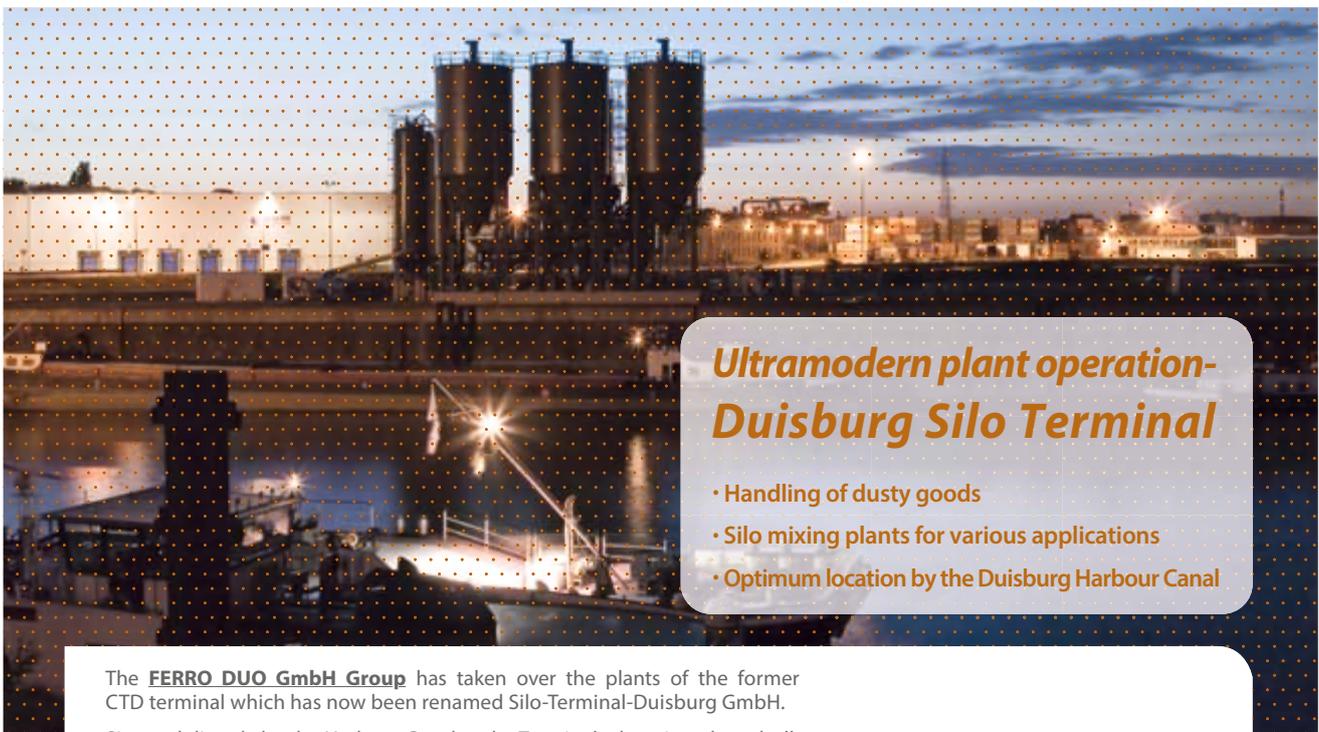
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deliver the parts separated according to construction areas. Quite the contrary, at times hundreds of individual parts, which now had to be allocated to the three construction sites, were in one set of prepackaging," reports Daniel Conrad. It was clear to those responsible for the project that the problem would get out of hand without a practicable idea. This was the moment the current batch part system came into being, which was already successfully applied to carry out the first project.



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The quick scan allows for an exact identification of goods.



Ultramodern plant operation- Duisburg Silo Terminal

- Handling of dusty goods
- Silo mixing plants for various applications
- Optimum location by the Duisburg Harbour Canal

The **FERRO DUO GmbH Group** has taken over the plants of the former CTD terminal which has now been renamed Silo-Terminal-Duisburg GmbH.

Situated directly by the Harbour Canal at the Terminal 4 location, dusty bulk materials continue to be handled in the existing silo mixing plants for all industrial and technical applications.

The Ferro Duo Group here contributes **many years of know-how** regarding bulk goods and their handling.

DUISBURG SILO TERMINAL

Research project SefLog for secure and efficient logistics processes completed



© Hamburger Logistikanstitut

(jfr) A variety of regulations and laws, numerous different perceptions, increased requirements made by customers and a wide range of offers: security in the transport chain is a current and complex issue, that poses great challenges to small and medium sized companies. A research project that has just been completed is intended to help in this regard: SefLog, controlled by duisport and supported by the Federal Ministry of Transport. The action recommendations have been summarized in a handbook.

SefLog was started in September 2010. The project, which is part of the German government's security research program, deals in particular with secure and efficient logistics processes through prevention, identification, and problem-solving strategies. The aim was increasing security in transport chains while retaining the efficiency of logistics processes. It was intended to develop appropriate measures for this according to the TOP approach. TOP stands for technical, organizational, and personnel measures.

Focus on prevention

The participants have now presented the results of the research project at a final workshop. In addition to duisport and the Federal Ministry of Transport, others

present included the Federal Ministry of Education and Research as the sponsor as well representatives of logistics companies, the specialist media, and research. The focal point of interest: the issue of prevention and an accompanying presentation by Christian Negele, Head of Legal and Projects at duisport. As Negele summarized, good prevention can minimize expenses in other places. Suitable measures for this, he added, included controls during ongoing processes or using surveillance equipment.

As the project partners unanimously concluded, prevention has to be seen primarily as organization and personnel-oriented. This is because the successful basis of an appropriate strategy can only be formed by closely meshing all projects in the technical, organizational, and personnel areas. One example of this is technical preventive measures. They are ultimately not sufficient alone; the handling of technology also has to be anchored organizationally – such as by training staff appropriately.

And there are also additional possibilities on top of that. The most important one is preparing a security plan by means of which the company can identify and analyze its respective needs and thereby also an effective preventive strategy in the first place. The basis

of such a security plan could be the merchandise value of the goods transported, insurance-relevant criteria, the frequency of security-relevant incidents, or departure locations and destinations, including routes. Decisive here with respect to ensuing competitiveness are the relevant cost-benefit expenses.

Training promotes security

Despite extensive technical measures, human beings may nevertheless prove to be a "weak point" within the process chain. In the event of an incident, they have to react appropriately to be able to initiate further steps. Therefore, companies should regularly train their staff and foster their awareness of the issue of security in order to simultaneously increase the acceptance of preventive measures. This type of training has primarily distinguished itself through high effectiveness (keyword: "security starts in the head") at relatively low expense. Both the costs and the time required are comparatively low. The general rule is that a good corporate atmosphere that appreciates the individual and praises the right actions is enormously important to retaining loyalty and a sense of responsibility. In addition, the basic motivation of employees is decisive for success when implementing preventive measures.

One starting point in prevention is also handling data and information cautiously and restrictively. Information should only be transmitted to the group of people for which it is required. Furthermore, restrictive access rights and the use of passwords can hinder access to sensitive data.

Planning transport routes is another preventive measure in the area of organization. When planning routes, for example, convoys can be formed, two drivers can be used, the route can be set with as little notice as possible, and unnecessary stops can be avoided during transports to improve security. In the course of expert interviews during the research project, it also became clear that the regular technical maintenance of vehicles can also prevent unscheduled stops and thus increase the security of supply chains. Moreover, there are already many technical solutions to secure facilities

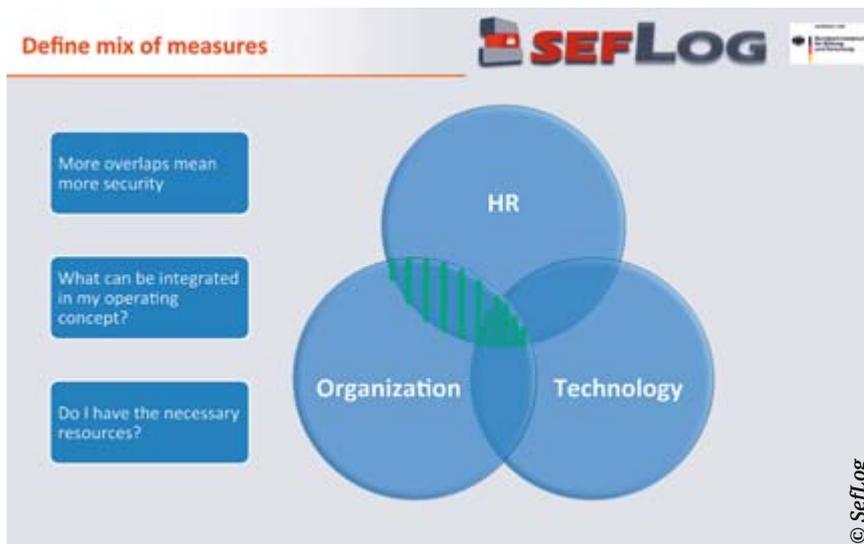
If nothing else, there are numerous certification possibilities concerning the issue of security. However, certifications implemented in a company have to be “lived,” and the effectiveness and efficiency of work processes have to be

Handbook compiled

The conclusion of the research project is therefore clear: Prevention primarily has to be seen as organization and personnel-oriented. Although there are already numerous technical measures that



employees must gain an appreciation for the importance of the issue of safety.



and containers available today – such as fences, access and container protection, lighting, camera surveillance, and alarm systems and facilities. However, it must be borne in mind that technical measures cannot ultimately offer comprehensive protection. In the final analysis, organizational processes also have to be complied with, otherwise there is the danger of “pseudo security”.

Creating the right standards

Preventive interaction with authorities and other companies – both security services and neighboring companies – can support the implementation of preventive measures. Together, those involved can develop a uniform and appropriate standard while simultaneously profiting from synergy effects in purchasing and planning.

continually reviewed. Certifications are, after all, not an end in themselves. They increasingly becoming an indispensable argument in terms of customer loyalty and may simultaneously generate value-added. The costs of certifications are amortized when loss incidents are minimized.

increase security in the transport chain, projects in the areas of organization and personnel can significantly increase security – at comparatively low financial expense. Alongside duisport and the Federal Ministry of Transport, a range of other companies and institutions have carried out research on SefLog. Under the coordination of the Study Society for Combined Transport (SGKV), as well as the Fraunhofer-Institute for Material Flow and Logistics, Kühne & Nagel, the TU Hamburg-Harburg, the Hamburg Logistics Institute, CSB Technology GmbH, the Federal Institute for Materials Testing, and the German Association Materials Management, Purchasing and Logistics also worked on the project.

The participants have summarized the corresponding measures in a handbook. This aids organizations in analyzing their own security needs, indicating potential action options. The publication entitled “Producing security – Action recommendations for securing the transport chain” is available in the Internet at www.seflog.de free of charge.





Seaport forecast unfavorable for North-Rhine Westphalia

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(gran) In the opinion of the Duisburg Lower Rhine IHK, a distorted database for the seaport forecast could lead to a skewed picture in national transport route planning. This assessment is now shared by the red-green state government of North-Rhine Westphalia and parts of the opposition, such as the FDP and the Pirates.

The tenor of the criticism: the development of goods transport in Rotterdam and Antwerp is assessed unrealistically in the seaport forecast in comparison with the North German seaports, particularly Hamburg. The result: this may endanger transport projects in NRW, for example the Iron Rhine, a planned stretch of track for freight transport from Antwerp to the Ruhr region. This is because the seaport forecast data of the national transport routes plan serves as the basis for decisions about such future projects and also for surveys on supporting container terminals, designating new port and logistics sites, and maintaining highways.

“Therefore, the State of NRW must ensure that such forecasts are coordinated with the neighboring countries of the Netherlands and Belgium,” demands Ocke Hamann, Chief Executive Officer and Logistics Expert of the Duisburg Lower Rhine IHK. The reason for this is that these countries are assuming significantly higher growth rates in their seaports. Freight transport volumes in the Western ports were decisive for the development of NRW, added Hamann. This is because a large proportion was distributed via handling centers, such as the Port of Duisburg, within the region and beyond.

Realistic handling forecasts required

Hamann’s primary criticism was that the growth forecast was reversed. While both Rotterdam and Antwerp had grown more quickly than Hamburg in the past, this has now been precisely inverted in the forecast up to 2030. “This clear difference is very questionable,” argues Hamann. “Therefore, the suspicion arises that two types of measurement

are being used, and also current market developments have been excluded.” For example, the deepening of the River Elbe has been taken in account in the growth forecast for Hamburg, although it will not be completed for some time. The development of the Maasvlakte in Rotterdam, which has already begun, has been accounted for according to the Federal Ministry of Transport, but what is questionable is the extent to which this has been done.

“Particularly in times of scarce budget resources for developing transport infrastructure, everyone involved is required to provide politicians with realistic and stable data,” adds Erich Staake, Chief Executive Officer of Duisburger Hafen AG. It has been known for years that two thirds of the containers exported from and imported to Germany are processed via the Western ports Zeebrugge, Antwerp, Rotterdam, and Amsterdam (Zara ports). Due to the capacity reserves that exist and hinterland links by ship and rail, their significance will grow further in the future.



The Antwerp-Zeebrugge train directly connects Duisburg with the Western ports.

The figures

According to the sea transport forecast, handling in German seaports will rise by 74 per cent from 2010 to 2030 or an average of 2.8 per cent per year. Thus handling volumes will grow from 269 million tonnes to 468 million tonnes. While an annual increase of 3.2 per cent has been calculated for Hamburg, the growth forecast in Rotterdam of 1.6 per cent and in Antwerp of 2.2 per cent per year is well below this figure. This calculation is justified by the high proportion of bulk cargo in both ports, the growth of which is assessed to be relatively low. From 2001 to 2010, average growth rates in Hamburg were, in contrast, 2.6 per cent per year, but in Rotterdam and Antwerp 3.3 and 3.8 per cent, respectively.

The Port of Rotterdam has also made a statement, reacting as follows: “Our figures for the port outlook in 2030 do not match the figures published by the German government in the sea transport forecast for 2030.” The port operators were very worried about whether cargo flow expected along the Rhine to and from the Western European seaports and the associated industrial interests, as well as the transport interlocking in these Federal states, has been sufficiently taken into account, they continued.

Business doubts have since reached politicians. The criticism of the seaport forecast has already been an issue discussed in the Transport Committee of the State Parliament of North-Rhine Westphalia. NRW Transport Minister Michael Groschek (SPD) has already communicated with Federal Transport Minister Dobrindt (CSU) about this. “There is movement in this matter,” explains Hamann. He expects an appropriate adjustment of the forecast.

Current forecast unfavorable for NRW

The FDP parliamentary party had initially taken up this issue in the State Parliament. Then, in January, the parliamentary parties of the SPD, the Greens, and the Pirates added themselves to the application. “The reversal of the growth con-

ditions calculated in the sea transport forecast 2030 between the German seaports and the seaports in Belgium and the Netherlands, which are particularly important to NRW, is incomprehensible,” is the wording in the application made by FDP members of parliament Christian Lindner, Christof Rasche, and Holger Ellerbrock. They added that it can only be explained in that the data on which the forecast is based has not been compared with our neighboring countries and assumptions have been made that necessarily lead to a distortion of the results. “If

this sea transport forecast 2030 remains unchanged as the basis of future transport route planning, this would result in considerable disadvantages for the State of NRW and its seaport connection through transport projects such as the Iron Rhine, and that to the benefit of Northern German states,” states the application. Now they want to work together towards “the adequate inclusion of the diverse European transport linkages and logistics chains in the forecast of port-hinterland transport on the basis of transparent and uniform criteria.”





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Industrial location “D” living from its reserves

(tof) Prof. Alexander Eisenkopf from Zeppelin University in Friedrichshafen is sure of one thing: German transport infrastructure has been chronically underfinanced for years. “Germany is living from its reserves now,” says the holder of the chair for economic and transport policy. He above all demands that the modes of transport inland waterways and rails be taken much more into account in the allocation of investment funds.

In Eisenkopf’s opinion, the investment gaps in road transport – despite higher income from truck tolls – are leading to a repairs backlog. This backlog cannot be reduced by funds from the growth package because raising the investment budget was a flash in the pan. And the mix of the political agenda, which seeks to maximize votes, and the preference of voters for expenditure on consumption (and not for investments with long-term effects), makes further measures necessary in addition to reorganizing the provision of infrastructure. “The principle of user financing should be implemented where appropriate,” believes the

expert. Eisenkopf’s current “finding” on “Industrial location D” has taken shape accordingly: “state failings in infrastructure policy.” Brave statements for a professor who is one of the select group of appointed members of the scientific advisory board of the Federal Minister of Transport.

In his opinion, the new road repair costs report also raises some questions, according to which truck toll rates on autobahns would have to be lowered. In order to compensate for the loss of income, at least in part, it is intended to reduce the toll threshold to 7.5 tonnes, increase fees for external costs, and extend the road network subject to tolls by around 1,000 km of four lane trunk roads. “But this is not enough to compensate the expected toll losses,” says Eisenkopf.

Toll plans have to be carefully checked

The possibility of further burdening truck transport with higher toll rates is definitely ruled out in his assessment. “Truck transport is already hugely burdened by tolls, vehicle duty, and mineral oil tax.

Admittedly, car transport also pays the latter, but it doesn’t have to bear any tolls,” says Eisenkopf. “The question is whether we really want to levy tolls on the whole truck road network at the rates calculated in the report. From the view of the economy as a whole, burdening car transport would definitely make more sense and be more balanced.”

Eisenkopf also does not think the proposals brought forward by SPD politicians to collect a truck toll on all minor and district roads are a good idea. “The bureaucratic effort involved is immense and the economic effects are counter-productive.”

The fact that trucks have been caught in the cross hairs in this way also has to do with the poor image of road freight transport in public opinion. Obviously those who represent the image of road freight transport have not succeeded in communicating the benefits of the mode of transport politically, judges the academic. He adds that lobby work seems traditionally to be somewhat weak and rather inflexible. He continued that at the time of

the introduction of tolls, fundamental opposition was attempted, but finally it achieved nothing. Additional burdens for trucks, in contrast, were probably popular among voters, and politicians willingly implemented these, Eisenkopf conjectures..

In contrast, he evaluates the discussion about a car toll for foreigners as a “fantastic diversionary tactic” to “avoid dealing with Germany’s really urgent infrastructure problems” in the hot phase of the election campaign. For Eisenkopf it is clear: “The car toll for foreigners is not a suitable instrument for driving forward the financing of transport infrastructure.” Even with revenues of € 500 million and more, as some estimates want to believe, the collection and administration costs would eat up the majority of this income. It was a zero sum game, he surmises.

This is in contrast to expanding the truck toll to units less than 3.5 tonnes, which the Bodewig commission proposes. Admittedly, this would put money in the coffers, but it could affect the CEP market, for example. This market combines transport between the hubs with heavier vehicles and carries out distribution transport with smaller vehicles that could be caught by lowering the threshold. “Evasive reactions to lighter vans would be pre-programmed there, of course,” believes Eisenkopf. He continues that, from a political point of view, this burden was opportune, however – with politicians claiming “This market is growing so dynamically, it can bear it.”

Infrastructure is an issue throughout Europe

Developing the infrastructure is not just a national issue, however. From an EU point of view, the intention is to develop



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an efficient infrastructure out of corridors, primarily on the rails. But according to Eisenkopf, there is not enough money for this. “The funds that the Commission can contribute are not in relation to the overall volume of the TEN planning.” The EU relied to a great extent on the national states planning their own investment projects for this, he claims. However, he adds, the national states realized primary projects that were of benefit to their own economies. They were less interested in the superordinate effects. “Obviously interests diverge and therefore the TEN issue is only moving forward sluggishly,” Eisenkopf confirms.

According to the expert, while there were transport policy guidelines in place, e.g. in the form of white papers, these had never been realistic – neither the 2001 white paper nor the new edition. “When assessing the first transport white paper, the EU Commission should have admitted that the whole thing was ultimately

Prof. Alexander Eisenkopf (51) has been a professor at Zeppelin University in Friedrichshafen and has held the “Zeppelin Chair for Economic and Transport Policy” since 2003. His areas of research are transport policy, transport, and logistics. He has been a member of the scientific advisory board of the Federal Ministry of Transport since 2006. After studying Business Operations and Economics in Mannheim and Gießen, Eisenkopf took his doctorate in 1994 with work on just-in-time production strategies and qualified as a professor in 2001 with a study on road use charges.

a flop,” reminds Eisenkopf. The second white paper in 2011, which was ultimately subject to the climate policy 2 degrees target, did not reveal how the visions described should be achieved in detail. “The EU is shying away from further operationalization, because then there would have to be considerable discussion about regulatory interventions in the markets.”

Eisenkopf sees an important task of the Federal Ministry of Transport to be attaining closer proximity to reality in infrastructure planning. For the upcoming reform of German Federal transport route planning, he would like a realistic traffic forecast and an abandonment of controversial flagship projects. Instead, priority should be given to measures that retain what already exists with the target of adequately taking the modes of transport inland waterways and rails into account when allocating investment funds. “Without additional funds and reforms of the institutional frameworks of infrastructure policy, the Federal Minister of Transport could be promoted to become a minister of virtual mobility,” he summed up.



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syncreon is now also making a noise as a VW logistics service provider

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(gran) It has a symbolic character: in the proper style with work gloves, but in a “business outfit” - the first crate of car components is packed for shipping overseas. Michael Neumann, President Automotive of syncreon, Astrid Lühring, Head of International Logistics Material at Volkswagen AG, Erich Staake, Chief Executive Officer of Duisburger Hafen AG, Duisburg’s Mayor Sören Link, and Jordan Corynen, Director Germany of the real estate developer Goodman, gave a helping hand on the occasion of the ceremonial opening of the new VW logistics center in Duisburg-Kaßlerfeld at the beginning of April. This did not merely provide a nice photo for the press. The teamwork here also represents the start of a new business. In the future, the car industry will have single components assembled and shipped for production overseas from the Port of Duisburg. Alongside Audi in logport II, the parent company with its VW brand is now also starting with an export hub. The logistics service provider is the German subsidiary of the US corporation syncreon.

“We are delighted to have been able to gain a further leading international automotive manufacture for the logistics location duisport,” said Staake at the

opening. “Our full-service approach, in which we bring together customized areas with flexible transport and services, has proved convincing once again. The inauguration is a further step in developing the Port of Duisburg into a competence center for the automotive industry.”

Duisburger Hafen AG did not just provide the plot of land for the 24,000 square meter export hub, it has also taken over all the transport logistics for Volkswagen. This includes in particular transporting the containers to the seaports Rotterdam and Antwerp, which is done in an environmentally friendly manner using combined transport via the Duisburg terminals. For this purpose duisport first put a suitable solution package for this purpose together with Goodman.

Goodman has invested more than ten million euros in the facility, which was specially tailored to the requirements of the car industry. The warehouse and logistics area includes the loading and unloading zones typical for the sector in a tunnel structure with around 3,000 square meters and a 1,000 square meter outside warehouse that serves as a loading area. The tenant of the logistics

center is in fact VW. But as a logistics service provider syncreon will use the real estate in the future for providing logistics services to the 30 overseas plants in the Volkswagen Group.

Flexible property design guarantees optimal efficiency

“We are very pleased about the trust of VW,” said Neumann. “With a hall depth of more than 100 meters, the property makes it possible to optimally map the whole automobile logistics process chain from goods receipt to shipping. Due to the flexible design of the property, we can prove our efficiency at the location and make exactly the capacities available every day that are required.”

For this purpose, the company is even investing one million euros in internal equipment, adds Michael Schüttrumpf, Vice President of Operations Central Europe at syncreon. The handling capacity will be around 400,000 cubic meters a year. It is intended to process up to 1.8 million packages from here per year. That is equivalent to around 100 overseas containers per week. More than 4,000 different parts will be packed in the process, from the cover for the loudspeakers up to

the air conditioning console – regardless of whether it is for the Passat, Golf, Polo, or one of the exotic VW brands Gol, Santana, and Magotan. Up to 230 new jobs will be created in Duisburg.

CKD logistics are a growing sector because many sales markets abroad are booming, reckoned Schüttrumpf. “We want to grow further with VW here. CKD stands for Completely Knocked Down. Car parts and components are packed in CKD plants for export to car makers’ overseas plants, where they are then put together to make cars.”

The logistics service provider syncreon already has seven automotive locations in Germany, mostly CKD plants. The company has only been active in this country since 2000 (then as TDS Logistics). Today it employs well over 2,000 people in this sector in Germany alone. In addition to Audi and VW, it also includes BMW, Ford, and Daimler among its customers. syncreon operates one of the largest CKD facilities for BMW in Neutraubling near Regensburg with about 1,000 employees. Schüttrumpf puts a figure on automotive sales in Germany in the low hundred millions. syncreon wants to open a new CKD location for Jaguar and Land Rover in Hamburg this year.

Audi is in turn one of syncreon’s largest automotive customers in Europe. For example, the company operates all the plant logistics for the VW subsidiary in the Hungarian engine plant Győr with over 2,000 employees alone, 200 of whom are in the CKD sector. It also maintains a CKD plant for Audi in Wunstorf. In logport II, however, syncreon did not get the job. Schnellecke Logistics is Audi’s partner there. But syncreon has now been able to land an order from the parent company for the first time.

Syncreon is, however, giving up a CKD plant in Emden that works for Audi with



From left to right: Michael Neumann (President Automotive, syncreon), Astrid Lühring (Head of International Logistics Material at Volkswagen AG.), Erich Staake (Chief Executive Officer of Duisburger Hafen AG), Sören Link (Mayor of Duisburg), and Jordan Corynen (Director Germany, Goodman Germany GmbH) at the inauguration of the logistics center for Volkswagen

around 100 employees. The decision of the VW Group on Duisburg as the location for Audi could also have effects on the expansion plans for Wunstorf in Lower Saxony. These are still being reviewed, said Schüttrumpf.

New location means shorter transport routes

“We had a close look at the supplier structure and came to the decision that the Ruhr region is a good location economically and ecologically,” said the VW logistics service provider, justifying the decision for Duisburg. However, the fact that the supplier focal point is in North-Rhine Westphalia, thus making transport routes shorter, may also have played an important role.

VW and Audi had already made contact with the Port of Duisburg at the beginning of 2013 when looking for an ideal location for CKD logistics centers. It was possible to find a plot of land for Audi

in logport II really quickly. The Port of Duisburg was the investor here, however, and it leases the facility, which has created 500 new jobs at the location. Due to a lack of space, it was not possible to locate VW here as well. Finally, Markus Teuber, Chief Representative of Duisburger Hafen AG, had a bright idea: old industrial derelict land would be renovated, developed, and made available to Goodman to build the VW property. Goldbeck then put up the building for Goodman in just under seven months.

Logistics service provider with sales of a billion

The US corporation syncreon from Auburn Hills near Detroit, Michigan, which specializes in technology and automotive logistics, emerged in 2007 from a merger of the Irish company Walsh Western with the US company TDS Logistics. A perfect complement: while Walsh Western with its headquarters in Dublin and with large customers such as Dell, Epson, and HP specialized in the technology sector, TDS Logistics, with its headquarters in Auburn Hills, concentrated on the automotive sector. The contract logistics service provider has 100 locations in 20 countries worldwide, of which 35 locations are in Europe and 13 in Germany. With more than 12,000 employees, syncreon achieves sales of over 1 billion dollars worldwide. One half of these sales are distributed to each division. syncreon is owned by a US financial investor and the Irish family Michael and Brian Enright, the latter acting as CEO. His father, Michael, chairs the supervisory board.





The box for dry transports

Duisburg ingenuity protects against container sweat

(frön) Not home and dry, but in dry containers. This is how customers of duisport facility logistics GmbH (df) can send their goods worldwide. This is made possible by a simple but pioneering invention. The duisbox has solved a task that had previously posed considerable problems for logisticians. The greatest danger to international trade is not accidents, wars or pirates. The worst damage is caused by “container sweat”. This is caused for example by damp handprints or small drops of water.

During journeys that can sometimes take weeks, merchandise can be damaged in worldwide transport. In order to move perishable goods over long distances and times, Napoleon initiated a procedure intended to preserve food as early as 1795: the can was born. This ingenious invention allowed cooked and thus sterilized food to be preserved in an airtight container. Previously, such food had to be packed into more or less airtight containers (such as amphora) or be salted, and that for thousands of years.

The technical progress of the past few decades had made it possible to send goods ever more quickly and over ever

greater distances. During transport, carriers are faced with temperature fluctuations in addition to the already considerable logistical challenges that exist on top of that. Frequently, consignees and consignors have experienced unpleasant and above all expensive surprises at the destination. “I know about a luxury car that was transported in a container from New Zealand to the Far East. When it was opened, the experts identified mold that was as thick as a finger which had formed on the driver’s seat and had spread in the rest of the interior,” reports Norbert Greiwe, who is responsible for the duisbox at duisport facility logistics. The reason? When getting out of the car, a driver had briefly put his sweaty hand on the leather. Over the next few weeks, moisture and warmth had provided the spores with the best conditions for growth.

Higher temperatures, more moisture

Containers are subject to great fluctuations in temperature on their journey. Duisburg, the beginning of February, conditions during loading: eight degrees Celsius, slight drizzle. The merchandise is closed dry in an almost airtight box. But the air contains moisture – about 45 per cent. Middle of the month, stopover

in Port Said: the sun is beating down, the outside temperature is well over 30 degrees Celsius. The humidity reaches almost 90 per cent. The amount of moisture also rises considerably in the few hollows in the container. Greiwe shows just how much on a test sheet. Destination: Mumbai, monsoon season. In the humid heat, 26 degrees Celsius feels more like 38. Ideal for mold and other fungus. Because the changes have been enormous in the container too. Warm air absorbs water, a cold atmosphere produces rain. This is how our weather works. And these processes are also at work “en miniature” in the metal box. The result? Water droplets form and attack paper, wood, and food. The combination of warm air and moisture can even corrode steel.

Thanks to precise analyses Greiwe can put an exact figure on the quantities. “If we pack at 20 degrees Celsius and 60 per cent humidity, 10.3 grams of water are contained in every cubic meter of air. In the Far East, at 35 degrees Celsius and 90 per cent humidity there are as many as 35.6 grams of water per cubic meter of air, which is three and a half times the amount. If the temperature here in Duis-

burg falls from 20 to 12 degrees Celsius, water drops form in the container. In the Far East the thermometer only has to fall by two degrees Celsius!”

This problem is familiar to logisticians from bitter experience. But up to now the problem has been tackled in a rough and ready manner with flows and fibers. Or with the silica gel that often falls out from leather or technical items when opened by customers. But these efforts have been rewarded with little success. Silica only has an absorption proportion of 30 per cent – and releases the moisture again in warm conditions under certain circumstances.

Salt is the solution

dfl has also had bitter experiences, as Greiwe reports. “We made efforts in the area of drying agents for some time, but we did not have the highest efficiency,” he said, explaining the situation. “Our Technical Director Thomas Schlipköther then gave me the OK to develop a more efficient product for the market. And this became the duisbox.”

Greiwe’s best man, a chemistry graduate, gave him the decisive clue. He reminded him that a salt molecule is hexagonal. Thus a water molecule can dock on each corner. Each additional molecule forms a drop as brine – and thus cannot condense as moisture.

The idea: the salt is placed in a permeable container that absorbs the moisture. If this is full the brine drops into a second – this time leakproof – container and cannot evaporate again. Sounds simple – and it is too. It’s just matter of getting the idea in the first place.

Deller-Plastics from Breckerfeld developed the right design. “A very good, innovative SME,” Greiwe still enthuses even today. They agreed by handshake



the European patent for the pioneering idea would remain with duisport, while the Westphalian company took over production.

After some experiments, Greiwe decided on salt from calcium chloride (CaCl). One kilo of this salt can extract 1.3 liters of water. “This is a phenomenal amount,” says the developer, still amazed today about the high performance of the salt. The material is placed in two sacks in the upper box with holes in it, which in turn is placed in the condensate collector containers. Taken together, both are only slightly larger than a box for women’s boots and weigh just a few kilos. The 1.9 kilos of salt placed in every duisbox absorb up to 2.5 liters of water! Before loading a container, the two airtight packed parts of the duisbox are opened and hung on the inside wall of the container. And so everyone understands the unusual idea, the required instructions are enclosed in illustrated form.

No insurance without duisbox

That initial trial transports with cocoa

beans were a resounding success. The insurance company that took part ordered several thousand duisboxes on the spot. Since then they have been mandatory – no box, no insurance and no transport. This is an investment that is worth it for everyone involved. The insurer has to pay for far fewer claims. The companies pay less for their policies, can increase their profits, and gain a better market position due to lower costs. And duisport can convince customers with an additional service. This impresses not only food carriers but also carmakers. And it can definitely influence decisions on where to locate, says Greiwe proudly.

Incidentally, demand has been particularly strong from hot and humid areas. “We are supplying between one and two 20 foot containers with 2,508 duisboxes each for cocoa transports from Africa,” reports the expert. Word about the benefit has quickly got around locally. In Duisburg even sensitive steel coils are now protected by the duisbox. The attention of large logistics companies has also been attracted. Of course, Greiwe has the duisbox produced in the company color of yellow or green instead of the blue usual for duisport. Charities are also pleased because they receive the box free of charge for international uses. And one or two have even found their way into private hands: in damp cellars and utility rooms or in motorhomes over the winter.

But despite all this enthusiasm, Greiwe remains reserved. “Our idea is very time-intensive and costs money, of course. But in comparison to the expenditure involved in treating mold or in rectifying even worse damage, the duisbox is a solution that always pays off.”

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Pulsating colors to enjoy at the Duisburg Parallelhafen

(frön) It's going to be colorful at the Parallelhafen this summer. The Duisburg artist Martin Schmitz is planning a project well worth seeing at the gap in the dyke on the street Am Schlütershof. "It is an unbelievably powerful place, which I want to overlay with color. I want to make the color pulsate." To do this he is going to colorfully paint the steel profiles of the sheet pile. Schmitz: "Color is a notation for me. Whether I am working on paper or, like now, with another background, I can make paint runs, thus generating communication between the colors and the observer." The "pulsating colors" should be complete by the end of summer.

The dyke breach virtually forced itself on the project. The area is relatively large, but due to its structure the steel sheet is divided into around 300 small segments. In the design, however, the artist has limited himself to 16 colors. Why? "That's quite enough for human perception to work at full capacity. Individual intervals will emerge. There is the term triad in music for this. For example, I am using five blue tones that I will make run and pulsate."

The Duisburger also does not hesitate for a second in answering the not always easy to answer question about the point of the art initiative: "It should be enjoyed". And not only by the observers. "First and foremost I enjoy it," admits Schmitz candidly with a smile. A contagious feeling. When looking for partners for the initiative, he met Katja Zappe from the association "hafenkult e.V." "We had fun with the project from the beginning. Since then around 20 to 30 people have become involved and they are all enjoying it," reports the honorary head of the cultural institution - admitting that it was sometimes a stressful task campaigning for the project and realizing it. "But the enjoyment has been passed on to everyone." The companies in the port were also enthusiastic. Not only were they very open and let themselves be convinced by the idea, they also partly shared the costs. "This was also a very nice experience that we hadn't expected."

Making the location unique

But however moving and exciting the "pulsating colors" may be, they should also have a deeper meaning. Schmitz:

"I'm overlaying a shape as a gray surface with a colorless background and then I'm making the location unique. It is really important to me to show an example of how this is feasible. Cities can be changed. We don't have to accept a gray area, we can bring color to life and make it play." In this regard, Schmitz would also like "Pulsating colors" to be understood as a political demonstration.

It is not the Duisburg resident's first initiative of this kind. He has painted the backs of shipping signposts with bumblebees and skylines between Oberbürgermeister-Lehr-Brückenzug and the confluence of the Ruhr. "That's 15 signposts that have a meaning connected with the water." The backs used to be gray, however. Now, for example, two bumblebees and the Berlin skyline wait not far from the Rhine Orange sculpture to be discovered by walkers. "I had the chance to use the gray surfaces there, to redesign them. All that was missing was a bit of color and now a new place has been created."

In contrast, the pulsations in the Parallelhafen were inspired directly by the sur-



© Martin Schmitz

An illustration shows what it will look like when complete.

rounding area. “What does ‘port’ mean? Movement. Change again and again, unbelievable masses are transported through the landscape. And these are slow, calm movements that you can perceive. If you’re there for too little time, you can get the impression that it’s static. But when you take the time, you discover the dynamism and the unbelievable power that exists here.”

Contact with “hafenkult” was made at an exhibition for this purpose. Katja Zappe had also attentively followed the creation of the bumblebees along the waterway. “Also as someone who is so much in love with this place and the port,” she explained. Four years ago, she quite deliberately decided on what was then an empty building on the street Am Parallelhafen, which is the home of the association today – and also to prove that the port belongs to the city, but allows itself to be used in varied and sometimes surprising ways.

“I had the idea of accommodating artists and giving them the possibility to work here. All that in combination with an exhibition room.” Today, “hafenkult” does not just draw attention to the artists working in their ateliers at Am Parallelhafen 12: the institution has also become an attraction for regional and national artists who apply to exhibit their work at this extraordinary location.

Everyday port life as part of the complete work

Distinguished by a deep passion for art, a place has emerged that means a great

deal, and not just to Katja Zappe. “Also to the artists who have found a place for themselves here. And the people who come here and tell us again and again how great it is to find something here they hadn’t expected. That gives us all the strength to carry on and drive our projects further forward. So I also found it fascinating that an artist like Martin Schmitz would come from the outside and say: I’ll take this place and turn it into something special.”

The “Pulsating colors” should be finished by the end of summer. Among the reasons the project is taking so long is

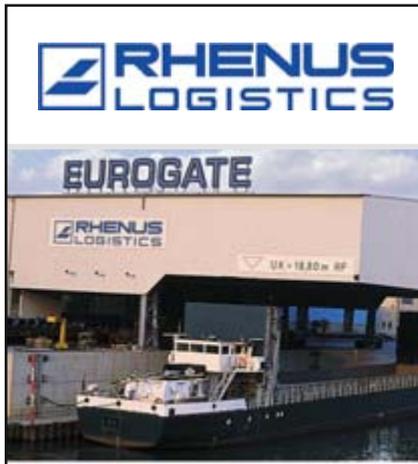
that port traffic, with its heavy trucks, makes working on weekdays impossible. But then they too will contribute to the special effect of the work in the same way as the rest of the busy port life.

This is a special opportunity for art lovers. Not only can they experience the creation of the work up close. Martin Schmitz is almost always pleased about visitors and encounters from which something new emerges. But only, he qualifies immediately, when his work allows it, adding with a smile: “But I can actually always do with a an artistic break.”



© hafenkult e.V.

Martin Schmitz (center) explains the further procedure.



Together with Passion

- Logistics with full service from one source at an ideal location in the harbours of Duisburg and Wesel. Transshipment places at the outer harbour and the Hochfeld south harbour with connections to water, rail and road transport. Handling of goods up to a unit weight of 300 t.
- Storage on open-air ground and in multi-functional halls - 100,000 m².
- Processing of transports of conventional goods and containers by inland water and ocean transport, rail and truck.



Rhenus Scharrer GmbH

Transshipment - Forwarding Agency

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LINER CONNECTIONS

INLAND CONTAINER TRANSPORT

International	from Duisburg	Shipping Company	Terminal	Ship type*
Belgium				
Antwerp	2 x per week	9	DeCeTe	B
Antwerp	5 x per week	6	DeCeTe/DIT/ D3T/GWW	B
Antwerp	3 x per week	4	DeCeTe	B
Antwerp	2 x per week	1	RRT	B
Niederlande				
Rotterdam	4 x per week	5	DeCeTe	B
Rotterdam	5 x per week	6	DIT/D3T	B
Rotterdam	2 x per week	1	RRT	B
Rotterdam	5 x per week	9	GWW	B
Rotterdam	5 x per week	4	DeCeTe	B

SEA-GOING CONTAINER TRANSPORT

International	from Duisburg	Shipping Company	Terminal	Ship type*
Great Britain				
Hull, London	5 x per week	11	DeCeTe	B/S
Tilbury	4 x per week	11	DeCeTe	B/S
Grangemouth (Schottland)	1 x per week	11	DeCeTe	B/S
Russia				
St. Petersburg	7 x per week	3	DeCeTe	B/S
Finland				
Helsinki	3 x per week	3	DeCeTe	B/S
Latvia				
Riga	3 x per week	3	DeCeTe	B/S
Lithuania				
Klaipeda	3 x per week	3	DeCeTe	B/S
Kazakstan				
via Riga	3 x per week	3	DeCeTe	B/S
Ukraine				
via Klaipeda	3 x per week	3	DeCeTe	B/S

* B: Barge, V: Vessel (Short Sea), B/V: Barge/Vessel

All data in the shipping list are based on information provides by the shipping companies.

LINER CONNECTIONS

CONVENTIONAL SEA-GOING TRANSPORT

International	from Duisburg	Shipping Company	Ship type*
Denmark	weekly	2	S
Great Britain			
River Humber-ports	daily	8	S
Sutton Bridge, Flixborough	1 x per week	2, 5, 10	S
Norway			
Horten, Kristiansand, Sandnes, Bergen, Trondheim			
Frederikstad, Stavanger, Aalesund	weekly	13	S
Sweden	weekly	2	S
North-Spain	two-weekly	2	S

TRAMP/TRANSPORT PROJECT CARGO

CONVENTIONAL SEA-GOING TRANSPORT - Regular sailings upon request

National	Shipping Company
German Baltic Ports (e. k. Kiel, Wismar, Rostock, Stralsund)	2, 8, 10, 12

International	Shipping Company
Denmark (e. g. Fredericia, Kopenhagen, Odense)	2, 8, 10, 12
England (e. g. Grangemouth and all british Seaports)	2, 7, 8, 12
Finland (e. g. Saimaa-basin; Ports on the South and West Coast)	2, 8, 10
France (e. g. Bordeaux, Caens, Le Havre)	2, 8, 10, 12
Greece, Italy, Northern Africa all Ports on the Mediterranean Sea	2, 8, 10
Ireland (e. g. Cork, Drogheda, Fojnes)	2, 8, 12
Lithuania, Latvia, Estonia, CIS Countries all baltic Countries/Seaports	2, 8, 10, 12
Mozambique	8
Norway (e. g. Oslo)	2, 8, 10, 13
Poland (e. g. Danzig, Gdynia, Stettin)	2, 8, 10, 12
Portugal (e. g. Aveiro, Figueira, Leixoes, Lissabon, Setubal)	2, 7, 8, 10, 12
Russia (e. g. St. Petersburg)	1, 8
Scotland	2, 8, 12
Sweden (e. g. Göteborg, Malmö, Sölvesborg, Stockholm)	2, 8, 12
Scandinavia	2, 7, 8, 13
Spain (e. g. Aviles, Bermeo, Bilbao, Pasajes, Santander)	2, 7, 8, 10, 12
Turkey, Black Sea	2, 8

SHIPPING COMPANIES

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3. Containerships	+ 49 (0) 203-51 86 93 35	christof.maas@containerships.de
4. H & S Container Line GmbH	+ 49 (0) 203-80 03 265	info@hs-containerline.com
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6. HTS intermodaal b.v.	+ 31 (0) 183-66 88 66	willemvaneijk@htsgroup.nl
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8. Rhenus Maritime Services GmbH	+ 49 (0) 203-80 4-247	info.rms@de.rhenus.com
9. Rhinecontainer B.V.	+ 31 (0) 78-62 51 555	info@rhinecontainer.com
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11. Samskip B.V.	+ 49 (0) 211-6 50 44 70	duesseldorf@samskip.com
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GWV	+ 49 (0) 203-31 85 622	gateway@rrt.container-terminal.de
RRT Rhein-Ruhr Terminal GmbH	+ 49 (0) 203-31 85 60	info@rrt.container-terminal.de



Together with Passion

- Shipping across rivers, seas and lakes with our ecological fleet of more than 20 coastal vessels.
- Transport of all kinds of products such as steel, paper, agricultural, general and hazardous goods.
- Conventional liner service between Duisburg and UK. Also to book as flexible door-to-door traffic.



Rhenus Maritime Services GmbH

Shipping · Chartering

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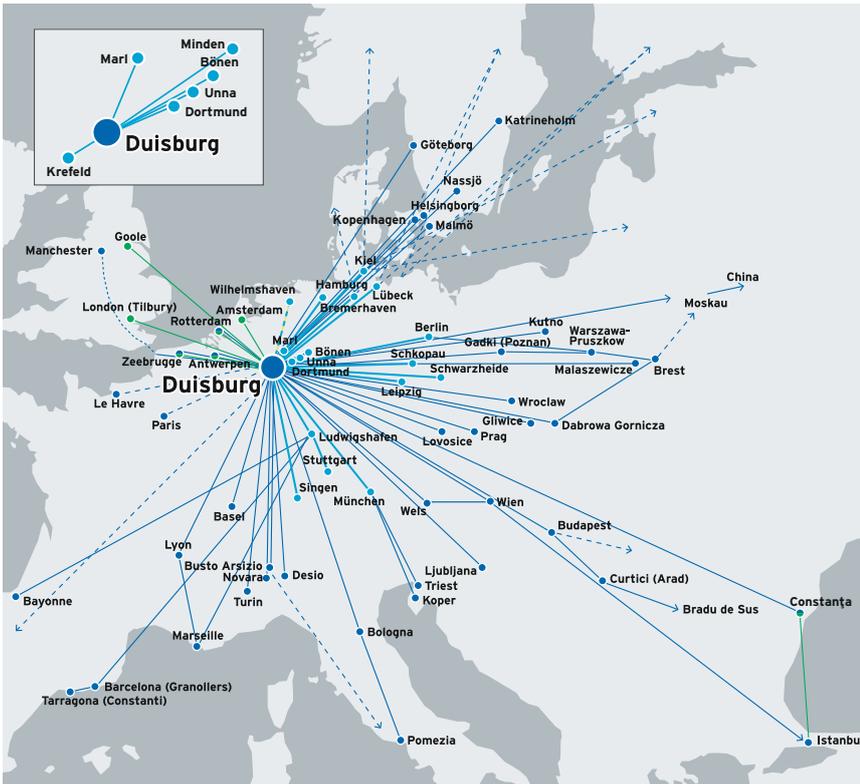
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www.rhenus.com

CONNECTIONS FOR COMBINED TRANSPORTATION

National	From Duisburg		To Duisburg		Operator	Terminal
	Dep.	Arr.	Dep.	Arr.		
Bönen	1-5	B	1-5	B	12	GWV
Bremerhaven-Nordhafen	1-5	C	1-5	C	2	DIT/D3T
Dortmund	1-5	B	2-6	B	2	DIT/D3T
Unna	1,3,5	A	1,3,5	B	12	GWV
Hamburg Süd-Waltershof	1-5	C	1-5	C	2	DIT/D3T
Hamburg-Billwerder	1-5	B	1-5	B	8	DUSS
Hamburg-Billwerder	6	C	6	C	8	DUSS
Kiel-Ostufershafen/Schwedenkai	2,4	B	1,3,5	B	8	DUSS
Kiel-Ostufershafen/Schwedenkai	6	B	-	-	8	DUSS
Leipzig-Wahren	1-5	B	1-5	B	8	DUSS
Lübeck-Skandinavienkai	1-6	B	1,2,4,5,7	B	8	DUSS
Lübeck-Skandinavienkai	1-6	B	1-6	B	13	HBB
Ludwigshafen (Rhein)	1-5	B	1-5	B	8	DUSS
Marl	1-5	A	1-5	A	2	DIT
Marl	1-4	B	1-4	B	2	DeCeTe
Marl	5	C	5	C	2	DeCeTe
Minden	1,3,5	B	2,4,6	B	12	GWV
München-Riem	1-4,5	B	1-5	B	8	DUSS
Schkopau	-	-	6	C	5	DIT
Schkopau	1-5	B	2-5	B	5	DIT
Schwarzheide	5	D	6	C	5	DIT
Schwarzheide	1-4	B	2-5	B	5	DIT
Singen (Htw)	1-5	B	2-6	B	5	DIT
Stuttgart	1,3,5	B	-	-	12	RRT GWV

International	From Duisburg		To Duisburg		Operator	Terminal
	Dep.	Arr.	Dep.	Arr.		
A - Austria						
Wels	1-5	B	2-4	B	8	DUSS
Wels	-	-	6	C	8	DUSS
Wels	-	-	5	D	8	DUSS
Wien-Nordwest (via Wels)	1-4	C	1-4	C	8	DUSS
Wien-Nordwest (via Wels)	5	E	5	D	8	DUSS
WienCont	1,3,6	C	1,3,5	C	5	DIT
WienCont	2,4,6	C	2,4,5	C	6	DIT
B - Belgium						
Antwerpen	1,3,5	B	2,4,6	B	2	DIT
Antwerpen	2,4	B	1,3,5	B	8	DUSS
Antwerpen	6	C	-	-	8	DUSS
Zeebrugge	2,4,6,7	B	2,4,6,7	B	2	DIT
Zeebrugge	2,4,6,7	B	2,4,6,7	C	2	D3T
CZ - Czech Republic						
Lovosice	1-4	B	1-4	B	8	DUSS
Lovosice	5	C	6	C	8	DUSS
Brno via Lovosice	1-4	C	1-3	C	8	DUSS
Brno via Lovosice	5	E	1,2,6	D	8	DUSS
Paskov via Lovosice	1-3	C	1-3	C	8	DUSS
Paskov via Lovosice	5	D	5	D	8	DUSS
Paskov via Lovosice	4	E	-	-	8	DUSS
Prerov via Lovosice	1-4	C	1-3	C	8	DUSS
Prerov via Lovosice	5	E	1,2,6	D	8	DUSS
Prerov via Lovosice	-	-	4	E	8	DUSS
Prag	2,4,6	B	2,4,6	B	9	DIT
DK - Denmark						
Kopenhagen	1-4	B	2-5	B	13	HBB
Kopenhagen	5	D	5	D	13	HBB
via Hamburg	1-4	C	1-5	C	8	DUSS
E - Spain						
Barcelona (Granollers) via Ludwigshafen					8	DUSS
Tarragona (Constanti) via Ludwigshafen					8	DUSS
EST - Estonia						
via Lübeck			Further connections		8	DUSS
FIN - Finland						
via Lübeck			Further connections		8	DUSS
via Rostock			Further connections		8	DUSS
F - France						
Bayonne via Ludwigshafen					8	DUSS
Lyon	1-4	B	1-5	B	8	DUSS
Lyon	6	C	-	-	8	DUSS
Marseille via Ludwigshafen					8	DUSS
Miramas	1,3,4	B	1-3	C	8	DUSS
Miramas	2,3	C	-	-	8	DUSS
Miramas	6	D	-	-	8	DUSS
H - Hungary						
Budapest	1,2,3,4,6	C	1,2,3,4,5	C	5	DIT
Budapest via Wels	1,2,3	D	1-2	D	8	DUSS
Budapest via Wels	4,5	E	4	E	8	DUSS

International	From Duisburg		To Duisburg		Operator	Terminal
	Dep.	Arr.	Dep.	Arr.		
I - Italy						
Bologna	1,3,5	C	1,3,5	C	7	DKT
Busto Arsizio/Gallarate	6	C	6	C	8	DUSS
Busto Arsizio/Gallarate	1-5	B	1-5	B	8	DUSS
Milano	2,4	B	2,4	B	7	DIT
Novara	1,3,5	C	1,3,5	C	3	HBB
Pomezia	1,3,5	B	1,3,5	B	7	DKT
LT - Lithuania						
via Kiel			Further connections		8	DUSS
LV - Latvia						
via Lübeck			Further connections		8	DUSS
N - Norway						
via Kiel			Further connections		8	DUSS
via Lübeck			Further connections		8	DUSS
via Göteborg			Further connections		13	HBB
NL - The Netherlands						
Rotterdam	1-6	B	1-6	B	1	DIT/D3T
Rotterdam MVTE	1-5	B	1-6	B	8	DeCeTe
Rotterdam RSC	1-5	B	1-5	B	5	DIT
Rotterdam RSC	1-5	A	1-4	B	8	DUSS
Rotterdam	-	-	1,3,5	B	12	GWV
PL - Poland						
Dabrowa Górnicza	-	-	-	-	5	DIT
Dabrowa Górnicza	4,6	C	1,6	E	8	DUSS
Dabrowa Górnicza	2,4	D	3,5	F	8	DUSS
Gadki (Poznan)	2,4,6	B	1,3	C	8	DUSS
Gadki (Poznan)	-	-	5	D	8	DUSS
Gadki (Poznan)	1,3,5	C	1,3	C	5	DIT
Gadki (Poznan)	1,3,5	C	5	E	5	DIT
Kutno	3,6	B	2,5	B	10	D3T
Pruszkow (via Poznan)	2,4	C	2	D	8	DUSS
Pruszkow	2,6	D	1,4,6	E	8	DUSS
Wroclaw	2,4	C	4,6	E	8	DUSS
Wroclaw (via Poznan)	1,3	D	2	D	5	DIT
Wroclaw	-	-	2	D	8	DUSS
RO - Rumania						
Constantia	3,5	B	1,5	D	4	DIT
Curtici via Budapest					5	DIT
Ploiesti via Budapest					5	DIT
RUS - Russia						
Moskau	3,6	-	-	-	14	DIT
via Kiel			Further connections			
S - Sweden						
via Lübeck und Kiel			Further connections		8	DUSS
Ålmhult	1-4	B	1-5	B	13	HBB
Ålmhult	5	D	-	-	13	HBB
Göteborg	1-4	B	2-5	B	13	HBB
Göteborg	5	D	6	D	13	HBB
Katrineholm	1-5	B	1-5	B	13	HBB
Katrineholm	6	C	6	C	13	HBB
Nässjö	1-4	B	1-5	B	13	HBB
Nässjö	5	D	-	-	13	HBB
SK - Slovakia						
Bratislava	1-5	C	1-3	C	8	DUSS
Bratislava	-	-	4,5,6	E	8	DUSS
Dunajska Streda	-	-	2,4,6	C	9	DIT
Cierna nad Tisou	5	F	3	F	8	DUSS
Zilina	1-5	D	1,2,6	D	8	DUSS
Zilina	-	-	3,4,5,6	F	8	DUSS
Zilina	-	-	1,6	E	8	DUSS
Kosice via Lovosice					8	DUSS
SLO - Slovenia						
Ljubljana	1,3	C	1,3	C	8	DUSS
Ljubljana	2,5	D	1,5	E	8	DUSS
Ljubljana	4	E	-	-	8	DUSS
Ljubljana	1,3,5	C	1,3,5	C	11	DKT
TR - Turkey						
Halkali via Wien	-	-	-	-	6	DIT
Istanbul (Penduk) via Triest	-	-	-	-	13	HBB
Istanbul (Penduk) via Triest	3	F	5,7	F	8	DUSS
Istanbul (Penduk) via Triest	2,5	G	4	G	8	DUSS
Istanbul (Penduk) via Triest	1,4	H	2,3	H	8	DUSS
Istanbul via Constanza	3,5	E	1,5	D	4	DIT
Tekirdag via Triest	3	G	4	G	8	DUSS
Tekirdag via Triest	2	H	7	J	8	DUSS
Tekirdag	1,3,5	F	1,3,5	F	8	GWV



Important combined water and rail destinations.

- National railway transportation
- International railway transportation
- Ship connections
- Indirect connections

- 1 - 7 = Monday - Sunday
- Dep. - Day of departure
- Arr. - Day of the arrival
- Op - Operator
- A - Arrival on same day
- B - Arrival one day later
- C - Arrival two days later
- D - Arrival three days later
- E - Arrival four days later
- F - Arrival five days later
- G - Arrival six days later

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1 DistriRail B.V.	+ 31 (0) 10-20 10-716	+ 31 (0) 10-20 10-795	info@distrail.nl
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3 Ewals Intermodal NV	+ 49 (0) 2065-89 3-0	+ 49 (0) 2065-89 31 99	joerg.wille@ewalsintermodal.com
4 EWNS	+ 90 (0) 212 293 2600		enver.gocer@EWNS-TR.com
5 Hupac	+ 41 (0) 90-6 95 29 20	+ 41 (0) 90-6 95 28 01	avalenti@hupac.ch
6 Interferryboats	+ 32 (0) 32 70 27 00	+ 32 (0) 32 70 97 74	edwin-schepens@interferryboats.be
7 Italcontainer	+ 39 (0) 5166-5 10 35	+ 39 (0) 5166-5 09 91	an.gennari@fslogistica.it
8 Kombiverkehr	+ 49 (0) 69-79 50 50	+ 49 (0) 69-79 50 51 19	Info@kombiverkehr.de
9 Metrans	+ 42 (0) 267 29 31 36		hornik@metrans.cz
10 PCC	+ 48 (0) 585858 210		sales.intermodal@pcc.eu
11 Rail Cargo Austria	+ 43 (0) 5 77 50	+ 43 (0) 5 77 50 700	info@railcargo.at
12 Rhein-Ruhr-Terminal Gesellschaft	+ 49 (0) 203-31 85 60	+ 49 (0) 203-31 85 622	info@rrt.container-terminal.de
13 Samskip	+ 31 (0) 38 385 2623	+ 31 (0) 38 385 2627	niels.van.der.vlist@samskipvandieren.com
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DIT	+ 49 (0) 2065-49 90	+ 49 (0) 2065-49 92 90	info@dit-duisburg.de
DKT	+ 49 (0) 2065-89 35 00	+ 49 (0) 2065-8 93 50 20	contact@dkt-duisburg.de
DUSS	+ 49 (0) 203-80 90 50	+ 49 (0) 203-8 09 05 55	duisburg@duss-terminal.de
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All data in the rail schedule are based on information provided by the operators without engagement.

duisport - The Port

The port of Duisburg, at the confluence of the Rhine and Ruhr, is the largest inland port in the world with handling volumes of 110 million tonnes and value creation of 3 billion euros per year.

The trimodal (water, rails and roads) logistics turntable duisport acts as a hinterland node for the seaports and as a gateway for goods transport to Central Europe. In addition to goods handling (primarily merchandise in containers, import coal, iron/steel, mineral oil/chemicals) the logistics location offers numerous logistics services.

duisport – the company

Around 300 logistics oriented companies are based in the Port of Duisburg. In total over 20,000 jobs in Duisburg depend on the port, 40,000 in the region. Port induced investments made by companies at the location amount to more than 250 million euros a year.

duisport – the port Group

Duisburger Hafen AG is the holding and management company of the Port of Duisburg. The duisport Group, which the subsidiaries of Duisburger Hafen AG also

belong to, offers full service packages in infra- and suprastructure including relocation management for the port and logistics location. Logistics services supplementing the portfolios of companies based in the port complete the Group's service spectrum. Thus the duisport Group sees itself as a partner of the logistics sector and makes its own contributions to optimizing transport chains to deliver to and from industry and retail.

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Verpackungslogistik

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Ship Reporting Station

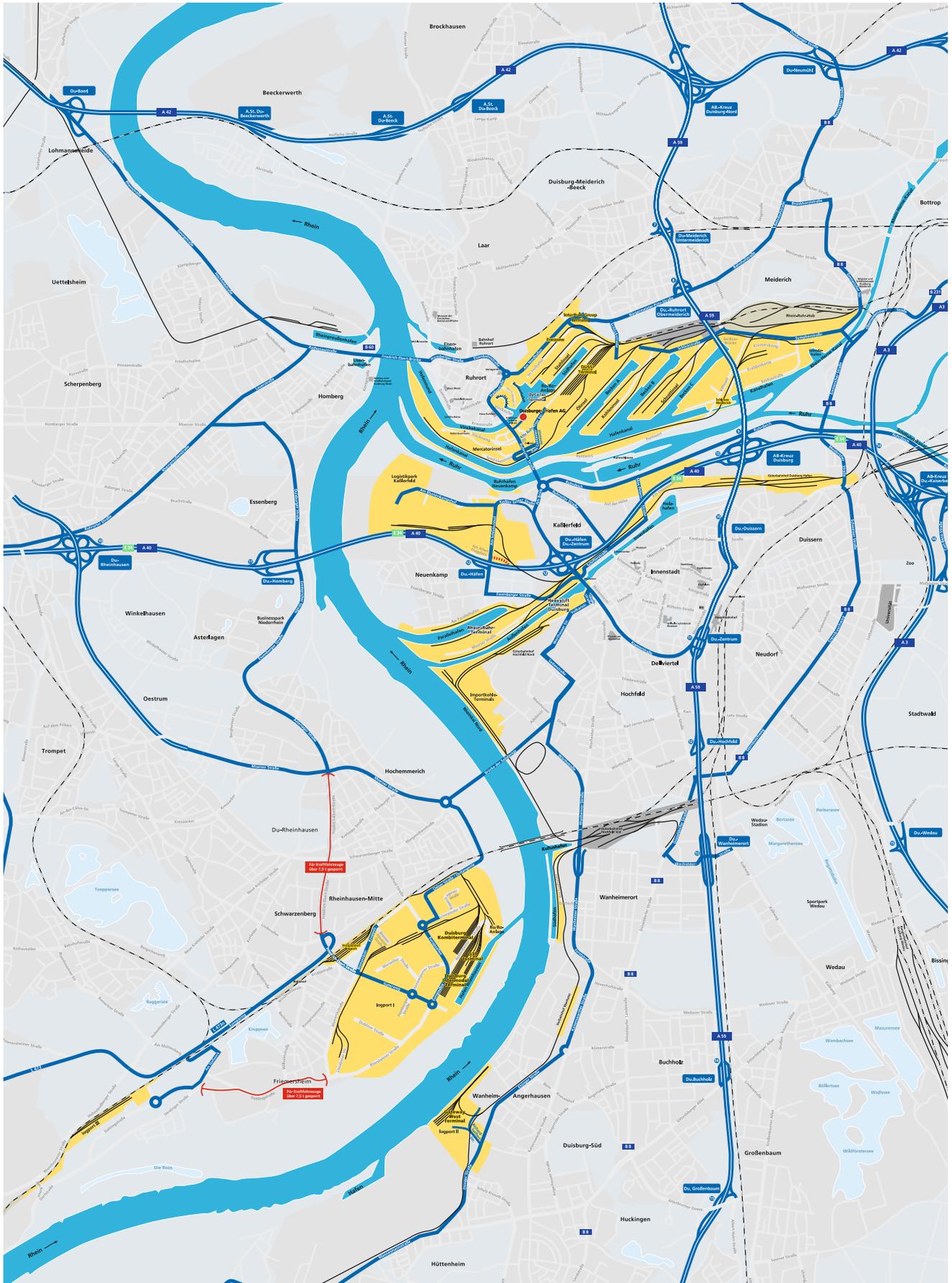
Tel: +49 203 479 76 36 | VHF channel 14
anmeldung@duisport.de | mail@duisport.de

The Web Portal

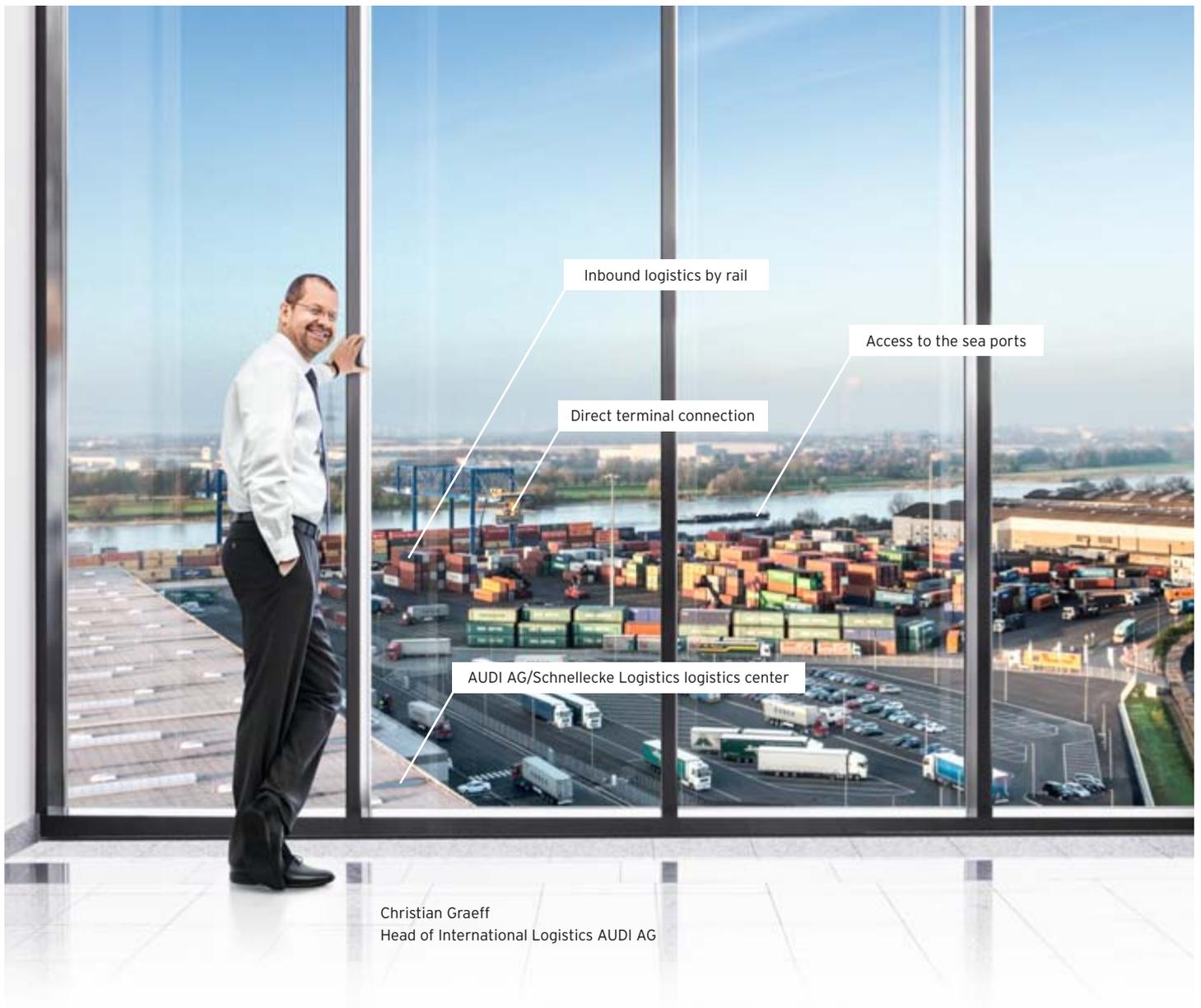
www.duisport.com

Corporate Communication

Tel: +49 203 803-4455 | pr@duisport.de



- A 40 Motorway
- Important connecting road
- Important connecting railway
- Railway
- Water area
- Duisport Port area
- Planned feeder road
- Headquarters of Duisburger Hafen AG



Christian Graeff
Head of International Logistics AUDI AG

„A perfect fit: Vorsprung durch Technik - Advantage through integrated logistics solution.“

The largest AUDI AG CKD location worldwide stands in the largest inland port in the world: in the newly built logistics center in the Port of Duisburg more than 800.000 m³ of car components per year are handled for shipment to China and India and in future to Mexico too. The concept: the company Schnellecke Logistics picks and packs the vehicle parts for export, the duisport Group is responsible for supplying empty containers from the sea ports, terminal operations and transporting the loaded containers to the sea ports.

The result: a logistics solution with maximum flexibility implemented in record time - and a highly satisfied global player. **duisport. We have the solution.**