

LOGISTICS PILOT

EDITION

#3 2026



GERMAN PORTS

INFRASTRUCTURE FINANCE

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TEAMWORK FOR FUTURE-PROOF PORTS

Dear readers,

Ports are essential for international trade, energy supply and innovation, contingency planning and national defence – roles that they perform reliably and efficiently. The National Ports Strategy is laying the appropriate foundations to ensure this remains so in the future too.

Aims include strengthening our ports' competitiveness and resilience. Plus, as a vital element of critical infrastructure and for security of supply, we can ensure that they remain fit for purpose. We are also addressing the role of ports as energy consumers and as cornerstones of the energy supply. Digitalisation is an additional key factor. Automated systems make processes and workflows faster, smarter and more precise. They also help to reduce costs, increase safety and resilience, and make careers more attractive. This is why we are developing the necessary legal framework and supporting innovative digital projects in the ports.

The "Climate-Friendly Shipping and Ports" section of the Climate and Transformation Fund is helping to implement the ports strategy. The federal government will make 400 million euros available for this by 2029. On the one hand, it is contributing by providing financial support to those federal states responsible for ports by means of the port burden compensation scheme. On the other, money from the special fund will be made available to the states, from which the ports should also benefit accordingly. Moreover, more than 1.3 billion euros is being invested to upgrade the port of Bremerhaven for military purposes. This is a substantial sum.

To the federal and state governments, the port industry and the trade associations – only by pulling together can we overcome these challenges, ensure our ports are innovative, efficient and competitive and chart a course towards a successful future.

Best wishes, Patrick Schnieder

**Patrick Schnieder, Member of the Bundestag, Former
Federal Minister for Transport**

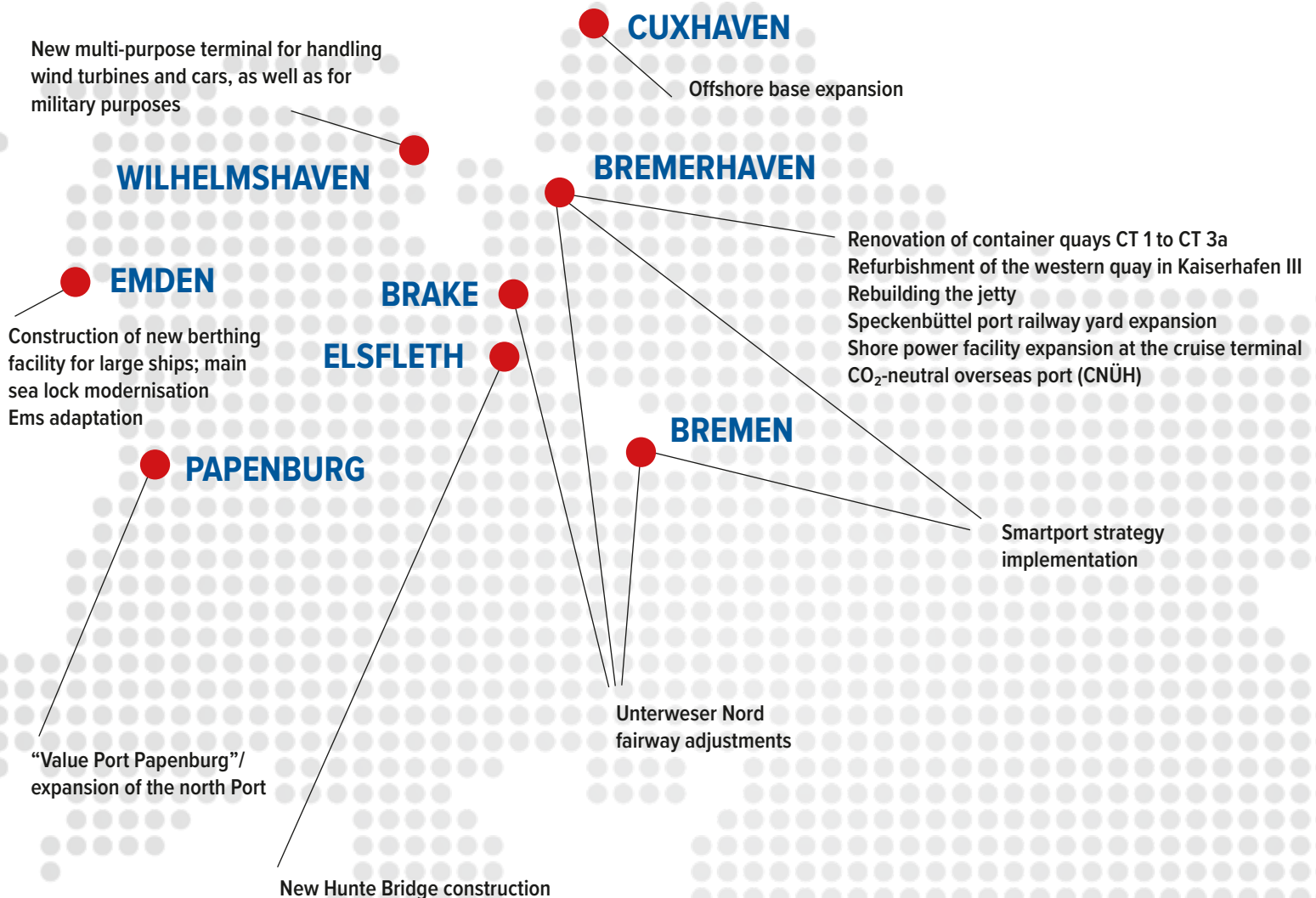
WRONG TURN?

Visitors to the Technik Museum in Sinsheim have been able to marvel at the interior of the decommissioned “U17” submarine for roughly a year now. However, it took a logistical feat of epic proportions to get the 48-metre-long, 500-tonne steel colossus to its destination in Baden-Württemberg. The project took over a year and cost around two million euros, financed mainly by donations. Firstly, a gantry crane hoisted the submarine onto a floating pontoon in Kiel before it was shipped via the Kiel Canal, the North Sea, the Rhine and the Neckar to Speyer. There, it began its journey over land on a low bed trailer – travelling along motorways and railway lines, passing under bridges and through narrow passages. Trains were halted and traffic lights, overhead lines and guard rails temporarily removed. During its nearly 40-kilometre-long journey through Germany’s transport and infrastructure landscape, the “U17” sometimes even had to be tipped onto its side to make sure it could pass through unscathed.

(bre) ■



“WATT MUTT, DATT MUTT!”



According to this Low German proverb, if you wish to make headway, you sometimes have to tackle tasks without more ado. This is also true for infrastructure and superstructure development in northern Germany’s ports. Even though it is often still unclear where the necessary funding will come from and how quickly implementation can take place, the local port industry is getting stuck in.

“Structural reforms are imperative.”

Dr Pierre Dominique Prüm, Chair of the German Transport Forum Executive Committee (DVF)



Looking back at the 14th National Maritime Conference in Emden in late April 2026, German Chancellor Friedrich Merz called for a rapid expansion of maritime security. However, many industry representatives feel he left the question of just what financial resources and reforms the government would use to support the ports unanswered. Dr Pierre Dominique Prüm, Chair of the German Transport Forum Executive Committee (DVF) and member of the Executive Board at Fraport, shares this view. “Chancellor Merz mentioned 400 million euros from the Climate and Transformation Fund and 1.35 billion euros from the defence budget for infrastructure in Bremerhaven,” he explains. “However, this covers only a small fraction of what would be needed to develop seaports as energy hubs, making them resilient and fully fit

Construction of the new jetty in Bremerhaven is in full swing. The new structure will be 280 metres long and feature the historic lighthouse as its landmark.



for military purposes.” One of the DVF’s demands is therefore to increase what is known as the “port burden compensation scheme” – currently 38.3 million euros a year for all German seaports – to at least 500 million euros a year. “These funds are for ongoing maintenance,” Prüm adds. “Regardless, we need a further 15 billion euros to clear the maintenance backlog in the seaports.”

It is also clear to Prüm that the pending investments in port infrastructure can only be successful if they collaborate with the private port sector. “Terminals and equipment must be geared towards low emissions, digital security and dual-use applications,” he continues. “Structural reforms are imperative. This is of national responsibility, meaning the government shares this obligation.” Their task is to secure a new, sustainable basis for financing port infrastructure that applies to both inland ports and seaports.

“The Infrastructure Future Act that’s currently being planned is a positive step,” says Prüm with regard to the legal framework. “But there’s still room for improvement here too. To emphasise the importance of major infrastructure projects during the approval process, the German government is enshrining the overriding public interest of such projects in law. Ports must also fall into this category in future.” Moreover, it is essential that the import sales tax reform – otherwise known as the billing model – which he believes is long overdue, be tackled at national level. Prüm also sees a comparable need for action at EU level. Here, state aid rules for ports must be adapted to the new investment requirements, and revenue from emissions trading in maritime transport must be invested back into the climate protection sector. “The EU Ports Strategy addresses the security situation and the protection of ports in detail,” Prüm concludes. “Here, responsibilities and funding for security measures must be clarified urgently. In addition, I recommend that the EU Ports Strategy should focus more on removing regulatory barriers and on faster approval procedures, as well as revising the Water Framework Directive.”

Finally, the DFV chairman highlights the significance of sea access routes and hinterland connections for the competitiveness of ports. “The navigation channels on the Weser and Ems have needed dredging for decades,” he warns. “As regards the rail network, a renovation backlog of 130 billion euros has built up. Waterways are chronically underfunded. If we don’t speed up the tendering, planning and construction processes, it’ll take decades before an efficient, reliable and modern infrastructure is in place. The transport budget must therefore be increased and, through structural reforms, lead to faster and more reliable construction projects.” ➔



“Bremen is already doing a great deal to improve port-related infrastructure.”

Christian Pabst, Head of Construction at bremenports

Charting a course for the future

Apart from the fact that, alongside Prümm, numerous experts in the ports also criticise Germany’s protracted approval and planning procedures, Bremen and Lower Saxony have long since begun adapting their local ports’ infrastructures and superstructures to meet the new challenges. After all, those in charge are aware that new companies will only come to places where they find the best locations, and that long-established industries will only continue to invest if they are offered the necessary framework conditions for smooth import and export activities. Consequently, numerous projects have been launched (see diagram on page 6), some of which are briefly outlined below.

In October 2025, the launch of a tender process in Bremerhaven kicked off the renovation of container quays CT 1 to CT 3a. In several stages, the quay structure, spanning three kilometres, is to be redeveloped and equipped with modern cargo-processing equipment. The future development of ship sizes is to be taken into account, so that by the mid-to-late 2030s, even the most modern container ships with capacities of over 26,000 TEU can be handled there. “The reconstruction of the quay will secure Bremerhaven’s long-term competitiveness as a container port,” explains Christian Pabst, Head of Construction at bremenports. “Due to salt damage, the underwater concrete has deteriorated so severely in many places that something had to be done. We’re

“Rail accounts for over 50 per cent of hinterland transport in Bremerhaven.”

Henry Behrends, Head of Port Operations at bremenports



The redevelopment of the West Quay in Bremerhaven will create more space, both for building converter platforms for offshore wind energy and for manoeuvring large ships.

rectifying this now and, at the same time, bringing the 60-year-old facilities up to the latest standards.”

The West Quay in Bremerhaven’s Kaiserhafen III is also being redeveloped – this is where Lloyd Werft’s Floating Dock III is to be moored in future. Consequently, almost 60 million euros is to be invested, creating space in the harbour basin for large converter platforms for offshore wind farms. By straightening the quay, which will then no longer jut so far out into the harbour basin, bremenports also intends to create more space for large ships to manoeuvre, thereby better addressing safety considerations. “Bremen is already doing a great deal to improve port-related infrastructure,” explains Pabst. “However, this is an ongoing process in which there’s still a lot to be done.”

Evidence of this is the Speckenbüttel port railway station expansion and modernisation, of which the ground-breaking ceremony recently took place in Bremerhaven. Around 56 million euros are being invested there in additional track capacity, modern signalling and safety technology, and digitalisation. Further, the so-called “20er-Gruppe” will see the creation of a new marshalling yard with seven additional tracks, each around 740 metres long. These are destined for handling container, automotive and military shipments. The new tracks are to be fully electrified and fitted with modern brake testing systems, points heating and state-of-the-art lighting. Meanwhile, the existing infrastructure is being comprehensively digitalised by integrating the signalling and safety systems into a digital signal box. “In Bremerhaven, rail accounts for over 50 per cent of hinterland transport, which is unique in Europe,” explains Henry Behrends, Head of Port Operations at bremenports, and adds: “In Speckenbüttel, we’re not only creating more space, we’re also sustainably strengthening rail freight transport to connect port and hinterland even more efficiently.”

The backbone of Germany's energy transition

Excavators and heavy machinery are in use at many sites throughout Lower Saxony too. One key infrastructure project is the expansion of the Cuxhaven offshore port, destined to be Germany's central energy hub. As part of this work, which has a price tag of roughly 300 million euros, three new heavy-lift berths (berths 5 to 7) will be expanded by late 2028, thereby closing the gap between the Europakai and the offshore terminals. "Since the early 2000s, Cuxhaven as a port location has developed extremely well, not least by recognising the specific needs of the wind energy sector at an early stage and developing suitable logistics services," comments Inke Onnen-Lübben, Managing Director of Seaports of Niedersachsen. "Ongoing infrastructure and superstructure investment, plus the establishment of businesses such as Siemens Gamesa and other service providers, means Cuxhaven is now seen as Germany's offshore industry hub." With the further expansion of the local offshore port and around 38 hectares of additional transshipment and storage space by NPorts, she believes the location is making a significant contribution to the implementation of the energy transition in Germany. "This project has also resulted in the German government recognising that the energy transition can only succeed if it contributes to the investment and doesn't let Lower Saxony and the private sector foot the bill alone," she emphasises.

In August 2025, the expansion of a berth for large vessels by NPorts in Emden, around 160 km to the west, began. The project, for which an investment of around 70 million euros has been earmarked as part of the Ems 2050 Master Plan, will close the existing gap between Emskai and Emspier and will, in future, enable the handling of vessels up to 265 metres in length, 36.5 metres in width and with a draught of 10.7 metres. A new approx. 23-hectare terminal area is also being built there. "This will allow processes to be optimised effectively, particularly when handling vehicles, pulp, general cargo and military goods," explains Onnen-Lübben, referring to the Ems fairway adjustment project, which has been at the planning stage for 25 years. From the perspective of Emden's port industry, this is essential to compensate for the impact of tidal control on the site's accessibility from the sea.

Finally, over the past two-and-a-half years, the "Value Port Papenburg" project has seen the expansion of the North Port into a modern industrial and logistics hub – by the city of Papenburg – with funding from the state of Lower Saxony and the district of Emsland. These measures contributed to the expansion of the port by around 9,500 m² and dredging to a water depth of six metres. Further, a new, approximately 800-metre-long sheet pile wall was also erected. "This project was initiated due to the high demand for commercial



"The project was initiated due to the high demand for commercial and industrial space."

Inke Onnen-Lübben, Managing Director of Seaports of Niedersachsen

and industrial space, as well as the need for local businesses to expand," Onnen-Lübben explains, adding that the successful implementation of the project on site has now created significant infrastructural conditions for growth, innovation and new settlements, while simultaneously driving the development of the location forward in terms of the circular economy and recycling. The project is not yet complete, however. "More industrial and port areas are also planned in the Bokeler Bogen area," Onnen-Lübben continues, "creating several hectares of industrial land for new businesses and making Papenburg more attractive as a business location."

"Resilience can't be built in a silo"

Looking beyond specific locations and projects, Olaf Gelhausen, COO at the port and terminal operator APM Terminals – part of the Danish shipping and logistics group Maersk – reflects on the importance and resilience of port infrastructure. In his view, these are crucial for the global security of supply, ➔

Three new heavy-lift berths will be built in Cuxhaven by 2028 as part of the offshore port's expansion.



"A port is only as strong as the system it's embedded in."

Olaf Gelhausen, COO, APM Terminals



which is why the "terminals of the future" must not be considered per se. "A port is only as strong as the system it's embedded in," he states. "Terminal design, hinterland connections, energy supply and nautical infrastructure must be thought of together." For him, one thing is clear. "Resilience can't be built in a silo, but through collaboration. This also means that we must work closely with local governments and port authorities to ensure that investments in rail, road access, energy supply, shore power, network expansion or necessary fairway adjustments are made in good time."

By expanding North Port into a modern industrial and logistics hub, Papenburg is creating key infrastructural conditions for growth and innovation.



In this context, Gelhausen does not see the existing structures within the ports – nor those beyond the quaysides – as an accidental by-product. "The trade routes the global economy is based on today didn't spring up overnight," he explains. "They were built up, consolidated and optimised over decades." He also spoke about current geopolitical developments. "Similarly," he continues, "reorganising them won't be a short-term disruption, rather a profound transformation spanning many years." He feels, however, that many companies are already adapting to the new reality. "They're reviewing where they manufacture, where they source their supplies and how their supply chains can be more resilient," he adds, emphasising the importance of partners who can act decisively in the short term, while simultaneously making long term investments in modern, efficient and critical infrastructure.

He sees the Gemini Cooperation – a strategic alliance by Maersk and Hapag-Lloyd on services running between Asia and Northern Europe since early 2025 – as exemplary of such dual expertise. "The network demonstrates that reliability in our industry can be taken to a new level," he says. "The aim is clear – industry-leading adherence to schedules. However, this requires ships, routes and, above all, strong ports in the right locations. Indeed, efficient terminals are the backbone of a resilient logistics network." He refers to the Bremerhaven site, in particular, which he believes plays a pivotal role, and not only within the Gemini Cooperation. "This year, we signed a contract with EUROGATE for the modernisation and development of the NTB terminal," he explains. "This also includes an investment of one billion euros to create a more efficient and increasingly electrified terminal as we strive for zero-emission operations." If the NTB can achieve net-zero in the future, it would be the first terminal of its kind in Germany. However, the contractually agreed investments are still subject to internal and external approvals. Both APM Terminals and EUROGATE currently expect the transaction to be completed in the third quarter of 2026. (bre) 

SMALL IN SIZE, BIG IN IMPACT



When it comes to mussels, most people probably think of a delectable dish or an attractive souvenir from a beach holiday. But, for many port operators, these small molluscs are a massive problem – particularly where the wood-boring mussel is concerned. This worm-like creature, with a shell measuring just about one centimetre and a soft body usually 20 to 30 centimetres long, attaches itself to submerged timber as a larva and then bores into the material using its specially shaped shell. This significantly reduces the stability of wooden port and jetty structures. Even the hulls of wooden ships are not immune to the damage caused by this mussel, known as the “shipworm”.

In Bremerhaven, people have already had to deal with this unwelcome neighbour quite often. A bridge leading to the “Havenwelten” – used by 5,000 motorists and countless pedestrians – has been closed for weeks. The culprit is said to be this wood-boring creature, whose activities have damaged the bridge structure so severely that it can no longer be deemed stable. According to information from bremenports, the mollusc is also believed to be responsible for the collapse of the jetty in August 2022. As far back as the 18th century, considerable damage has been recorded along the German and Dutch North Sea coasts which is attributed to this small mussel. In the Netherlands, it is even rumoured that it gave rise to the saying “Holland in distress” – after wooden dyke gates, eaten away by the mussel, broke during a storm surge in 1731. (bre) ■

“DIEB” AS A SECURITY GUARD

Ports have undergone dramatic changes in recent years. They have evolved from mere transshipment points for goods into multimodal logistics hubs and industrial centres, as well as becoming a critical infrastructure pillar. However, this new role also presents significant challenges in terms of infrastructure security.



In May, Professor Carlos Jahn, Head of the Institute for Maritime Logistics at the Technical University of Hamburg, provided fascinating insights into this topic during an interdisciplinary symposium organised by the Albert Ballin Forum on the theme of “War and Peace at Sea”. “Ports have now become highly complex logistics hubs where numerous stakeholders and technical systems interact on a daily basis,” he emphasised. “This creates interfaces and interdependencies which are, of course, also vulnerable to potential disruptions and attacks.” He lists the movement of goods via the modes of transport – ships,

lorries and trains – as one of the most important components interacting within ports, as well as the people who ensure the smooth operation of these logistics chains, for example at terminal operators, shipping companies or customs. There are also various technical systems used in this context, such as information technology (IT) for processing data flows and operational technology (OT) that monitors machinery, plant and industrial processes.

Jahn then vividly illustrated, using photographs and newspaper reports, just how vulnerable the port system is, due to this multitude of players and systems,



“Ports are highly complex logistics hubs.”

Prof. Carlos Jahn, Head of Institute for Maritime Logistics at the Technical University of Hamburg

and the wide range of challenges that arise as a result of security-specific requirements. He showed the March 2024 collision between the container ship “MV Dali” and the Francis Scott Key Bridge in Baltimore, and the explosion in the port of Beirut in August 2020. “Further security-related aspects also feature, like individuals climbing up container gantry cranes, cocaine discoveries, counterfeiting and counter-terrorism exercises,” said Jahn. On this last point, he referred to summer 2025, when 150 officers simulated a fictitious attack on the critical infrastructure at Rostock’s oil terminal, and to the civil-military cooperation as part of the Bundeswehr exercise “Red Storm Bravo” in Hamburg in September 2025. The growing number of cyberattacks on German ports is a particular security concern. “At every site, there is a high degree of interconnectivity between various modern and older systems,” he explained. “And it is precisely at these interfaces that gateways for cyberattacks often arise.”

In his presentation, Jahn not only highlighted problem areas but also identified possible solutions. He recommended adhering to regulatory requirements like the ISPS Code, the EU’s CER and NIS-2 Directives on the protection of critical infrastructure, and the KRITIS Framework Act. In his view, cooperation between port stakeholders across organisational boundaries – for example, in the form of joint initiatives by European ports to combat drug trafficking – is also a sensible preventive measure. He drew particular attention to the use of innovative technologies. “These span perimeter security drones, multi-sensor systems for integrated situational awareness on land, at sea and in the air, to AI-supported camera footage analysis to detect anomalies and threats at an early stage,” he outlined. As an example, he cited the mobile sensor platforms known as “Cell on Wheels” developed by the Fraunhofer Centre for Maritime Logistics and Services (CML), which detect suspicious vessel movements in real time, and to the research vessel “Vektor”, which serves as a platform for the deployment of surface and underwater drones and can therefore also monitor areas far from the coast.

Another project Jahn presented is called “DIEB”. This translates into English as “Data-driven Identification, Assessment and Mitigation of Threats” and is a collaboration between NPorts and Fraunhofer CML. Ironically, “DIEB” is German for thief. The research project aims to enable operators of critical maritime infrastructure – in particular LNG terminals such as the one in Wilhelmshaven – to detect threats such as sabotage, espionage and cyber-attacks at an early stage. DIEB is also designed to assess potential risks and provide targeted information, so that effective countermeasures can be implemented. “These are all exciting approaches that are still being developed,” stated Jahn, and then went on to warn: “Ensuring security in ports is an ongoing process that requires the cooperation of all stakeholders involved. Simply updating the infrastructure there with a single measure every few years is by no means enough.” (bre) ▣

Ports have a wide range of safety-related requirements. Prof. Carlos Jahn illustrated this with many photographs and newspaper reports, including those relating to the “MV Dali” accident in Baltimore.



GERMANY SPEEDS UP THE PACE

Irrespective of whether the subject is roads, bridges, waterways or rail networks, infrastructure has now appeared on the political agenda. After the federal government approved the Special Fund for Infrastructure and Climate Neutrality (SVIK) last year, they recently agreed on a draft for the Infrastructure Future Act. Whereas the Special Fund represents an enormous investment package worth 500 billion euros, aimed at clearing the investment backlog in Germany and achieving climate neutrality by 2045, the Future Act is intended to raise the efficiency of planning and approval procedures, especially concerning the traffic and energy sectors. The former Federal Minister for Transport, Patrick Schnieder, stated: "The Infrastructure Act will enable us to speed up the pace by means of a paradigm shift. We will clearly define what infrastructure is strategically important to Germany and give it appropriate weight in our decision-making processes."

(bre) □

Pillars of SVIK

300bn euros

from SVIK designated for investments **by the German government** – especially for railways, motorway bridges, digitalisation and the German army.

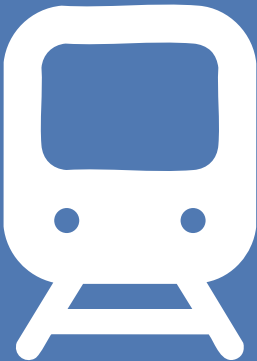
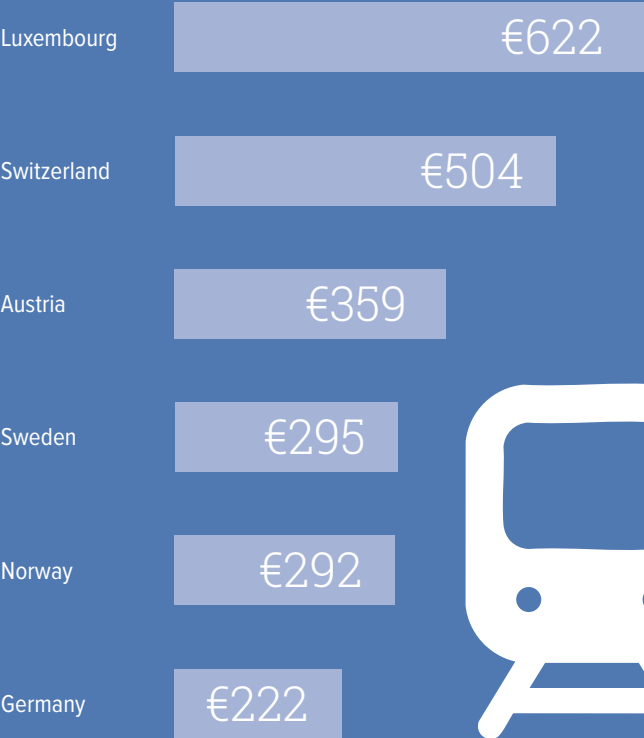
100bn euros

from SVIK are destined for the federal states – for investments in their **infrastructure** and that of the **municipalities**.

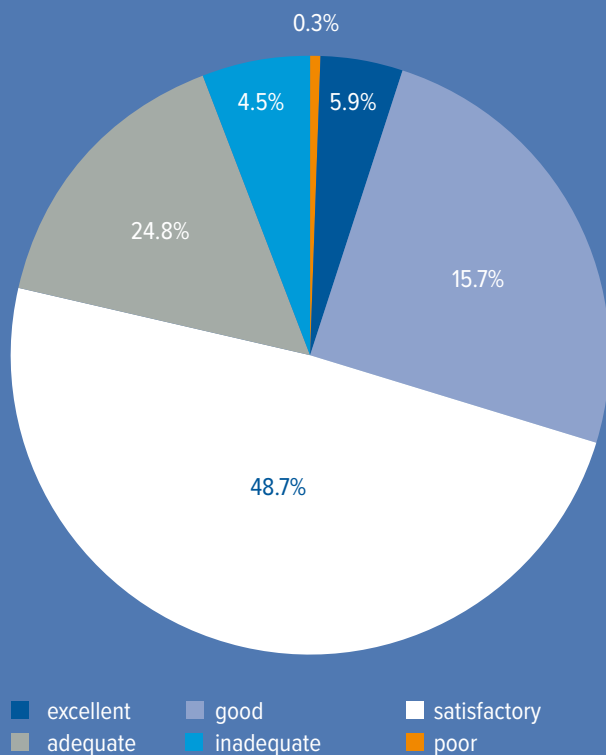
100bn euros

from SVIK are allocated to climate protection and to bolster the **Climate and Transformation Fund (KTF)**.

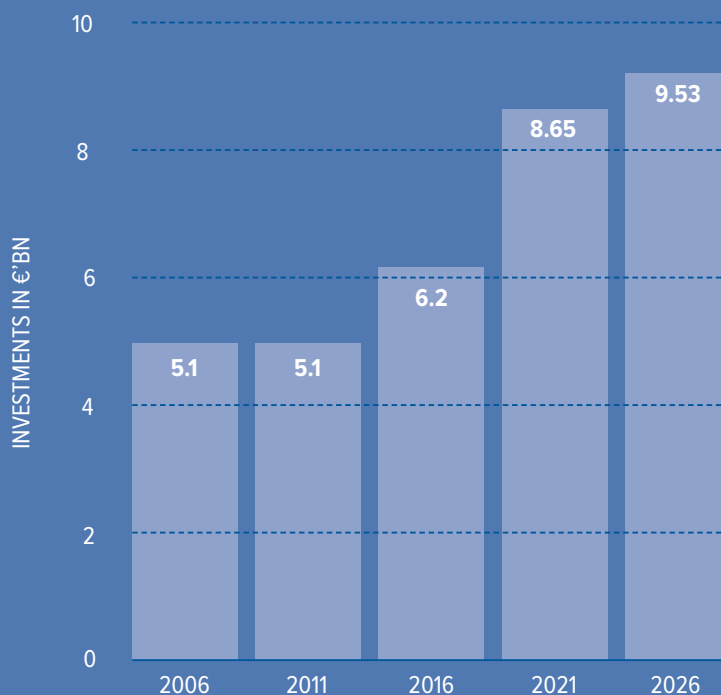
Public investment per capita by the respective country in railway infrastructure in 2025



The condition of motorway bridges in Germany in 2025



German government investment expenditure in German road networks



No speedsters



In Germany, around **83 per cent** of people drive, on average, less than 130 km/h on motorway sections where no speed limit is in force. Roughly only **10.5 per cent** drive on these sections at an average of between 130 and 140 km/h. The speed has been continually falling – from 116.5 km/h in 2021 to most recently 113.5 km/h.

Animal speeds – these are the fastest



over land

Cheetah (up to 112 km/h)

through water

Sailfish (up to 100 km/h)

in the air

Peregrine falcon (at least 180 km/h)

AN IMPORTANT TOOL FOR DEMOCRATIC PARTICIPATION?

The wish for quicker planning and approval processes seems to be at odds with the protection of environmental, nature and consumer rights in debates in terms of reforming the right of associations to take legal action. Bernd Afflerbach, President of the Construction Industry Association of Lower Saxony-Bremen, and Professor Holger Buschmann, Chairman of NABU Lower Saxony, put forward their respective arguments.

“After many wasted years, we now need fast and determined action.”



LOGISTICS PILOT: The German government is planning far-reaching changes concerning legal action taken by associations, especially in terms of environmental and construction laws. Is this a good idea to be able to speed up infrastructure projects?

AFFLERBACH: Yes. The country is facing massive challenges: dilapidated bridges, overloaded railways and waterways that need to be cleaned up are hampered by everlasting and complex approval processes. The problem is becoming ever more acute, due to the geopolitical situation and the future requirements facing the German armed forces and its European partners. It is important that the originally envisaged possibilities for taking legal action in respect of the investments

BERND AFFLERBACH

President of the Construction Industry Association of Lower Saxony-Bremen

urgently needed in our infrastructure move forward more quickly, and that the German government's Infrastructure Future Act is not impeded by an excessive number of legal challenges. Nobody has the impression that too little legal action has taken place in Germany in the past – certainly not the courts.

BUSCHMANN: No, that is certainly not a good idea. If environmental law still exists on paper but can hardly ever be effectively enforced, it is society as a whole that will ultimately bear the consequences. Destroyed moors, sealed earth surfaces, polluted rivers and lakes, and the loss of protected species will cause enormous problems in the long run. Short-term economic interests must not be allowed to be used to undermine government legislation. After all, nature conservation is confronted by significantly more powerful lobbying interests. As far as I'm concerned, it will be an act of irresponsibility if the right of associations to take legal action is curtailed even further.

LOGISTICS PILOT: What are the arguments for restricting the right of associations to take legal action?

AFFLERBACH: Nowadays, the time factor is more critical than ever in establishing a modern and efficient infrastructure. We need to ask ourselves the question as to whether yesterday's regulations can be applied to the challenges facing us now. Even the population no longer accepts that there are years of delays in legal proceedings following a ruling. It is not just a matter of setting limits for associations taking legal action but rather refocusing on the original purpose of species protection law – namely, the protection of species,

PROFESSOR HOLGER BUSCHMANN

NABU Chairman Lower Saxony

not individual specimens. It is astonishing that so many rare species are discovered during so many major construction projects. You can't help but think that these are more frequently classified as "rare" than they really are. If environmental organisations consider that "environmental democracy" is under pressure, you must also accept, on the other hand, that lengthy lawsuits and construction delays have put the reputation of democracy under just as much pressure. This is even more the case where projects are interrupted which serve public welfare.

BUSCHMANN: Not at all. The right of associations to take legal action is not an obstacle but rather an important tool for democratic participation. Environmental laws must be adhered to and capable of being verified. Those who curtail these controls are not reducing bureaucracy but weakening the rule of law. I consider this to be the completely wrong way to go.

LOGISTICS PILOT: And what are the arguments against it?

AFFLERBACH: The construction industry takes the debates seriously and does not simply turn a blind eye to legitimate arguments against it. Assessments from environmental organisations deserve objective discussion. An overly broad restriction on the right to sue – one that would not hold up before European courts – cannot be in anyone's interest. After all, this ultimately creates more legal uncertainty than it resolves.

BUSCHMANN: There's a lot to be said against it. Nature and the environment cannot take legal action in their own right. That's the whole reason for associations having the right to take entities to court. In a few instances, recognised nature conservation organisations may have checks carried out to determine whether applicable environmental legislation has been adhered to. This is often where damage has occurred to common commodities, i.e. ground, water or protected areas, where an individual would not be able to take action per se. If this possibility were to be restricted, the risk increases that environmental destruction will gain further momentum. Where major infrastructural projects are involved, we are talking about significant interventions, vast sums of public money, and often irreparable environmental damage. Legal certainty is not achieved by cutting off legal remedies. It is created by means of clean processes, professional diligence, and the early involvement of recognised associations.



Those who curtail these controls are not reducing bureaucracy but weakening the rule of law.

LOGISTICS PILOT: What are the alternatives to speed up the slow pace of infrastructure development in Germany?

AFFLERBACH: After many wasted years, we now need fast and determined action. This includes reliable financing cycles as well as the special fund set up by the government to be used to fund necessary projects and not merely go to plugging budget gaps. At the same time, we politicians must think more in macro terms rather than in micro measures. Awarding contracts must be speeded up. Modern ways of awarding contracts, such as functional tenders or partnership models, are suitable for this, so that the expertise of construction companies are better integrated into the construction process. Finally, the opportunities provided by public procurement law must also be fully utilised. Centralised procurement departments at a local authority level would also simplify things. Unfortunately, time is of essence, and political patchwork is no longer the order of the day.

BUSCHMANN: We would be a great deal closer to our goal if planning were clear, digital and transparent – right from the beginning. Many of the delays are caused by missing documentation, planning errors, a lack of staff and local authorities under too much pressure. As far as we are concerned, local authorities need more expertise, both in terms of staff know-how and the technology to hand as well as clear responsibilities and decision-making powers. The needs of the environment must be taken into account at an early stage and not when conflicts have already arisen. Those who plan properly, take public participation seriously, and do not treat nature conservation as a tiresome obstacle can avoid the need for rectification work, construction halts and a loss of trust. This makes infrastructure expansion faster and, at the same time, more compatible with nature. (bre) □

CONCERTED EFFORTS FOR MORE ACCEPTANCE



The German Ports Alliance's more measured tone at the National Maritime Conference in Emden at the end of April was followed by an official "bombshell" on 10 June 2026, when the group of eight ports introduced itself to the public for the first time at the premises housing the Hamburg State Representation in Berlin.

The theme of the event in the capital city was “Where resilience begins: between the energy crisis and defence policy – German ports as a cornerstone of the sustainable infrastructure of the future”. The German Ports Alliance, which enjoys the support of the Association of German Seaport Operators (ZDS), is and will continue to be the driving force behind this event and the new collaboration. The initiative comprises eight German port infrastructure operators – bremenports, Brunsbüttel Ports, duisport, Hamburg Port Authority, Port of Kiel, Lübeck Port Authority, Niedersachsen Ports and Rostock Port – which, together, represent the entire spectrum of companies based at German ports and aim to advance these central future issues of port development. In an effort to acquire recognition as a cornerstone of the sustainable infrastructure of the future and secure not only encouraging words but also proper funding from Berlin, the alliance raised these demands at its kick-off event (see adjacent info box).

In front of an audience of around 140 guests from politics, government, business and academia, Dr Melanie Leonhard, Hamburg’s Senator for Economic Affairs, Labour and Innovation, opened the event in Berlin by outlining the path forward for the alliance: “The statement ‘No shipping, no shopping’ sums it up perfectly. Our ports are essential for ensuring our strategic autonomy and economic security and need to be a key focus of government policy.” And Christoph Ploß, Federal Government Coordinator for Maritime Economy and Tourism, had this to say about the ports’ financial resources: “We urgently need more investment in German ports because so much depends on them for us as an export nation. This also includes greater flexibility in how the special fund is allocated.”

Robert Howe, bremenports Managing Director, fully agrees with both statements, adding: “We’ve spoken many times over the years, at various roundtables, on discussion panels and at other events. But something suddenly shifted in all of us last year. We came to realise that there are other options we can take advantage of if we work together.” Howe is quick to point out that the initial catalyst for this alliance came from Hamburg and that it is not simply about monetary aspects, but also about fundamentally re-examining the role of ports. “The governments of some of our neighbouring countries recognised the real importance of ports earlier than we did here in Germany. While we’re increasingly coming to these realisations, the right conclusions have yet to be drawn,” says Howe. And to emphasise the importance of German ports, he adds that more than 1.5 million jobs are currently tied to the German port industry alone, either directly or indirectly, and that around 60 per cent of all imports and exports pass through the ports as central hubs of German foreign trade. But the



THE DEMANDS OF THE ALLIANCE:

1. Acknowledgement of sea and inland ports as strategic infrastructure of national significance
2. As stipulated in the federal government's coalition agreement, substantially increase the federal government's existing port burden compensation scheme in line with its interests in the ports
3. Resolve the current modernisation backlog in the public port infrastructure with financing from the Infrastructure Special Fund
4. Explicit inclusion of sea and inland ports in the planned Infrastructure Future Act and the corresponding significant acceleration of planning and approval processes

true capability of the ports goes far beyond that. “You must also consider the logistics and value chains that are linked to the ports. That further increases their significance as an economic factor and as central hubs of international trade many times over.” →



“You can amend legislation and then restructure port funding.”

Robert Howe, Managing Director,
bremenports



Working together for the future of logistics: the German Ports Alliance calls for the German government to increase its investment in port infrastructure.

The concept of ports as a regional matter “is outdated”

For this reason, the German Ports Alliance has called for proper funding for sea and inland ports as strategic infrastructure. As part of the so-called port burden compensation scheme, the German government has allocated 38.3 million euros to the ports annually. But industry officials view this sum as far too little, which is why the coastal regions and the ZDS have set their sights on a rise to 500 million euros a year – a demand also backed by Howe. However, Friedrich Merz, Federal Chancellor of Germany, rejected the request at the National Maritime Conference (NMC) in Emden, pointing out that increasing the amount is not possible without amending the constitution and that, according to the constitution, the federal states – and not the federal government – are responsible for financing the ports. For Howe, that is sending the wrong signal. “You can amend legislation and then restructure port funding,” he says, adding that the notion of “ports as a regional matter” is outdated. “The coronavirus and the situation in Ukraine have confirmed that our ports fulfil a national need, whether as an indispensable hub for global supply chains, for the energy transition or for military mobility within the framework of European security architecture.”

Howe has the backing of other ports on this fundamental issue. “It’s largely about future-proofing the infrastructure – and making it modern, efficient and resilient,” says Tino Klemm, Chief Financial Officer of the Hamburg Port Authority. “Specifically, that requires a reliable financing structure and clear political frameworks that allow for the necessary investments to be made in a timely fashion. He believes it will be much easier to achieve this aim with the eight partners working together than if everyone had continued to go it alone. “I anticipate that the German Ports Alliance will sharpen Berlin’s political awareness on the importance of the ports and effectively represent their interests on a national level.” “What makes this



“The federal government demands national functions without consistently assuming national responsibility.”

Holger Banik, Managing Director of NPorts

alliance so extraordinary is the solidarity of the large port locations themselves. Collaboration is an embodiment of the national port strategy. With a single voice and a clear political aim, the central infrastructure operators are now working together to support the ongoing efforts.”

Holger Banik, NPorts Managing Director, could not agree more: “With the German Ports Alliance, we’re able to bundle our strengths and highlight just how strategically important the port infrastructure is for the German economy.” According to Banik, the ports already play an indispensable role today in supplying the country. They serve as energy hubs and will increasingly need to ensure a multifunctional infrastructure for a potential crisis scenario in the future. “The German government expects the ports to provide more and more services,” says Banik, referring to investment requirements and the discussion between the federal government and the states about responsibility for port financing. “But this new role is still primarily financed through regional and municipal structures. That’s precisely where the political contradiction lies. The government demands national functions without consistently assuming national responsibility.” Lars Nennhaus, Chief Operating Officer and Chief Technical Officer of Duisburger Hafen AG, offers this warning: “We can only be successful together. If one port falters, the economy falters.”

In early July, the German government incorporated sea and inland ports into the scope of the new Infrastructure Future Act (InfrSZG), which should significantly accelerate planning and approval processes for important port infrastructure projects. As a representative of the German Ports Alliance, Howe views this as “an important signal in the right direction”. “Incorporating ports into the Infrastructure Future Act was one of our core demands and represents a major upgrade for the ports,” says the bremenports Managing Director. (bre) ■



“It’s largely about future-proofing the infrastructure.”

Tino Klemm, Chief Financial Officer of the Hamburg Port Authority

FROM THE CLOUD BACK TO THE BRIDGE

Reports, findings, forms – ship crews and teams on land spend a lot of time on administrative work, which the Berlin-based start-up Sealenic plans to change. An AI platform will allow employees to focus on their actual responsibilities again.

More time for what is important: the Sealenic AI platform is designed to promptly and correctly answer questions about regulations and other issues.

Sebastian Toft is co-founder of the start-up and knows the industry inside and out. Toft, who is both German and Danish and lives in Copenhagen, joined A.P. Moller-Maersk at the age of 19 and ended up staying with the company for nearly 17 years. Thanks to a variety of administrative and operational functions, he was able to develop a wealth of knowledge in the shipping industry during that time, which included a three-year assignment in Singapore. “I got to know the shipping industry from the ground up,” says Toft. This knowledge forms the basis for the start-up Sealenic, which emerged from the maritime Venture Builder Flagship Founders in April 2024 and is developing an AI-based platform for compliance, health and workplace safety in shipping.

Toft came on board as commercial co-founder after Flagship Founders introduced him to Paramvir Singh, the other co-founder of Sealenic. Singh can draw on more than 15 years of experience in the development of new technology companies, including positions in San Francisco and Stockholm, as well as specialist knowledge in logistics, banking and other complex sectors.

What initially began as an intelligent information system has since developed by leaps and bounds. “We’ve evolved from a purely question-and-answer platform to a platform that can complete genuine, complex shipping tasks with the user,” explains Toft. For example, if an employee at sea or on land needs to process findings from a recent report or conduct root cause analysis, the Sealenic platform combines internal company documents with external regulatory conditions and supports the reporting process. The technology itself operates in compliance with rules and is efficient and, more importantly, fast.

For Toft, this is more than just a technical function. “We want seafarers to return to the bridge, rather than spend their time filling

out forms. Qualified staff should be able to focus entirely on the decisions that require their expertise.”

Several customers are already using the platform, including the long-standing F. Laeisz shipping company in Hamburg, whilst others are currently in the pilot phase. Some 150 vessels from different segments – from container ships and tankers to bulk carriers – are already active on the platform. “The platform has proven its worth in the market, and we already have paying customers on board,” emphasises Toft. Further customer relationships will be officially announced in the coming months.

Long term, Sealenic is already thinking beyond mere shipping operations. “What we’re doing for the shipping industry today could also be used at terminals and ports in the future,” says Toft. However, the company has not yet taken this step and, for the time being, will continue to focus on further establishing the foundations for maritime shipping. But the direction is clear: Sealenic is positioning itself as an ambitious HSEQ platform that can grow into other areas of the maritime value chain. [\(inn\)](#) 

Paramvir Singh (left) and Sebastian Toft at the helm of Sealenic since April 2024.



RESILIENCE AS A GUIDING PRINCIPLE



Due to their position at the interface between land and sea, German ports are uniquely affected by climate change. Rising sea levels and extreme weather events like flooding, torrential rain and heatwaves, in particular, represent significant challenges for port locations.

The Senate of Bremen and the Magistrate of the City of Bremerhaven therefore adopted their first climate adaptation strategy in 2018. This guiding principle consistently showed the way over the years, ultimately culminating in an updated version in November 2025 – with the clearly formulated aim of strengthening the resilience of Bremen ports and their ability to adapt to the meteorological and climate factors.

“The first concept was then developed on the basis of the first climate adaptation strategy, with the aim of climate-proofing Bremen ports,” explains Lena Lankenau, a member of the Environment and Sustainability team at bremenports and Deputy

Director of the KlimaHafen specialist forum of Hafentechnische Gesellschaft (HTG). “Current and future climate risks, adaptation requirements and potential implementation timelines were identified in the process.” Key findings from this concept development process were incorporated into the revised climate adaptation strategy. “The most important points contained therein include systematic integration of climate adaptation into the port strategy, planning and operation, establishment of methods for monitoring climate change and exposure to it, and quantification of the financial impact of climate risks,” adds Lankenau. For her, it is just as important to promote the awareness and individual responsibility



Not even ports are immune to extreme weather events, as the photo (above) of Pingelturm in Bremerhaven impressively shows. In the fight against rising sea levels, numerous coastal protection facilities like the Geeste flood barrier in Bremerhaven (here as a rendering) are also being reinforced to ensure they can withstand higher burdens expected in the future.



“Climate adaptation is not a once-and-done project, but an ongoing responsibility.”

Lena Lankenau, member of the Environment and Sustainability team at bremenports

of all the relevant actors in the Bremen port industry, to network with other port locations and to strengthen knowledge exchange. According to Robert Howe, bremenports Managing Director: “Climate adaptation is not a once-and-done project, but an ongoing responsibility that we approach in collaboration with all the port actors.”

Besides compiling climate baseline data, Bremen ports have also laid the groundwork and initiated concrete measures for counteracting climate change-related risks. For example, flood control facilities like the Geeste flood barrier and the riverside quay in Bremerhaven have been updated to handle rising sea levels. Further, efforts are being made to ensure sufficient tug capacities and create additional berths for these workboats, as there is a growing demand for tugs to manoeuvre large container ships safely through the port on windy days in Bremerhaven. Steps are also being taken to climate-proof port infrastructure and buildings. However, bremenports is subject to applicable requirements as well as windows of opportunity. The planning of the new fire and rescue station in Bremerhaven’s overseas port offers just such a window of opportunity, with recommendations currently being developed to improve drainage in the

Neue Aue area. Measures for avoiding backflow when rainfall is heavy are also high on the agenda for port officials at several locations. At the same time, rail transport capacities are undergoing improvements to make the rail network more resilient to disruptions caused by extreme weather, with solutions such as so-called conflict-free corridors and a third rail for the Bremerhaven-Bremen route under discussion. Last but not least, energy-efficient measures to shade company buildings and maintain lower interior temperatures are being considered. “These steps are being implemented gradually, in line with the current financial budget, for both existing buildings and new development projects,” says Lankenau, highlighting bremenports’ role in the battle against climate change. “We’ve been commissioned by the Free Hanseatic City of Bremen to oversee port infrastructure in Bremerhaven and Bremen. This includes maintaining locks, technical facilities and water depths, and ensuring that Bremische Hafeneisenbahn tracks function properly. For other matters, including terminal space and hinterland logistics, we have to coordinate these with the partners responsible. Consequently, we rely on effective collaboration with all partners and need to meet external planning deadlines, meaning we can’t always work as quickly as we’d like.”

But Lankenau also sees a benefit in this key function when it comes to promoting collaboration between all the port actors, from port operation and administration to shipping and railway. “There are no risks for Bremen ports for the time being. But it never hurts to anticipate potential handling options early on and simulate them together. After all, it’s only by bundling knowledge and sharing responsibility that we can ensure that Bremen port locations remain efficient, secure and sustainable in the future.” She is quick to push back against sceptics: “The best preparation for minimising the economic, environmental and social risks of climate change is still real climate protection.”

(bre) ▣



A SUCCESSFUL SHIPBUILDER AND DEVELOPER OF AUTONOMOUS SURFACE SYSTEMS

New vessels are fitted out, commissioned and tested at Blohm+Voss in Hamburg.

Rheinmetall acquired Naval Vessels Lürssen (NVL), including all its subsidiaries, on 1 March 2026, going from a supplier of naval equipment to a fully fledged shipbuilder. With this step, the Group expanded its portfolio to include a sixth division, which operates under the title Naval Systems and, in addition to shipbuilding, features a second strong mainstay.

Even before entering the shipbuilding business, Rheinmetall was already active in maritime waters – with a wide product portfolio ranging from simulation technologies for maritime systems to the MLG-27 light naval gun system and other weapon systems like the SeaSnake 30 and the Multi Ammunition Softkill System (MASS) decoy system.

And now with NVL, the military division of the Lürssen Group, the company has acquired expertise in surface ship building – with four highly specialised shipyards in northern Germany: Blohm+Voss and Norderwerft in Hamburg, Peene-Werft in Wolgast and Neue Jadewerft in Wilhelmshaven. Collaboration

between the shipyards is overseen in Bremen, where Rheinmetall's new Naval System division is based. In Lemwerder in the state of Lower Saxony, a new campus with more than 400 state-of-the-art workstations was commissioned at the beginning of the year and is home to various departments, including Construction, Procurement, Quality Management and Human Resources. The new division also has sales and design offices in Egypt, Brunei, Bulgaria, Croatia and Singapore.

“Rheinmetall will be a relevant provider on land, on water, in the air and in space and is, therefore, developing into a multi-domain system provider,” predicted Armin Papperger, Chief Executive Officer

of Rheinmetall AG, when the transaction with NVL was completed. He referred to the current geopolitical situation and emphasised that it will increasingly come down to “military enforcement capability” in the maritime sector too. The individual locations are specialised in certain areas for efficiency: as repair locations, Norderwerft and Neue Jadewerft see to both commercial units and naval vessels, whilst Peene-Werft is in charge of building naval vessels and coastguard boats, which are then sent to Blohm+Voss for fitting, commissioning and testing.

“By maintaining fleets throughout their entire life cycle, we help keep the German and other navies around the world ready to go,” explains Tim Wagner, CEO of Rheinmetall’s Naval Systems division. A recent example of in-house shipbuilding activities is the Lübeck, the tenth K130 corvette, which was christened in Hamburg at the end of April. The ship was developed under the leadership of NVL (now Rheinmetall’s Naval Systems division) and completed in collaboration with TKMS and GERMAN NAVAL YARDS in Kiel. Wagner considers the construction of the corvette series to be a shining example of successful collaboration between the individual shipyard locations. Whilst the bows were built in Bremen and Kiel, the five sterns were assembled in Wolgast. The two halves of the ships were then transported to Blohm+Voss in Hamburg, where they were joined together and finished.

Besides shipbuilding, the Naval Systems portfolio also includes research and development of autonomous maritime surface systems. The division talks about Manned-Unmanned Teaming (MUM-T), which refers to maritime solutions that combine manned systems like frigates and unmanned systems like surface drones. In April, Naval Systems announced the start of production of the Kraken K3 SCOUT series, an unmanned maritime platform that, depending on the configuration, can be used for maritime surveillance, to protect critical infrastructure and as a weapons platform for military operations. This unmanned surface vessel (USV) is produced at

The AMC12 is a test bed for unmanned and autonomous surface ships that was developed in collaboration with partners.



Blohm+Voss as part of a joint venture with the British Kraken Technology Group under the company name Rheinmetall Kraken.

Rheinmetall also introduced the twelve-metre-long AMC12 operational boat in April, an autonomous-capable test bed that, thanks to interchangeable modules, enables flexible integration of various technologies, from navigation and sensor systems to communication solutions and AI applications. Potential functions include protecting pipelines and offshore wind farms, surveillance and defence. Rheinmetall developed the AMC12 in strategic collaboration with IBM, Anschütz and besecke. The range of services in this segment is rounded off with an operator model that goes by the name Intelligence, Surveillance and Reconnaissance as a Service (ISRaaS). With this model, Rheinmetall offers its customers an effective solution for continuous surveillance of predefined areas of the sea with unmanned boats. Collected using state-of-the-art sensors, the data are compiled at a data centre and then provided to the customer for comprehensive situational awareness and anomaly detection. The company is in charge of all procurement, maintenance and operation of unmanned patrol units.

“Development is moving rapidly towards the automation, modularity and scaling of series production,” says Wagner, looking to the future. But the focus will largely shift to USVs and hybrid fleets in the future. “In current conflicts, we’re experiencing a dynamic that is increasingly influenced by autonomous and highly automated systems. In addition, security risks to maritime infrastructure have increased in the North and Baltic Seas. We need to find effective answers to these threats,” explains Wagner. “Autonomous underwater and surface systems have the advantage of offering fast and flexible responses, reduced risk for the crew and high operational efficiency.”

Peene-Werft in Wolgast specialises in the construction of naval vessels and coastguard boats.

FACTS

NAVAL SYSTEMS

FOUNDED

1 March 2026 as a division of Rheinmetall AG

EMPLOYEES

Approx. 2,000

PRIMARY AREAS OF ACTIVITY

Maritime shipbuilding solutions, research and development of autonomous maritime surface systems

LOCATIONS

Bremen, Hamburg, Lemwerder, Wilhelmshaven and Wolgast, plus design offices and branches in Egypt, Brunei, Bulgaria, Croatia and Singapore

More information:

www.rheinmetall.com/de/unternehmen/divisionen/naval-systems

ENERGY TRANSITION HUBS

As central transshipment hubs for the import and export of energy sources like hydrogen, ammonia and other green derivatives as well as synthetic energy sources like LNG, German ports play a decisive role in achieving climate targets, which is why the ports are committed to creating a suitable infrastructure for intermediate storage and offering solutions for efficient onward transport into the hinterland. In addition, they aim to establish a dedicated infrastructure for bunkering and storing alternative fuels and thus further promote the retrofitting of ship engines. And then there is the issue of shore power, which plays an equally key role in reducing emissions. Moreover, the ports plan to establish themselves as a strong partner for offshore wind energy, as the enormous rotor blades, tower segments and foundations can only be shipped and assembled via sea-based heavy-lift terminals. A wide range of challenges have therefore been high on the climate protection agenda for locations like Bremerhaven and Cuxhaven for quite some time now. (bre) ■



LOGISTICS PILOT

ISSN 2195-8548

Publisher:

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Publishing house:

DVV Media Group GmbH
Heidenkampsweg 73–79 20097 Hamburg
www.dvmedia.com

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Layout:

Monique Dobrzela

Translation:

translektion

Printer:

müllerditzten, Bremerhaven www.muellerditzten.de
de printed on 100% recycled FSC-certified paper

LOGISTICS PILOT is published four times a year in a print run of 5,000 copies (German). Contents can also be viewed at www.logistics-pilot.com. To view them, please scan the QR code.

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THIS MAGAZINE IS A JOINT PROJECT OF

bremenports GmbH & Co. KG
Bremische Hafen- und Logistikvertretung e. V.
JadeWeserPort-Marketing GmbH & Co. KG
Seaports of Niedersachsen GmbH



www.logistics-pilot.com

COOPERATION BEATS COMPETITION

GOOD
NEWS

No, refusing to seek joint solutions and striving solely for one's own advantage is not a social trend. Indeed, people from all over the world are more willing to cooperate than was expected. This was proven in a new global study entitled "Homo cooperans": understanding the nature of human cooperation".

"As a species, we are more likely to cooperate than we thought. This insight is not only scientifically relevant it is also socially important, as it shows the prerequisites for joint actions in many fields are actually better than is often assumed. Whether it is a matter of well-functioning institutions or providing public commodities such as clean air, public safety or a stable climate – many of the major challenges of our age can only be overcome if people are willing to look beyond their own interests and contribute to the common good."

Following the experiment carried out on 100,000 persons from 125 countries, the research team ascertained that 69 per cent of the participants went for cooperation and decided against the "non-cooperation" option. This was interesting, since the non-cooperation option would have netted each one 100 US dollar, whilst the "cooperation" option was rewarded with 70 US dollars. However, if the test subjects decided in favour of cooperation, an additional amount of 400 US dollars was donated to the fight against global warming. Furthermore, those surveyed expected, on average, that only around 47 per cent of the subjects would opt for "cooperation" – thereby considerably underestimating the willingness to cooperate with their fellow participants.

(bre)

Prof. Armin Falk:

Armin Falk, Professor of Economics at the University of Bonn. He is the co-author of the study which appeared in the well-known economic journal Science alongside Professor Teodora Boneva (University of Bonn), Professor Peter Andre (Goethe University Frankfurt) and Professor Felix Chopra (Frankfurt School of Finance).



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