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SMM 2026 welcomes friends and partners



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Christoph Lücke (left) and Claus Ulrich Selbach set the stage for this year's SMM at the International Maritime Museum in Hamburg

"Maritime Season" has begun once again in Hamburg. With the world's leading trade fair of the industry returning to the city for what is now the 32nd time in a row, the "Messehallen" will become the center of the maritime world for this week, running from Tuesday to late Friday afternoon. This year, more than

2,200 exhibitors are going to be at SMM, with more than 40,000 visitors coming from all over the world.

At the evening reception on Monday at the International Maritime Museum, Claus Ulrich Selbach, Vice President Exhibitions Maritime at Hamburg Messe und Congress, and SMM Director Chris-

toph Lücke welcomed all guests, exhibitors and representatives from governments and institutions alike before diving into one of the core topics of this year's SMM.

"Resilience is, first and foremost, about security," said Lücke. "That is where there is a major focus on this at

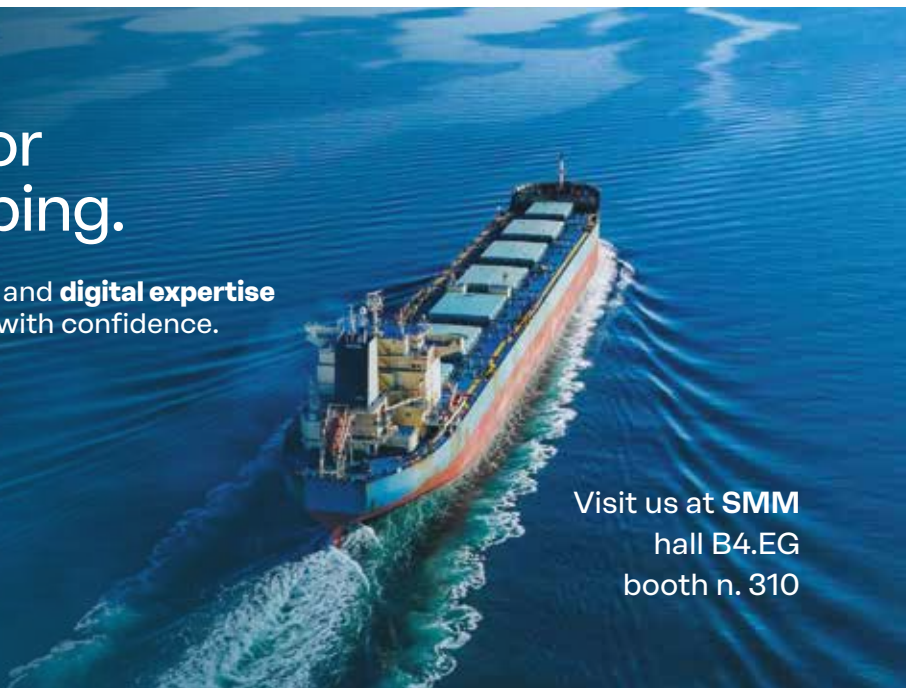
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After a stopover at SMM, the propeller will continue its journey to China

SMM 2026, including the Naval Hall. Of course, resilience also encompasses sustainability. Across all twelve halls, you will find solutions for meeting IMO environmental standards."

"New Kids on the SMM Block"

"Security is a key theme, particularly in conjunction with the MS&D event," added Selbach. "We also have some 'New Kids on the SMM Block' in the form of two new conferences: all about ports and LogiNext Germany."

MS&D will take place on Thursday, whereas all about ports and LogiNext both are two-day events spanning Wednesday and Thursday.

Lücke concluded by wishing all visitors a "wonderful time" in Hamburg. "Exchange ideas," he said, "build partnerships, reconnect with old friends and make some new ones."

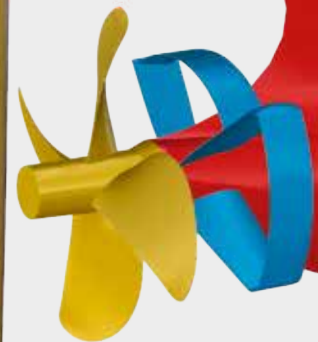
Propeller installation: a long-standing tradition

Last week, the traditional installation of the propeller in front of the main entrance to the exhibition grounds marked the start of SMM 2026. For more than 20 years, it has been the landmark of the world's largest shipbuilding trade

fair. This year, the SMM landmark is a 35.5-tonne propeller with a diameter of 7.8 m. It was manufactured by German company MMG – Mecklenburger Metallguss – based in Waren an der Müritz. In an elaborate heavy transport operation, the SMM landmark was transported from Mecklenburg to Hamburg and positioned in front of the exhibition grounds using a heavy-duty crane.

Hamburg is only a stopover for the propeller. It is not a trade fair exhibit, but an order from South Korea. The propeller is destined for the 4,300-TEU containership "KMTC Nhava Sheva" operated by Korean shipping company Korea Marine Transport.

The vessel was built at Samsung shipyard in South Korea in 2008. The propeller was designed as a replacement propeller by MMG in Waren (Müritz), where it was also manufactured. Following delivery to the customer, it will replace the vessel's original propeller to improve efficiency for its current operating profile. According to MMG Managing Director Lars Greitsch, the new propeller is expected to improve propulsion efficiency by 5 to 7 % compared with the original propeller, depending on vessel speed. The supplied MMG ESCAP fin cap is expected to provide an additional fuel saving of around 2 %. The propeller replacement will take place during docking at a Chinese repair yard.



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Friedrich Merz

Federal Chancellor of Germany



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“Shipping is the lifeline of the global economy”

As the world's leading maritime industry event, this year's SMM is taking place at a time when international shipping and European shipbuilding face landmark decisions. Geopolitical tensions, fragile supply chains, increasing maritime security requirements and the path to climate neutrality make determination, innovativeness and close cooperation imperative.

Shipping is the lifeline of the global economy. It ensures our prosperity and supplies us with goods. To sum it up, no shipping means no shopping. Likewise, no shipbuilding means no shipping, as the prerequisites for modern, safe and sustainable shipping can only be brought about by an efficient and technologically leading shipbuilding industry. Germany and Europe have a strong maritime industry, excellent research and great innovativeness in this sector.

We must use these strengths decisively because we will only be able to meet the demands of tomorrow's maritime industry by making greater use of digitalisation and artificial intelligence,

more sustainable technologies, and efficient production and value-added chains.

SMM is the central international platform for turning innovations into market-ready solutions, concrete projects and commercial contracts. At the same time, the International Conference on Maritime Security & Defence, an important part of this trade fair, underlines the growing importance of maritime security. Safe shipping routes and resilient critical infrastructure are vital for free trade, stable supply chains and investment security. The close dialogue between industry, the security authorities and policymakers is thus of crucial importance.

I am pleased to have taken on the patronage of this year's SMM. As an outstanding location for the maritime industry, the Free and Hanseatic City of Hamburg is the ideal setting for this trade fair. I hope that the exhibitors and visitors from all over the world will experience inspiring meetings, successful talks and game-changing ideas for the future of the maritime industry.

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Anglo-Eastern
Germany



Konstantin Pohsin
Fleet Captain
Fairplay Towage



Gert-Jan Panken
GM and Vice President
Inmarsat Maritime



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Jannik Westerkamp**
Editor
Hansa News Global

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From Naval Hall to Start-ups: SMM 2026 sets new priorities

From 1 to 4 September 2026, Hamburg once again will be hosting “Shipbuilding, Machinery & Marine Technology”, the world’s leading maritime trade fair. With a dedicated Naval Hall, the new Energy Efficiency Hub and 19 start-ups, SMM is setting several new priorities this year

Security, efficiency, innovation: these are the themes shaping SMM 2026 in Hamburg. The world’s leading maritime industry event takes place from 1 to 4 September. According to the organisers, more than 2,200 exhibitors and around 50,000 international participants from 120 nations are expected, spread across twelve exhibition halls. The patronage of Federal Chancellor Friedrich Merz, according to SMM, underlines the political and economic significance of the event.

Maritime security receives its own hall

A central new element of SMM 2026 is the Naval Hall. Hall B8 gives maritime security and defence its own dedicated hall for the first time, combining exhibition, conference programme and the new Naval Stage. During the first week of September, more than 50 companies and organisations will present technologies for naval vessels, maritime surveillance, communications, underwater applications as well



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Around 50,000 visitors are expected to attend the exhibition in Hamburg

as automation and satellite technologies. Exhibitors include Rheinmetall Naval Systems, Kongsberg Ferrotech, Bosch Rexroth, Rohde & Schwarz, Telespazio, Emerson – Damcos, PGZ Stocznia Wojenna and Elac Sonar. Across the wider exhibition grounds, companies such as Fincantieri, Damen Shipyards, Navantia, Fassmer, Anschütz and Hensoldt will present fur-

ther solutions for maritime security and dual-use applications; in total, more than 150 additional exhibitors will showcase related technologies.

Concrete examples include drive and control technologies from Bosch Rexroth for naval and defence applications, demonstrated live as motion platforms at the company’s stand. Kongsberg

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Ferrotech is presenting a patented, robot-based solution for underwater hull repairs that enables shipyard-level repairs without the vessel needing to enter dry dock or interrupt operations. Telespazio is showcasing a new generation of satellite-based communication solutions, including a multi-orbit architecture and the AI-supported T-BOX EVO for secure, resilient connectivity at sea.

"SMM has always evolved alongside the maritime industry. Maritime security, defence and dual-use technologies have been an integral part of our exhibition and conference programme for many years. With the Naval Hall, we are now taking the next step by creating a dedicated hall and stage for this important sector", says Claus Ulrich Selbach, Vice President Exhibitions Maritime & Energy at Hamburg Messe und Congress (HMC).

A further focus of the Naval Hall is the transfer of new technologies into practical application. The Bundeswehr Innovation Centre (InnoZBW) demonstrates how collaboration between start-ups, research institutions and industry can bring innovations to operational readiness more quickly.

The offering is complemented by the Dual-Use Tech Newcomer Zone and Start-up Speaker Slots. "Innovation plays a key role for defence capability today and is also of central importance for maritime security," says Flotilla Admiral Bock, head of InnoZBW. »The Naval Hall creates the right conditions for this within the framework of SMM.« To help innovations reach procurement processes more quickly, the

Naval Hall also offers dedicated matchmaking formats connecting industry, procurement organisations and potential suppliers. A key element is the BME Buyers' Day, taking place for the first time as part of SMM on 1 September, organised in cooperation with the German Association for Supply Chain Management, Procurement and Logistics (BME), Germany's leading professional association for procurement, supply chain management and logistics. The focus is on strengthening European supply chains, expanding shipyard capacity, autonomous systems and helping new companies gain access to the defence market. Also being introduced is SVI Connect, a platform funded by the Federal Ministry for Economic Affairs and Energy and run by BME together with the German Association of the Security and Defence Industry (BDSV), which digitally connects procurement organisations, the defence industry and potential suppliers, and is designed to make it easier for new and dual-use companies to enter the defence supply chain.

MS&D conference with high-profile keynotes

A central programme element of the Naval Hall is MS&D – International Conference & Expo on Maritime Security & Defence, taking place on 3 and 4 September on the Naval Stage and open to all participants free of charge. Together with sessions on 1 and 2 September, this forms a four-day programme. Confirmed keynote

speakers include Vice Admiral Carsten Stawitzki, Germany's National Armaments Director, and Vice Admiral Axel Deertz, Deputy Inspector of the Navy and Fleet Commander. Under the theme »Maritime Security & Defence in a Rapidly Changing World«, the programme covers topics including Europe's future security architecture, capability development for European navies, the underwater domain, IT, cyber and space aspects of maritime security, and manned and unmanned systems. The conference programme is curated by the German Maritime Institute (DMI), in cooperation with Mittler Report and the German Navy Command. The MS&D Expo presents the naval and dual-use ecosystem across around 3,000 m².

"Security challenges in the maritime domain continue to grow. With MS&D, we are creating a platform where navies, industry and technology providers can jointly develop solutions, drive innovation and strengthen cooperation" says Selbach. "At the same time, we are bringing together global shipyards, naval players and dual-use innovators, creating a central venue for international procurement and innovation dialogue at the highest level."

"The MS&D conference brings together the players who are decisive for Europe's maritime security – from military stakeholders to political decision-makers and innovative companies. This dialogue is more important than ever," says Rear Admiral (ret.) Karsten Schneider, President of the DMI. "Time is a decisive factor for our security. To build credible deterrence, na-

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vies, industry and politics must work more closely together and reach joint solutions faster,« adds Flotilla Admiral Dirk Gärtner, Head of the Planning and Concepts Department at the German Navy Command. Norbert Blumenthal, Head of Sub-Division "Armaments III" at the Federal Ministry of Defence, further stresses that industry must deliver projects reliably in terms of time, budget and quality. And Dr Moritz Brake, founder and managing director of the think tank Nexmaris, says: "Maritime security today is a central component of our economic competitiveness and strategic capacity to act. Platforms such as SMM with its Naval Hall provide the space needed for that."

Energy efficiency in focus

SMM 2026 is also breaking new ground on energy efficiency with a novel format: the Energy Efficiency Hub. The maritime industry faces the challenge of significantly reducing emissions while remaining economically competitive. As it remains unclear which climate-friendly fuels will ultimately prevail in the long term, measures that directly reduce energy consumption are gaining importance. Under the theme "Efficiency First: Powering the Future of Shipping", 24 companies from Europe, Asia and the Middle East are presenting market-ready approaches on more than 200 m². The hub – an international joint stand with 16 companies plus eight individual exhibitors – is fully booked. The offering spans the entire value chain, from



19 start-ups from Europe, Canada and Asia will present themselves on two joint area

digital optimisation and performance systems, AI-based applications and energy management, to hybrid and electrification solutions, wind-assist systems, solar technologies, onboard carbon capture and storage (OCCS), retrofit solutions and alternative fuel concepts.

An industry challenge

The competition for skilled workers is, according to organisers, one of the industry's biggest challenges. According to the current Seafarer Workforce Report by BIMCO and the International Chamber of Shipping (ICS), more than 113,000 additional ship officers will be needed worldwide by 2030. SMM 2026 addresses this with the Maritime Career Market on 3 and 4 September in Hall B2, upper floor. Around 30 exhibitors from industry and academia will present training and career

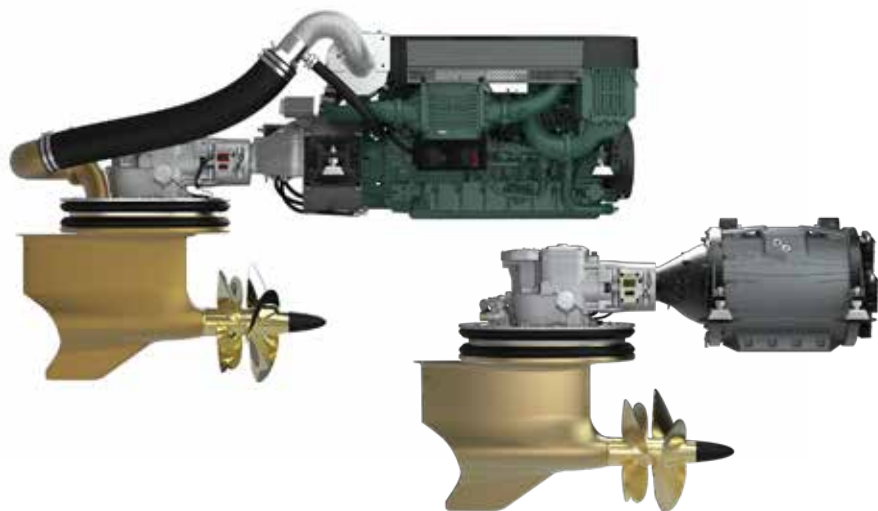
paths, supported by the Career Forum, the Career Happy Hour, the Job Route and the school rally organised by the German Shipbuilding and Ocean Industries Association (VSM). »What will be decisive for our competitiveness is attracting enough qualified professionals and young talent,« says Reinhard Lüken, Chief Executive Officer of VSM.

Innovation power of Start-ups

With Start-ups@SMM, the fair once again puts young companies centre stage. From 1 to 4 September, 19 start-ups from Germany, Europe, Canada and Asia will present themselves on two joint areas in Halls A3 and B6, complemented by the Start-up Route.

The focus is on artificial intelligence, robotics, autonomous systems, digital analysis tools, and technologies for energy

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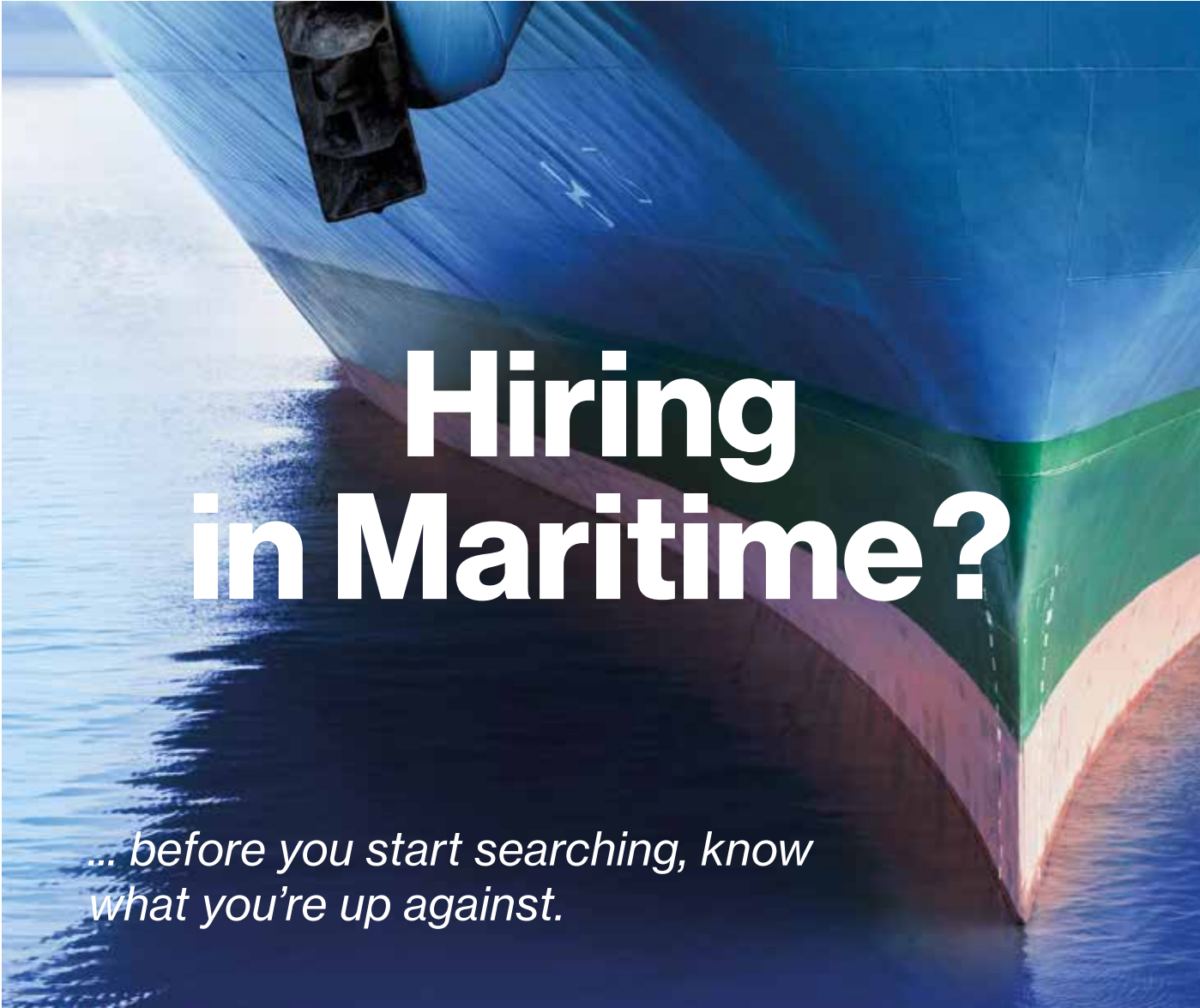


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efficiency and sustainability. A selection of 16 participating companies can be found on pages 42–47.

International participation continues to grow

The increasingly international character of SMM 2026 is also reflected in the number of national pavilions and participating countries. According to the organisers, 26 national pavilions will be represented at this year's event, two more than at the previous SMM in 2024. Companies from eleven countries will exhibit at the fair for the first time, while several maritime nations are expanding their presence in Hamburg.

New official national pavilions from Cyprus and Brazil will make their debut, while India and Vietnam will also be represented officially for the first time. In addition, companies from Luxembourg, Azerbaijan, the Philippines, Andorra, the Bahamas, Slovakia, Ireland, Saudi Arabia, Lebanon and Curaçao are taking part in the exhibition for the first time.

"SMM is today more than ever the central meeting point for the maritime industry.

Companies, associations and governments use the event to jointly develop responses to the challenges facing the sector. The growing international participation shows that personal exchange across national borders is more important than ever" says Claus Ulrich Selbach, Vice President Exhibitions Maritime &

Technology at Hamburg Messe und Congress.

India expands its maritime presence

India is significantly increasing its presence at SMM 2026. For the first time, the country's Ministry of Ports, Shipping and Waterways (MoPSW), together with the Indian Ports Association, is organising two official Indian joint pavilions. These will be located in Hall B3, upper floor, and in the new Naval Hall B8.

Around 35 exhibitors from India are expected to participate. They include Chowgule & Company Private Limited, Buoyancy Consultants & Engineering, Swan Defence and Heavy Industries, Vedam Design & Technical Consultancy, Marine Electricals (India) Limited and Synergy Shipbuilders N Dock Works Ltd. In the Naval Hall, the Indian Ports Association will be joined by Cochin Shipyard and Garden Reach Shipbuilders & Engineers.

The larger exhibition presence comes as India seeks to expand its position as a shipbuilding and maritime technology location. Port infrastructure, shipbuilding capacity as well as digital and more sustainable maritime technologies are among the areas being developed.

India will also have a prominent role in the SMM conference programme. Shri Vijay Kumar, Secretary of the Ministry of Ports, Shipping and Waterways, is scheduled to participate in the Official Opening Conference with a contribution entitled "In-

dia Perspective: Global Maritime Growth & Connectivity". A separate Open Stage session, "The India Opportunity: Investing in Shipbuilding & Shipping Cluster", will focus on investment opportunities, the development of shipbuilding capacity and maritime clusters as well as possibilities for international cooperation. A high-ranking Indian naval and government delegation is also expected in Hamburg.

India will additionally be represented at All about Ports, SMM's new port conference. Shri Vijay Kumar is due to take part in its official opening. A dedicated India session will examine the development of Indian ports into competitive, technology-based and more sustainable logistics hubs as well as the investment opportunities resulting from this transformation.

Brazil, Cyprus and Vietnam make their debut

Brazil will have a national pavilion at SMM for the first time. The joint stand is being organised by the Brazilian Association of Companies of the Blue Economy (ABEEMAR), which represents companies active in different areas of the country's blue economy. Exhibitors at the pavilion include Flexprin Industria and Diesel Line. Cyprus is also presenting an official national pavilion for the first time. It is being organised by the Republic of Cyprus Ministry of Energy, Commerce and Industry in cooperation with the Shipping Deputy Ministry and the Cyprus Trade Centre in Berlin. **JWY**

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TAMM Media presents its portfolio



TAMM Media will present its portfolio of publications covering the maritime and defence industries and addressing current geopolitical issues

TAMM Media will use SMM 2026 to present its portfolio of maritime and security publications and provide a meeting point for industry professionals to exchange ideas, discuss current developments and establish new contacts.

Founded in 2009, TAMM Media is headquartered in Hamburg and also has offices in Bonn and Berlin. The group comprises Schiffahrts-Verlag HANSA, Mittler Report Verlag and Maximilian Verlag with the dvp, Koehler and Mittler publishing brands, covering a broad range of specialist publications and information services.

Schiffahrts-Verlag HANSA publishes the HANSA International Maritime Journal and Binnenschifffahrt. In addition to the monthly print magazines, the portfolio includes the English-language news platform hansa.news global, a weekly newsletter and podcasts covering developments in shipping, shipbuilding, ports, maritime policy, the supply industry, offshore wind and related sectors. The portfolio also includes HANSA Yachts, published twice a year, and the monthly HANSA Yachts

newsletter. The publisher also organises the annual HANSA Forum conference, bringing together representatives from across the maritime industry.

Mittler Report Verlag, based in Bonn, specialises in publications covering naval affairs, security and defence policy, the armed forces, defence technology, IT and cybersecurity as well as public safety. Its German and English-language magazines are complemented by background services and specialist conferences bringing together experts from government, industry and the armed forces for professional exchange.

Visitors to the TAMM Media stand will have the opportunity to learn more about the group's publishing activities, events and specialist information services and to meet members of the publishing teams in person.

On Thursday during SMM, the HANSA team will be at the TAMM Media stand from 12:00 to 14:00 and invites friends, partners and industry contacts to stop by for an informal exchange and conversation.

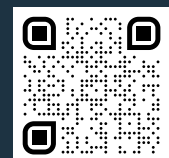
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Geopolitics and the IMO: “We should not shy away from acting”

IMO Secretary-General Arsenio Dominguez provides HANSA insights into his view on the conditions currently facing the maritime industry. The maritime diplomat from Panama discusses environmental regulation, security matters as well as the work and life of seafarers

Mr. Secretary-General, do you have a specific message for the maritime industry and this year's SMM?

Arsenio Dominguez: Shipping has never been more firmly in the global spotlight. The challenges in the Red Sea, Black Sea and Sea of Azov and in the Strait of Hormuz have tested the resilience of the industry, threatening the safety and security of seafarers and shipping. At the same time, the sector is undergoing a major transformation, including the energy transition, digitalisation and new technologies.

At moments like these, we must reaffirm the principles that are fundamental for the shipping industry: freedom of navigation, the protection of seafarers and the rules of international maritime law. It is our collective responsibility to stand up for our sector and ensure that shipping remains safe, secure, efficient and sustainable for the future. That applies for all - whether it is a government authority, ship



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Arsenio Dominguez – Secretary General of International Maritime Organization in London

owner, manager, operator or master. I hope this comes out clearly at this year's conference.

One of the key aspects at SMM in Hamburg will be the global decar-

bonization – and thereby the environmental regulation. How satisfied are you with recent developments in the IMO and its committees regarding environmental regulation and the Net Zero Framework?

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Dominguez: Member States remain committed to decarbonising shipping, and I welcome the efforts to find a practical global framework that the entire industry can support and implement. The latest meeting of the Marine Environment Protection Committee (MEPC 84 in April 2026) demonstrated that despite divergences in positions, there is a shared determination to move forward in agreeing on a global measure. In the meantime, the technical work has continued without interruption. The MEPC is continuing to update guidelines for the life cycle assessment of alternative fuels and has started the work on IMO's Fifth GHG Study. The Maritime Safety Committee (MSC 111) has approved new interim guidelines for the safe use of hydrogen and ammonia, adding to other interim guidelines for other fuel types, as well as interim training guidance for seafarers serving on ships using methyl/ethyl alcohol and ammonia as fuel.

What do you expect from the coming months?

Dominguez: At MEPC 84, Member States agreed to establish an intersessional Working Group to address outstanding issues and build greater consensus ahead of MEPC 85 which will be held from 30 November to 3 December. I look forward to the discussions over the months ahead, including the intersessional meetings in



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The meetings of the MEPC Environment Committee – here in April 2026 – are always well attended and a site of controversial debate

September and November as we work towards further progress at MEPC 85 and the proposed resumed extraordinary session on 4 December.

»I am confident that Member States will provide greater clarity on the way forward for the IMO Net-Zero Framework«

What do you expect in the medium and long term with regards to environmental regulation?

Dominguez: I am confident that Mem-

ber States will provide greater clarity on the way forward for the IMO Net-Zero Framework. While a number of proposed amendments to MARPOL Annex VI remain under consideration and new ones are put forward, there is already sufficient common ground to deliver meaningful progress. In the negotiations ahead, Member States will need to balance ambition with pragmatism and flexibility across all elements of the draft measures - technical and economic alike.

Beyond this, there are several important milestones ahead, including the adoption of the revised annex to the Ballast Water Management Conven-

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Arsenio Dominguez seeks contact with the maritime industry; here, he is attending a vessel launch at a Dutch shipyard

tion and amendments to the NOx Code to support the certification of engines using alternative fuels. IMO has also begun developing a standalone legally binding instrument on biofouling, an important step towards reducing the spread of invasive aquatic species and strengthening the environmental sustainability of global shipping.

Also, security matters and geopolitics are attracting more and more attention in the shipping industry and at SMM. Do you expect or are you con-

cerned that these developments could have a (potentially negative) impact on the work of the IMO?

Dominguez: The Middle East conflict this year has only shown how important it is to maintain a robust global maritime regulatory framework and for stakeholders to implement the rules. IMO is a technical agency of the United Nations responsible for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. Its mandate is very clear.

At the same time, we do not operate in a vacuum. Geopolitical developments inevitably affect our work, and we should not shy away from acting, within our mandate, to address the operational challenges that may arise.

Not least, the work and life of seafarers is one of the key factors in current maritime debates. Do you think this topic is being given sufficient consideration by the decision- and policy-makers?

Dominguez: We can always do more. Without seafarers, ships do not move, goods do not reach markets, and the world economy simply does not function. Yet in times of

»If I had to choose one area that deserves more attention in the international maritime industry, it would be people«

crisis, from the COVID pandemic to tensions in the Strait of Hormuz, it is seafarers who bear the greatest risks. That is why I spare no effort in advocating for their safety and protection. Seafarers' roles are also



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changing. As shipping becomes more digital, more automated and more technologically advanced, the demands on seafarers are increasing.

To what extent does IMO take this shift into account in its work?

Dominguez: That is why IMO is carrying out a comprehensive review of the STCW Convention, so that training and certification keep pace with the realities of a modern industry. IMO is updating the International Safety Management Code to address issues such as prevention of violence and harassment on board ships, including sexual harassment, bullying and sexual assault, and reviewing regulations related to fatigue and hours of work and rest. IMO continues to work closely with the International Labour Organization to improve the way we prevent and respond to cases of seafarer abandonment.

In short, if we want to attract the next generation of seafarers, we must value their skills and protect their wellbeing.

Generally speaking: Which topic deserves more attention in the maritime industry and its associated regulation, from your point of view?

Dominguez: If I had to choose one area that deserves more attention, it would be people. That starts with diversity, particularly in terms of improving women's participation in the industry. Shipping should be able to attract talent from the widest possible pool and give everyone the opportunity to succeed. It also means supporting and highlighting seafarers, who remain largely invisible to the broader public, even though they keep global trade moving every single day. We can listen more to their experiences and tackle the issues that matter most to them, whether that's better training, stronger workplace protections, or fair treatment throughout their careers.

Interview: Michael Meyer

Arsenio Dominguez from Panama ...

... has been elected as the Secretary-General of the IMO with effect from 1 January 2024, for an initial term of four years. Dominguez thus succeeded the Korean maritime diplomate Kitack Lim, who led the IMO for two terms. He joined the IMO from the Panama Maritime Authority in 2017 and has been Director of IMO's Marine Environment Division since January 2022. He graduated in 1988 with a Bachelor of Science degree from the Fermin Naudeu Institute in Panama. He went on to study Naval Architecture at the University of Veracruz, Mexico, graduating in 1995. Dominguez also holds an MBA from the University of Hull, and a Certificate of Higher Education in International Law and European Politics from Birkbeck University.



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ABS hosts Innovation Summit ahead of SMM



Industry representatives at the "ABS Innovation Summit 2026" on Monday in Hamburg

© ABS

Shipping industry leaders, technology pioneers and innovators gathered at the ABS Innovation Summit 2026, Future In Focus, on Monday to explore the technologies rapidly reshaping maritime operations and asset performance.

Centered on turning innovation into operational value, the summit featured live demonstrations of advanced technologies addressing some of the industry's most persistent challenges. Solutions on display included autonomous robotics, additive manufacturing, AI-powered analytics and next-generation inspection drones, showcasing how emerging technologies are moving from pilot projects to practical deployment at scale. Participating companies included Flyability, A*Star, Fleet Robotics and Enki Marine.

"The maritime industry is entering a new technology cycle defined by AI, automation, robotics and advanced data ecosystems," said Patrick Ryan, ABS Senior Vice President and Chief Technology Officer. "These technologies are no longer emerging concepts. They are becoming operational tools with the power to transform safety, efficiency and asset performance. The challenge for industry leaders is no longer identifying innovation. It is understanding which technologies are mature enough to deliver value today and how to inte-

grate them at scale. That is why forums like the ABS Innovation Summit are so important."

The accelerating pace of maritime innovation was examined in a fireside chat between ABS Chief Strategy Officer Geoff Wagner and Marina Hadjipateras, founder of venture capital firm TMV. The discussion explored how strategic investment is helping bridge the gap between technological breakthroughs and industry adoption. TMV recently launched a fund dedicated to maritime and logistics innovation and safety, backed by ABS and Prologis Ventures.

The impact of digitalization, connected assets and artificial intelligence on the maritime asset lifecycle was the focus of a panel featuring representatives from Oldendorff Carriers, HD Hyundai, Complexio and Everllence.

The discussion examined how digital technologies are transforming vessel design, construction, operations and maintenance through data-driven decision-making, predictive insights and increasingly autonomous workflows. Panelists emphasized real-world applications and measurable operational outcomes rather than theoretical possibilities.

Hall B3 | Booth 200

Furuno showcases latest marine electronics

At SMM 2026, Furuno will present its latest advancements in marine electronics and solutions. The company wants to continue to set the standard for performance and safety at sea with its outstanding portfolio. Highlights include the AR-100M (AR Navigation), an Augmented Reality system that overlays critical navigation data onto live camera feeds, enhancing situational awareness even in adverse conditions. The VNS-100 (VR Navigation) system complements this by providing immersive, technology-driven navigation support.

The Maneuvering Support System supports decision-making by presenting collision avoidance routes, while the Global Ocean Forecast Data Service provides high-resolution and high-accuracy forecast data. The Iridium GMDSS Terminal for Iridium Certus® 100 (SOLION-100) delivers reliable global maritime safety communications, including coverage in polar regions.

The PS-100 Voyage Planning System facilitates seamless route creation, editing, and sharing, optimizing both safety and efficiency, and Furuno's Anti-Jamming/Spoofing solutions (FFSP-100, FFGR series) provide real-time GNSS interference monitoring and high-precision positioning, ensuring compliance with maritime regulations. HermAce delivers advanced cybersecurity and remote monitoring, safeguarding vessel networks against cyber threats while enabling predictive maintenance and remote troubleshooting, while TELSCOPE offers a paperless electronic record book solution. The Smart Bridge NXT consolidates radar, ECDIS, sonars, and more into one adaptable platform, empowering crews with a scalable, user-centric solution.

EMRI's latest vessel control solutions, including AutoPilot Mini Display, SpeedPilot, JS/DP, and the upcoming AnchorPilot,

further enhance operational efficiency. MetalVox, with its patented "MetalWave" technology, specializes in maritime UHF radio communication systems, ensuring reliable communications across water.

Furuno Maritime Training, the official training partner, provides premium, certified courses through expert instructors, with over 210,000 seafarers trained via the global NavSkills™ network.

Hall B6 | Booth 100



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Furuno presents its portfolio for safe navigation



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Milestone for fireproof bulkhead seal



© ProfiSeal

Fireproof bulkhead seal

ProfiSeal from Schornsheim, Germany, is a specialist in sealing and bearing technology for commercial and recreational shipping. I

In 2015, the company launched the world's first fireproof bulkhead seal for drive shafts. Since then, more than 100 units have already been sold, marking an important milestone for the company and its sealing technology.

With more than 25 years of experience in sealing and bearing technology, ProfiSeal specialises in the development and manufacture of reliable and durable stern tube and bulkhead seals for the shipbuilding and yachting industry. A breakthrough of a special

kind in this field was the specially developed and the world's first fireproof bulkhead seal for drive shafts. The design provides for carbon dioxide to be released inside the seal in the event of a fire, which protects the actual sealing rings by smothering the fire at this point. This prevents a fire in the engine room from spreading further into the ship. This automatic process of fire smothering is made possible by the behaviour of the material used for the split sealing rings, which are made of synthetic carbon without the PTFE plastic additives otherwise used for standard seals.

The bulkhead seal itself was additionally clad and insulated against heat with the classified insulation material "Firemaster". The system is fire resistant A-60 and watertight and type-approved according to IMO 2010 FTP Code, Part 3 and MSC85/26, Add. 1, Annex 22.

With more than 100 systems sold, ProfiSeal has now recently celebrated reaching a milestone. "It is quite something to be the world's first supplier of a particular product," says ProfiSeal's Managing Director Tobias Müller. "We are more than pleased that the product has been so well received and that we have thus been able to make an important contribution to fire protection on ships."

BV, the digital class

Bureau Veritas Marine & Offshore (BV) will present a series of events focusing on how digitalisation is reshaping classification and shipping. A key highlight will be AGS 3D, the company's digital inspection solution, which transforms survey data into 3D models of vessels and offshore assets. Using AI-enabled analytics, AGS 3D is designed to detect, locate and map corrosion, cracks and structural anomalies, creating a digital record of an asset's condition. According to BV, the system supports more consistent inspections, predictive maintenance and data-driven asset management, helping owners optimise maintenance planning and vessel availability.

BV will also present its remote inspection techniques (RIT), which combine drone technology with the expertise of specially trained surveyors to inspect hazardous and hard-to-reach spaces. According to the company, the approach reduces the need for confined-space entry and minimises vessel downtime while capturing inspection data. Integrated with AGS 3D and AI-enabled inspection analytics, RIT is designed to support asset assurance and help owners meet compliance and classification requirements.

BV will also showcase its classification and advisory services supporting the maritime energy transition. These include alternative fuels, future-ready ship design, regulatory compliance, risk management and decarbonisation strategies.

Hall A3 | Booth 406

Hall B3 | Booth 103



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How the UK Hydrographic Office is putting mariners at the heart of next-generation navigation solutions



© UKHO

Digital navigation is becoming more integrated and data-driven

Navigation is entering a new, more digital and data-driven era. Where mariners once relied on paper charts and printed publications, today's bridge is increasingly connected, bringing together a growing range of digital tools and data sets. These new navigation solutions are giving mariners access to more timely and granular information than ever, offering new opportunities to strengthen decision-making, improve safety and unlock operational efficiencies.

Realising these benefits, however, depends on more than simply adding more data to the bridge. To improve safety and truly add value, next-generation solutions must be grounded in the real-world experience of mariners and designed to enhance professional judgement rather than replace it. The priority for the UK Hydrographic Office (UKHO) is ensuring that additional information translates into greater confidence at sea, not greater complexity.

This means working closely with the people who rely on accurate navigational information every day and designing solutions based on their needs and workflows. From the way information is accessed during passage planning to how new data sets are displayed on ECDIS, the UKHO is working to ensure that mariners are empowered to gain greater clarity and make more informed decisions.

Improving access to navigational information

One of the most significant shifts already underway in the maritime sector is the move from digitised products to truly digi-

tal-first products. This transition is not just for the sake of digitalisation, but to improve how mariners can access and use navigational information, both during passage planning and at sea.

Admiralty Digital Sailing Directions (ADSD) is a clear example of this shift in practice. ADSD delivers the same trusted content as traditional Admiralty Sailing Directions, but in a new geo-referenced, searchable digital format. Crucially, ADSD hasn't changed the purpose or the content of the publications; it has simply made information easier to find, helping to streamline the passage planning process and freeing up valuable time for navigators.

Advances in technology are also opening new ways for mariners to engage with navigational information before they even set sail. Using the latest advances in gaming engine technology, the UKHO is currently developing Admiralty Virtual Ports (AVP). This will give mariners the opportunity to experience a 3D model of a port ahead of arrival, building familiarity with the local environment and increasing situational awareness once underway.

Both ADSD and AVP demonstrate how digital technology can enhance the navigator's role without replacing professional judgement. Developed in close consultation with mariners, these solutions are designed to give navigators greater access to relevant information, helping them build a clearer picture of their surroundings and make informed decisions with confidence.



© UKHO

Next-generation navigation puts more data at mariners' fingertips



Integrating new data sources

As the volume of navigational data continues to increase, ensuring information is accessible to mariners will become an even higher priority. The introduction of the IHO's S-100 data framework marks a major step in the evolution of navigational information, bringing together richer, more granular navigational data in an interoperable format. Where mariners have traditionally needed to consult multiple, separate references for tidal, surface current and bathymetric data, S-100 will allow this information to be layered directly within ECDIS in a single view, offering enhanced situational awareness on the bridge.

The availability of richer, integrated information on ECDIS can bring clear benefits to mariners, but only when presented clearly. More data is only useful if it can be interpreted quickly and confidently, or else it risks introducing increased complexity. To meet this challenge, the UKHO has been carrying out comprehensive S-100 trials. Working with mariners across a wide range of vessel types in both live and simulated navigational scenarios, the UKHO has been evaluating how new data sets perform in real operational conditions.

These trials are providing invaluable feedback, not just on S-100 data itself, but on how it should be displayed and how systems can function to make the data easier to interpret and act on. Insights from the trials are also being used to inform the design of training programmes, ensuring mariners are properly supported as S-100 systems are introduced.

Supporting the future of navigation

Ensuring new navigation solutions reflect the real-world needs of mariners is essential if the transition to the next generation of navigational technologies is to be safely and successfully achieved.

This means the development of these technologies must be rooted in the realities of day-to-day operations, requiring sustained collaboration between hydrographic offices, technology providers, regulators and the mariners who will use these tools

every day. Industry events such as SMM play a central role in facilitating these cross-sector conversations, bringing together the people who are shaping the future of navigation to share insight, challenge assumptions and align on best practices.

This week, the UKHO is running its Future of Navigation Forum at SMM, a dedicated programme of seminar sessions and panel discussions exploring the innovations, technical standards and wider changes affecting the maritime sector.

Visitors can find out more about the sessions and register to attend by scanning the QR code. They are also invited to visit the UKHO's exhibition stand (B6.303) to see this next generation of navigation in action, including hands-on demonstrations of ADSD and AVP, alongside live S-100 data displayed in ECDIS.

As the maritime industry moves towards a more connected, data-rich future, the UKHO is committed to ensuring that new solutions strengthen, not replace, the expertise of mariners, equipping them with the information they need to navigate with confidence.

UK Hydrographic Office (UKHO)

The UK Hydrographic Office provides mariners with trusted navigation solutions through our Admiralty portfolio, offering accurate and timely navigational information to support decision making for safe, efficient and compliant maritime navigation. Today, over 90% of large ships trading internationally carry our world-leading portfolio of SOLAS-compliant charts, publications and digital services on board.

Our products and services ensure compliance with the latest regulatory standards so mariners can navigate with certainty. As the maritime industry evolves, we know mariners' needs are evolving too. We're continuing to work directly with customers, partners and the wider maritime community to serve their needs now and into the future

www.admiralty.co.uk | Hall B6, Booth 303

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Together in every water: Flexible paths to sustainable propulsion

Efficiency, reliability and operating costs have always been key considerations in marine propulsion. Today, these requirements are increasingly complemented by the need to reduce emissions and improve overall sustainability. For shipbuilders, designers and operators, the challenge is finding the right balance between these interconnected objectives.

With its "Together in Every Water" strategy, ZF helps navigating this task. Recognizing that operational requirements vary considerably across applications, the company continues to expand its portfolio that combines conventional driveline expertise with electrification, intelligent controls and digital services to support vessel operation throughout the lifecycle.

Choosing the right degree of electrification

Electrification is not an all-or-nothing proposition. Depending on vessel size, operating patterns and power requirements, hybrid and fully electric concepts each offer distinct advantages.

For many commercial vessels, hybrid propulsion combines electric operation with the flexibility and performance of conventional drivelines. To support these applications, ZF has expanded its hybrid portfolio with the new ZF 9200



ZF 9200 A/V PTI transmission



ZF 3360 ENC transmission

A/V PTI transmission. Available in both down-angle and V-drive configurations, it is designed for main drive powers of up to 3,903 kW. Its integrated power take-in (PTI) accommodates electric motors with outputs of up to 700 kW, while a wide range of transmission ratios enables adaptation to different applications.

Meanwhile, fully electric propulsion concepts continue to gain momentum in vessels with predictable routes and suitable charging infrastructure. To support these requirements, ZF offers its ENC (electric non-clutchable) transmission series, developed specifically for purely electric vessels. By eliminating the clutch, reducing oil volume and minimizing internal losses, the design improves efficiency while reducing weight by up to 10% and enhancing NVH behavior. Available across the ZF marine transmission portfolio and covering power ranges from 650 kW to 3,900 kW, the ENC family offers an efficient solution for ferries, river cruise vessels and other battery-electric applications.

Electrification across the propulsion system

The choice between hybrid and electric operation does not end at the transmission. Increasingly, shipowners are evaluating complete propulsion systems and

looking for solutions that accommodate different levels of electrification within a common technological framework.

This philosophy is reflected in the new ZF AT 110, the largest azimuth thruster developed by ZF to date. Designed for input powers of up to 2,944 kW and bollard pull values of up to 100 tons, the unit addresses demanding applications such as tugboats and offshore support vessels. Alongside conventional versions, the AT 110 Z-drive can be equipped with a PTI solution delivering up to 770 kW of electric power for hybrid propulsion. For fully electric applications, the AT-L configuration extends the same platform philosophy into battery-electric vessel designs.



ZF AT 110 azimuth thruster

Efficiency beyond hardware

As propulsion systems become more sophisticated, achieving efficiency increasingly depends on intelligent control and transparent operating data.

ZF's AutoTroll 2 improves propeller-speed control during low-speed maneuvering and dynamic positioning operations through a closed-loop con-



trol architecture. Operators can choose between five different shift characteristics, while CAN-based communication simplifies integration and provides additional diagnostic and operational data.

Complementing this, ZF's condition monitoring solution, currently undergoing field testing, continuously records propulsion parameters such as speed, temperature, pressure and operating modes and combines them with cloud-based analytics. The resulting insights support condition-based maintenance strategies that can reduce unplanned downtime, improve availability and optimize lifecycle costs.

A portfolio for every water

The future of marine propulsion will not be defined by a single route to sustainability. Instead, success will depend on

selecting the right combination of technologies for each vessel.

With hybrid transmissions such as the ZF 9200 A/V PTI, dedicated electric solutions such as the ENC series, flexible propulsion platforms including the AT 110 and intelligent technologies such as AutoTroll 2 and condition monitor-

ing, ZF continues to expand the options available to shipbuilders and vessel operators. This integrated approach reflects the idea behind "Together in every water": delivering the right propulsion solution for every application, every environment and every stage of the maritime transition.

About ZF

ZF is a global technology company supplying advanced mobility products and systems for passenger cars, commercial vehicles and industrial technology. Within its division Industrial Technology, ZF Marine is a global leader in propulsion solutions for commercial, leisure and governmental vessels, covering a power range from 10 to 12,000 kilowatts. The portfolio spans hybrid, electric and conventional transmissions and thrusters as well as control systems engineered for demanding maritime environments and adaptable to individual vessel requirements. Building on decades of marine expertise, customer-specific system solutions, and global lifecycle support, ZF is a trusted long-term partner delivering performance, ease of operation, and peace of mind at sea.

www.zf.com/marine | Hall A3 Booth 219

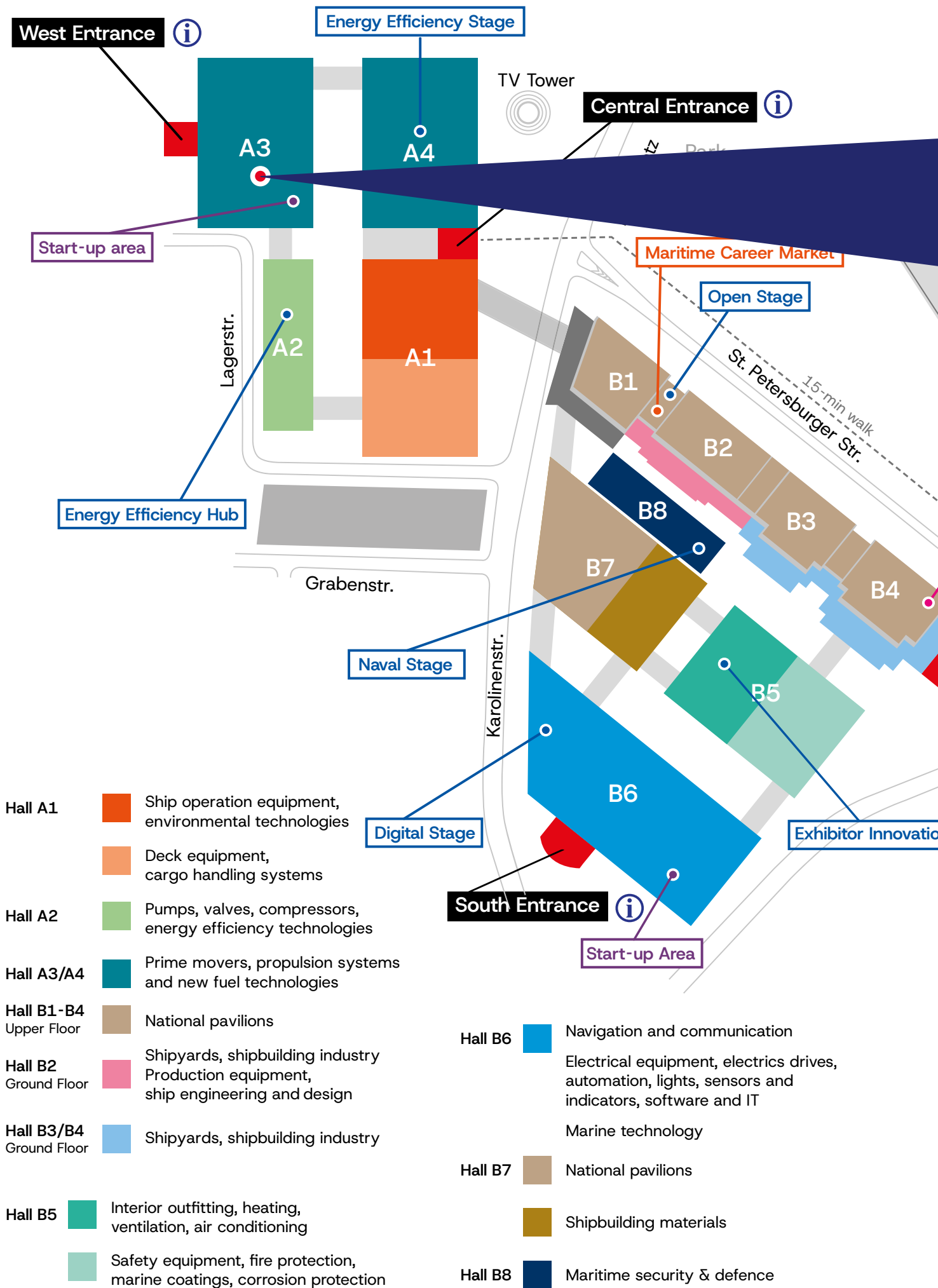
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Together in Every Water

ZF Marine is a global leader in integrated propulsion and control systems for commercial, leisure and governmental vessels covering a power range from 10 to 12,000 kilowatts. Backed by global service and deep industry expertise, ZF Marine is a trusted long-term partner at sea.





Hall A3 | booth 309

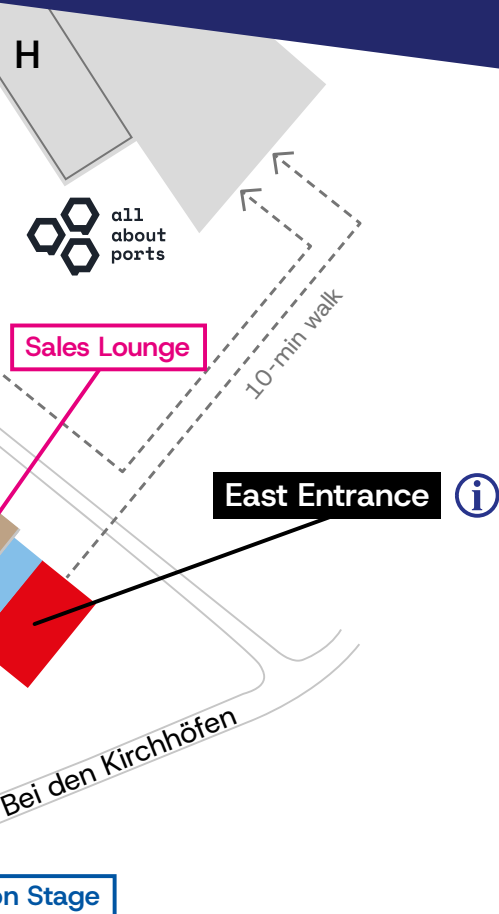


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Don't let just anyone take the helm

On 8 July 2026 the Bundestag's budget committee released the funds for four MEKO® A-200 DEU frigates, with an option up to four more. The rudder and steering gear systems for these ships are to come from Bremen. LOEWE MARINE has been engineering manoeuvrability for the MEKO® family for years, and its reference list is now in the water



© LOEWE MARINE / TKMS

"Al Qadeer" is a MEKO 200-class frigate for the Egyptian Navy

Ask where a surface combatant's fighting performance is decided and the answer will run through sensors, effectors, propulsion and signature management. The rudder rarely comes up. That is an oversight. Tight turning circles at speed, course-keeping in a seaway, quiet running when quiet running matters — all of it passes through the manoeuvring system. It is not a fitting bolted on at the end of the build. It is a capability, and it can be optimised or wasted.

A programme in a hurry

The German Navy's new anti-submarine frigates arrive under exceptional time pressure. After the F126 programme was discontinued at the end of June 2026, the Ministry of Defence turned to a market-available design: the MEKO® A-200 DEU from TKMS, 121 m long, approximately 16.4 m in the beam and 3,950 tons displacement. Four ships have been called off firmly at around €6.3 billion. The first is to reach the fleet by December 2029, and one roughly every nine months thereafter.

Schedules like that are won or lost in the supply chain, which is why TKMS secured capacity at its subcontractors under a pre-contract signed in February 2026, months before the main approval. LOEWE MARINE is set to continue its MEKO® work

into the German programme — not as a newcomer to the platform, but as the firm that has already done it.

Eight rudders, four MEKO® A-200 frigates

Some two years ago, TKMS commissioned the Bremen team to design and build four pairs of full-spade rudder systems with large rudder trunk sections for four MEKO® A-200 frigates built in Germany for a foreign navy. Eight rudders, four ships, delivered to specification. "The whole team at LOEWE MARINE are delighted to have completed this order to TKMS's total satisfaction," says founder and naval architect Carsten Löhmer. "And we are doubly delighted to be continuing our successful cooperation with TKMS."

Proven in service with the Brazilian Navy

That cooperation continued with a follow-up order from Águas Azuis, the joint-venture led by TKMS whose members also include Embraer Defense & Security and Atech: eight special full-spade rudder systems, complete with eight differential-cylinder steering systems, for the four frigates of the Brazilian Navy's

Tamandaré Class Frigate (PFCT) programme — a Brazilian adaptation of the MEKO® A-100 design. The ships measure 107.2 m by 15.95 m and displace 3,455 tons. The design objective was stated plainly at the outset: maximum energy efficiency and signature optimisation under naval operating conditions.

That objective is no longer a projection. The lead ship, F Tamandaré (F200), was commissioned on 24 April 2026 and is in operational service. The frigate “Jerônimo de Albuquerque” (F201), the second ship of this class, began sea trials in August. The third of class, F Cunha Moreira (F202), was launched that June and construction of the fourth frigate has also already begun, marked by the keel-laying ceremony held on 13 August.

All four are due in service by 2029, and a memorandum of understanding signed in April 2026 paves the way for discussions on a second batch of four.

“It is another opportunity for us to demonstrate our expertise and passion for manoeuvring systems,” Löhmer says. “We would like to thank TKMS and the team at Águas Azuis for the continued confidence they have shown in us.”

What optimisation is actually for

NAVY ES/MS-Opt is not a catalogue item with a naval sticker on it. The optimisation is done against the operating profile of the vessel it is destined for, and it is engineered to deliver six things at once.

Installation and maintenance are simplified, which shortens yard time on the build and again at every docking, and OPEX falls accordingly. Manoeuvrability in operational use increases — the metric that decides whether a ship can hold station, evade or close as the situation requires. Acoustic and vibration signature is reduced, because a rudder sitting in disturbed flow is an emitter as well as a control surface, and in the anti-submarine role that matters as much as anything on the mast. Service life and redundancy increase, which is a survivability argument rather than a maintenance one. And the sum of those effects raises combat rating and performance.

These six are not independent variables. A profile chosen for hydrodynamic efficiency is also, if the design work is done properly, the profile that runs quieter and lasts longer. Getting all six at once is the engineering problem LOEWE MARINE exists to solve.

Bespoke, not adapted

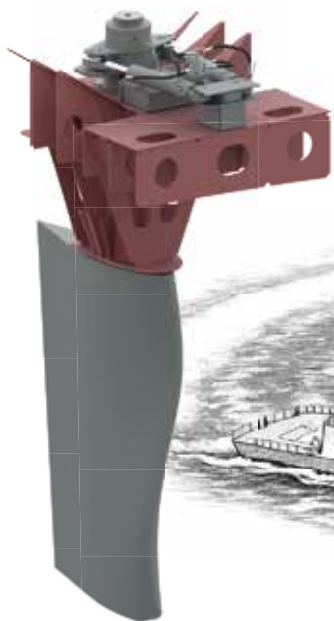
Naval programmes are unforgiving of suppliers who treat a warship as a merchant vessel with different paint. Loads are higher, signature requirements are absolute, redundancy is contractual. LOEWE MARINE’s answer is a small, highly qualified team working to a bespoke brief from the outset, backed by a service centre in Hamburg for the decades that follow handover. “The entire team shares my passion for bespoke engineering, and I am immensely proud of them,” Löhmer says. “We choose our people very carefully — and so do our partners.”

You only get the best customised manoeuvrability technology for naval units if you don’t let just anyone take the helm.

About LOEWE MARINE

LOEWE MARINE GmbH & Co. KG was founded in 2011 by naval architect Carsten Löhmer. Headquartered in Bremen with a service centre in Hamburg, the company is an established shipbuilding supplier and a provider of ship-related services worldwide. Its marine systems and green shipping portfolio covers the design, production and installation of highly efficient full-spade rudder systems of all profile types and sizes for all vessel types, the supply, maintenance and repair of steering gears of all types, and the production of wake equalizing ducts. The LOEWE BIOSECURITY division, established in 2019, adds maritime health protection and cleaning systems.

www.loewe-marine.com | Hall B3 EG, Booth 204



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SMM
HALL B3.204

"We must work together to find answers"

Rolls-Royce Power Systems is expanding its marine portfolio with integrated bridge-to-propeller solutions, variable-speed propulsion systems and new emission-control technologies. Lukas Köhler outlines market trends, future fuels and his priorities as Senior Vice President Global Marine

You recently took over the role of Senior Vice President Global Marine at Rolls-Royce Power Systems. Which segments of the maritime industry do you serve, and what products and solutions are currently included in your portfolio?

Lukas Köhler: Since August, I have had the great pleasure of leading the global marine and mining business at Rolls-Royce Power Systems. In the commercial marine sector, we supply yachts, ferries, offshore support vessels, and tugs with state-of-the-art mtu propulsion and automation systems – and offer our customers comprehensive support throughout the entire lifecycle of their vessels.

We are particularly proud of our strong position in the ferry

market: Approximately 860 high-speed ferries worldwide are powered by mtu propulsion systems – no other engine brand has such a strong presence. We are the market leader for yachts over 40 meters in length.

At Rolls-Royce Power Systems, we stand for technological openness, customized customer solutions, and 100 years of maritime experience. As a company within the Rolls-Royce Group, we actively evaluate, research, and invest in future technologies to offer our customers the right propulsion technology for their vessels – today and in the future – and support them with the expertise of our engineers and service team throughout the entire service life of their vessels.

What are your latest product highlights?

Köhler: One of this year's highlights is the presentation of our variable-speed propulsion units based on the mtu 2000 series as a standardized solution for workboats as well. These units reduce fuel consumption and CO₂ emissions by up to 15% in the partial-load range and lower noise and vibration levels. In combination with our internal combustion engines, which can be powered by sustainable fuels, we enable more efficient, flexible, and environmentally friendly ship operations. The offering is complemented by a new SCR exhaust aftertreatment system for the mtu Series 2000 engines, which meets the strictest IMO Tier III emission standards and paves the way for sustainable shipping.

For yachts and, now, also for workboats, we are introducing our Bridge-to-Propeller solutions. With these, we aim to view ship operations as a holistic system – from the controls on the bridge to the propulsion in the water. To this end, the



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Lukas Köhler, Senior Vice President Global Marine at Rolls-Royce Power Systems

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company combines its expertise in propulsion systems, energy management, and automation into integrated solutions that improve efficiency, safety, and cost-effectiveness.

With our mtu NautIQ Bridge, we offer a fully integrated product for the intuitive control of the entire vessel, featuring coordinated hardware and software. This integrated solution connects the bridge, energy management, and propulsion into a seamless system - with clear benefits for operation, oversight, and efficiency.

You have been with Rolls-Royce Power Systems since 2018 and have held a number of different positions during that time. Looking back, how have the maritime industry and Rolls-Royce Power Systems evolved in your view? Which milestones or market trends have been particularly significant?

Köhler: The shipbuilding industry is experiencing significant expansion of government fleets – and we are ideally positioned to provide solutions for frigates, SAR vessels, and patrol boats. The global shipbuilding market is currently dominated by Asia, particularly China. We are currently seeing an upswing in the large yacht sector.

With regard to sustainability, there has been a great deal of enthusiasm since 2018, which is now undergoing a reality check. We have developed new technologies for sustainable fuels, such as methanol engines. However, these fuels are not yet sufficiently available or economically viable for our customers.

What goals have you set yourself in your new role? Which topics are currently at the top of your agenda, and where do you see the greatest opportunities for further development?

Köhler: My goal is to continue enabling our customers to benefit from our technological leadership – with advanced products and solutions that enable efficient, safe, and reliable ship operations. Our bridge-to-propeller solutions are particularly important, as they offer the advantage of a coordinated, single-source solution and reduce design and integration efforts. The internal combustion engine remains at the heart of our portfolio, and we are continuing to expand it



© Rolls-Royce Power Systems

Rolls-Royce 16V2000 variable-speed generator set

so that we will remain the preferred propulsion supplier for ferries, tugs, offshore support vessels, and yachts 20 years from now.

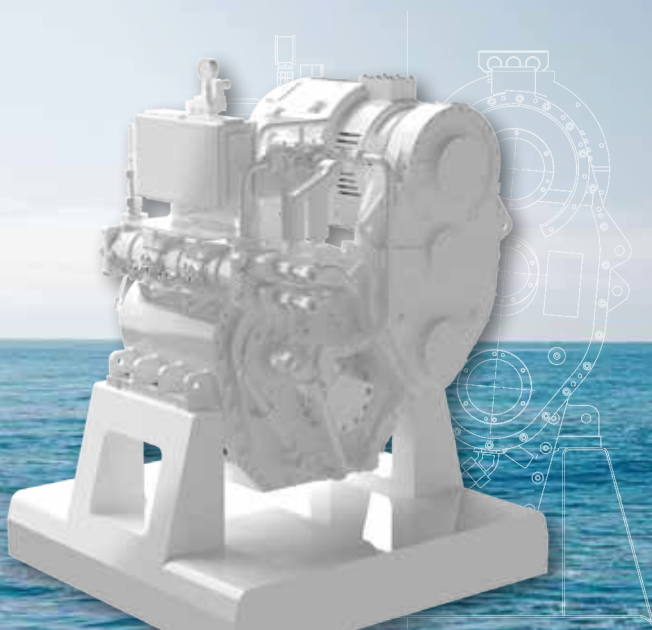
What do you expect to be the biggest challenge in your new position? More broadly, which challenges do you believe will shape the marine business over the coming years?

Köhler: The biggest challenge is being able to offer the right solutions at the right time – from fuel flexibility and cybersecurity to efficiency and sustainability. The entire industry faces the task of making shipping more sustainable. We must work together to find answers to questions such as how to create a comprehensive infrastructure for alternative fuels and when the relevant legal requirements will be put in place.

Finally, on a more personal note: what are you most looking forward to in your new role? Is there a particular aspect of your new role that you are especially looking forward to?

Köhler: I'm especially looking forward to meeting our customers in person around the world and seeing how our products perform on their ships. The art of designing and building a ship fascinates me – and I'm eager to take a ride on the odd ship or two.

Hall A3 | Booth 309



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Flexibility over fuel

Which fuel will power the ships of tomorrow? As the maritime industry navigates an uncertain transition, flexibility is becoming a key design principle. Antonios Trakakis, Energy Transition Solutions Technical Director at RINA, shares why adaptable ship designs may prove to be shipping's greatest competitive advantage

For much of the past decade, the maritime industry's decarbonisation debate has centred on one question: which fuel will power the ships of tomorrow? LNG, methanol, ammonia, hydrogen and a growing range of alternative energy sources have all emerged as potential contenders, yet there is still no clear consensus on which pathway will prevail. As a result, shipowners are making multi-million-dollar investment decisions against a backdrop of technological uncertainty, evolving regulation and shifting commercial priorities.

The challenge extends far beyond fuel selection. Vessels ordered today are likely to remain in service well into the 2050s, operating through successive rounds of regulatory change, technological innovation and changing market expectations.

Decisions made during the design stage must therefore continue to deliver value long after today's assumptions have changed. Rather than attempting to predict which fuel will dominate, shipowners increasingly need vessels capable of adapting to multiple possible futures. Preparing for uncertainty,

rather than trying to eliminate it, is becoming one of the defining challenges of modern ship design.

From choosing fuels to managing risk

This philosophy underpins RINA's development of Mermaid, a propulsion concept created not to champion a particular fuel, but to help shipowners reduce investment risk while improving operational efficiency. Rather than setting out to develop a new propulsion technology, RINA began with a more fundamental engineering question: how can ships ordered today remain efficient, commercially viable and adaptable throughout their operational lives? Mermaid is the outcome of that thinking rather than its starting point.

The concept reconsiders the role of the vessel's highly efficient two-stroke main engine by extending its function beyond propulsion to become the primary source of onboard electrical power. Through the integration of a shaft generator, propeller shaft clutch and



© RINA

Antonios Trakakis, Energy Transition Solutions Technical Director at RINA

battery energy storage, the main engine continues generating electricity after the propeller is disengaged in port, charging batteries that subsequently supply onboard electrical demand. This allows the engine to operate more efficiently,



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Hall A3 | Stand 304



reducing fuel consumption, emissions and operating costs without committing owners to a specific fuel pathway.

Mermaid also reflects another important shift across the maritime sector. As slow steaming becomes increasingly common, many commercial vessels now spend much of their operating lives sailing below the speeds for which they were originally designed. By combining auxiliary engines with battery energy storage in a hybrid propulsion scheme, the concept enables propulsion power to be better matched to actual operating conditions while maintaining safety and operational flexibility. It also creates opportunities to optimise engine sizing, reducing unnecessary installed power while preserving performance whenever additional power is required.

Engineering for multiple futures

The benefits extend beyond efficiency alone. Greater electrification improves operational resilience by maintaining electrical availability during critical situations, reducing the risk of blackout events (both in propulsion and electric) while enhancing vessel safety. As on-board systems become increasingly dependent on reliable electrical power, resilience is becoming an essential design consideration alongside emissions reduction and fuel efficiency.

The commercial case is equally compelling. RINA's analysis indicates that



© RINA

As a classification society, RINA examined how operational efficiency can be improved while reducing investment risk

Mermaid can reduce fuel consumption by more than 1,000 tonnes annually in certain applications while lowering future emissions-related compliance costs. Because the concept is fuel agnostic, shipowners retain the flexibility to respond as regulations, fuel availability and propulsion technologies continue to evolve, avoiding the risks associated with committing too early to a single decarbonisation pathway.

Perhaps the most important lesson emerging from Mermaid, however, is not technological but strategic. For many years, the industry has searched for the fuel that will define the future of shipping. Yet the pace of change suggests that certainty may remain elusive for some time. Rather than optimising vessels for one predicted outcome, there is increasing value in designing ships capable of adapting to different scenarios as they emerge. Such an approach not only

protects long-term asset value but also gives owners greater confidence that investments made today will remain relevant throughout a vessel's service life.

Engineering has always been about balancing technical performance with commercial reality, and nowhere is that balance more important than in shipping's transition towards lower-carbon operations. The solutions that create lasting value will be those that deliver measurable benefits today while preserving the flexibility to respond to tomorrow's challenges. As the industry continues its transition, success is unlikely to depend on accurately predicting which fuel will emerge as the long-term winner. Instead, it will belong to those who design ships that remain efficient, commercially resilient and ready to adapt, whatever direction the journey takes.

Hall B4.EG | Booth 310



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GSL presents production network in Hamburg



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GSL combines specialised shipbuilding expertise within a single integrated production network.

On 2 and 3 September, GSL Group will present in Hamburg a production model that has been bringing together specialised expertise for the shipbuilding, offshore and energy sectors for the past 35 years. With a network of more than 100 small and medium-sized enterprises, 1,026 employees and over one million available working hours, the consortium positions itself as a single point of contact for the European shipbuilding industry. The presentation will take place while the international maritime community gathers in Hamburg for SMM.

The focus of the event will be GSL's technical expertise in the production of thruster tunnels – highly complex structural components designed to accommodate transverse thrusters. According to the company, manufacturing these structures is among the most demanding and specialised activities within the maritime supply chain.

The production process combines advanced design and manufacturing methods. These include parametric 3D CAD modelling for complex geometries, finite element analyses (FEA) to simulate loads, vibration and deformation, as well as computational fluid dynamics (CFD) analyses to optimise the tunnel's internal geometry.

For heavy steel construction, the network develops large-format metal moulds in-house. These ensure high rigidity, millimetre-precise tolerances and resistance to thermal deformation. According to GSL, the mould is the core element of the production process, defining the tunnel geometry and enabling the manufacture of components that meet hydrodynamic design requirements.

Steel plates made from AH36 and DH36 shipbuilding steel are formed using high-precision CNC bending machines. Assembly is carried out using MIG/MAG welding, automated rotator systems and non-destructive testing methods, including ultrasonic, radiographic and dye penetrant testing, in accordance with the requirements of the major international classification societies.

In addition to steel construction, GSL will present its expertise in mechanical engineering across the entire propulsion train. The portfolio includes rudder blades and rudder stocks, inspected using the Prussian Blue test, complete shaftlines machined to micrometre precision, waterjet propulsion components such as jetavators and stator bowls, as well as internal components for controllable pitch propellers, including actuators and blade carriers.

According to the company, these applications require a high level of precision, geometric continuity and the ability to integrate mechanical engineering, hydrodynamics and classification requirements.

GSL coordinates these capabilities within a single production process, offering shipyards one point of contact for the delivery of complex projects with certified quality, industrial repeatability and full integration into the maritime supply chain. For further details, scan the QR code.




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Anschütz unveils new gyrocompass

Anschütz will present a new-generation gyrocompass at SMM, introducing the Standard 100 MF to the market for the first time. The new system applies proven vibrating gyro principles derived from established gyrocompass systems based on the Hemispherical Resonator Gyroscope (HRG), such as the Standard 30 MF.

The Standard 100 MF brings the benefits of maintenance-free Coriolis Vibratory Gyro (CVG) technology to a broader commercial fleet. It is designed for robust heading performance in daily operation, enabling long-term stability, durability and efficient life-cycle operation without maintenance.

The Standard 100 MF can be seamlessly integrated into new-build and retrofit projects. It uses the same CAN bus as the Standard 22 NX and the Standard 30 MF, allowing integration into existing gyrocompass systems with minimal installation effort. Standardised interfaces and straightforward commissioning ensure efficient deployment within existing bridge environments.

Built for the operational requirements of the commercial fleet, the Standard 100 MF provides a reliable, maintenance-free heading solution for the majority of vessels worldwide. In everyday operation, it combines simple integration,



The Standard 100 MF

dependable performance and efficient lifecycle costs, backed by the global Anschütz service network.

The new system will be presented live at the Anschütz stand during SMM. Market introduction is planned for 2027. Standard

Hall B6 | Booth 304

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Start-ups take the stage at SMM

From artificial intelligence and autonomous systems to robotics and sustainable technologies: 19 young companies will present their ideas at SMM 2026

Once again, maritime start-ups will have a prominent place at SMM. From 1 to 4 September, 19 young companies will present their technologies and business ideas to an international audience in Hamburg.

A total of 19 companies from Germany, other European countries, Canada and Asia will take part in Start-ups@SMM. Their technologies cover a broad range of fields, including artificial intelligence (AI), robotics, autonomous systems, digital analysis tools, energy efficiency and sustainability. Several participants will present their developments to an international audience for the first time.

„Many of the technologies that will shape the maritime industry in the coming years are currently being developed by young companies,” says Claus Ulrich Selbach, Vice President Exhibitions Maritime & Energy at Hamburg Messe und Congress. Start-ups@SMM is intended to make this innovative potential visible and provide developers with an international platform.

The participating companies will exhibit on two joint stands in halls A3 and B6. A dedicated start-up route will guide visitors to the exhibition areas. Young technology companies will also be represented in the Naval Hall in hall B8,



In 2024, the »SMM Maritime Start-up Award« went to Ship Projects from Lithuania

which focuses on maritime security and defence.

The highlight of the programme will be the „Maritime Start-up Day & Night“ on Wednesday, 2nd September. The event is being organised jointly with Maritime Start-ups Deutschland.

During the day, the participating companies will present their technologies and business models to the SMM audience in a series of short pitches. An expert jury will assess the presentations and select the winner of the „Best Maritime Start-up 2026“ award.

The award will be presented during the SMM Maritime Start-up Night aboard the »Karoline«, directly next to the exhibition grounds. The evening event will offer start-

ups, representatives of the maritime industry, investors and media professionals an opportunity to meet and exchange ideas over music, food and drinks.

Beyond the competition, the programme is intended to help young companies establish contacts with potential customers, partners and investors. For trade fair visitors, it offers an overview of technologies and business models that could influence the maritime industry in the years ahead.

The winning company will receive a free stand at SMM 2028 as well as a „HANSA Media Booster Package“ worth €10,000. The pitch event and the evening programme will also give all participating start-ups an opportunity to present their work and expand their industry networks.

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For decades, customers have trusted Anschütz for reliable navigation and confident decisions at sea. At SMM, we showcase next-generation navigation sensors and systems, including the SYNAPSIS Integrated Navigation System, prepared for S-100.



Windtracx flies a fully autonomous, powered rigid wing above the vessel — more than a kite, not a deck sail — at ~300 m altitude, where wind is stronger, steadier and more consistent than at sea level. A figure-8 flight path drives high apparent wind speed, generating far more traction than fixed sails, and the system excels in tailwinds, exactly where deck-based solutions lose effi-

ciency. Full powered control through take-off, flight and landing — with total redundancy in propulsion and 9 control surfaces — removes the failure risks of passive soft kites. An onboard weather station also feeds real-time, altitude-level data into voyage optimisation, boosting fuel savings beyond what satellite forecasts alone can achieve.



MarinaChain delivers the definitive »Decision Layer for Maritime Operations & Finance,« transforming conservative shipping markets through precision AI technology. Moving beyond standard regulatory compliance software, we integrate real-time vessel

tracking and contract data to deliver a commercial intelligence platform that optimizes asset valuations and specific route profitability (TCE).

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Elnav.AI develops maritime human-performance tools for safer watchkeeping and operational resilience.

„Aware Mate“ is an on-board, human-in-the-loop support layer that provides local, privacy-bounded prompts when

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Golden Owl is an AI-powered intelligence platform that transforms open-source data into actionable business insights. Using specialised AI agents, the company supports organisations with

research, risk analysis, compliance, due diligence and strategic decision-making. Its technology helps identify connections, assess threats and navigate complex global information environments.



Kite Dynamics AG, based in Stuttgart, develops innovative systems for generating energy from high-altitude winds using kites. For the maritime sector, we develop innovative soft kite propulsion systems to reduce fuel consumption and CO₂ emissions. Our technology generates high load

traction forces, for both primary and auxiliary propulsion reducing the load on the ship's engine in suitable wind conditions. The system is also capable of generating electrical energy for multiple applications including our Wind Energy ship to produce storable energy on the open ocean.

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Bluefins develops WaveDrive, a nature-inspired propulsion platform for commercial shipping. Installed at the stern of vessels, it converts vessel motion into useful thrust to reduce fuel consumption and emissions. Designed for retrofit and newbuild applications across bulk

carriers, tankers and containerships, WaveDrive has already completed successful sea trials. Bluefins is therefore building strategic partnerships with shipowners, propulsion-system manufacturers and investors to accelerate commercial deployment.



Baltic Water GmbH is a Germany-based maritime water treatment company specialising in retrofit, upgrade, and new-build solutions. Founded in 2022, the company supports the ma-

ritime industry with consulting, planning, design, service, spare parts, and consumables, with a focus on efficient reverse osmosis and drinking water treatment systems

BOTIX is committed to making scalable maritime autonomy a reality. Backed by an interdisciplinary team and full-stack R&D capabilities, BOTIX develops integrated solutions for the maritime industry, including situational awareness systems,

autonomous navigation systems, vessel drive-by-wire control systems, and key sensors. By accelerating the real-world deployment of maritime autonomy, BOTIX enables safer, smarter, and more efficient navigation.



Vesselity Maritime Analytics helps shipowners and managers turn hull condition into measurable business intelligence. By combining ROV inspections, underwater vision AI and operational vessel data, the company

detects biofouling, assesses coating condition and identifies efficiency losses. Its data-driven approach enables smarter maintenance, lower fuel consumption and reduced emissions across existing fleets.

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Agem Robotik develops fully automatic robotic systems for micro-panel manufacturing and welding in shipbuilding. Guided by 3D production drawings and vision-based image processing, the system autonomously lifts and positions stiffeners (bulb/Hol-

land profiles) weighing up to 100 kg onto main steel plates of up to 3,000 × 12,000 mm, then MIG-welds them with high precision. Integrated infeed and outfeed conveyors ensure a continuous, high-throughput workflow for shipyards and steel fabricators.



Nortech Ai automates IoT data infrastructure across maritime and heavy-asset industries. Our edge technology features automated protocol discovery to connect any asset, end data silos, and break vendor data lock-in. By converting raw equipment signals into clean, stan-

dardized time-series insights, Nortech Ai's data collection solution fast-tracks digitalization and makes your company AI-ready. We empower operators and system integrators to optimize fuel efficiency, lower emissions, and scale predictive maintenance effortlessly.

Conception FG is a Canada-based engineering company providing automation and networking solutions for industrial and maritime applications. Its expertise includes design, commis-

sioning, electrical engineering, project management, motor repair and parts supply, supporting clients with reliable technical solutions for complex operations.



Varuna Marine Services delivers innovative maritime solutions for compliance, sustainability, and operational performance. From emissions compliance

and digitalisation to inspections and cyber security, the company supports maritime businesses with practical expertise and a global perspective.

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Turning lubrication into a fuel efficiency solution

As the maritime industry intensifies its efforts to improve energy efficiency and reduce emissions, attention is increasingly turning to solutions that can deliver measurable results without requiring major capital investment. Advanced lubricant technology is emerging as one such opportunity.

Lubmarine, the marine lubricants division of TotalEnergies, has developed Aurelia FE, a fuel economy trunk piston engine oil designed to help operators reduce fuel consumption while maintaining engine reliability and cleanliness. Aurelia FE is the result of extensive research into friction management, engine protection and lubricant performance.

While lubrication has traditionally been viewed as a maintenance necessity, modern formulations can play a more active role in overall vessel efficiency. By optimising frictional behaviour within the engine, Aurelia FE contributes directly to reducing energy losses, helping operators improve fuel performance across their fleets.

Under standardised MARPOL E3 engine cycle test conditions, Aurelia FE demonstrated weighted average fuel savings of 1.5%, while field evaluations have shown that higher gains may be achieved depending on engine type, operating profile and load conditions. The methodology used to assess fuel economy performance has been validated by

Bureau Veritas, providing an independent framework for measurement.

Beyond fuel savings, Aurelia FE has been formulated to deliver strong detergency, high wear protection and slower lubricant ageing compared with conventional trunk piston engine oils. These characteristics help maintain engine cleanliness and operational consistency over time, supporting efficient performance throughout the oil drain interval.

For operators seeking near-term efficiency gains, Aurelia FE is a drop-in solution that requires no technical modifications to the vessel, equipment upgrades or off-hire periods. This allows shipowners to capture potential efficiency benefits through a routine lubricant change, making implementation straightforward across existing fleets.

As shipping continues to pursue practical pathways towards decarbonisation, solutions that combine operational simplicity with measurable efficiency gains are becoming increasingly relevant. Aurelia FE demonstrates how innovation in lubricant formulation can contribute to fuel savings and related emissions reductions as well as improved operational performance, highlighting the evolving role of lubricants in maritime efficiency.

Lubmarine will be at SMM 2026 in Hall A3, stand A3.304, where its marine lubricant engineers will present Aurelia FE in daily presentations.



© Lubmarine

Aurelia FE, Lubmarine's fuel economy trunk piston engine oil, will be presented at SMM

On Tuesday, 1 September, at 14:45, Stuart Fuller, Market Liaison & Product Manager (Marine Lubricants), will give a keynote presentation at the Exhibitors Innovation Stage entitled "Performance that Pays Off: Fuel Savings with Aurelia Fuel Economy TPEO".

Hall A3 | Booth 304

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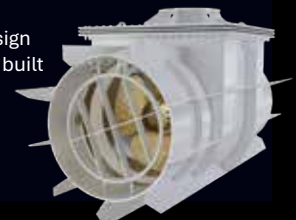
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NACOS Marine focuses on fleet lifecycle



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NACOS Marine is expanding its lifecycle and retrofit support for existing fleets

With more than 9,000 navigation, automation and dynamic positioning products in service across some 8,000 vessels worldwide, NACOS Marine is placing a strong focus in 2026 on supporting its existing installed base.

The large number of systems already in operation creates specific engineering and service requirements. Equipment installed a decade or more ago needs to remain reliable and serviceable even as individual components reach the end of their lifecycle. At the

same time, existing systems increasingly need to be integrated with newer equipment as shipowners modernise individual systems rather than replacing an entire bridge installation at once.

To address these requirements, NACOS has developed a dedicated lifecycle and retrofit capability for its installed base. This includes spare parts availability, field services and structured upgrade options that allow shipowners to modernise navigation, automation or dynamic positioning systems in stages. The company's

modular system architecture enables individual components to be upgraded independently without requiring a complete system replacement, thereby limiting costs and vessel downtime.

This approach is becoming increasingly relevant as shipowners balance investment constraints with changing regulatory and operational requirements. Retrofitting can enable existing bridge systems to meet new demands, including updated positioning reference systems and enhanced automation, while retaining equipment that remains suitable for continued operation.

During 2026, NACOS Marine is also expanding its service capabilities through additional regional hubs. According to the company, this is intended to improve the availability of spare parts and shorten field-service response times beyond its established markets.

For shipyards and shipowners, lifecycle support can therefore extend well beyond the initial installation and hand-over of a system. Through maintenance and targeted upgrades, existing equipment can remain in operation while being adapted to changing technical and operational requirements.

Hall B6 | Booth 433



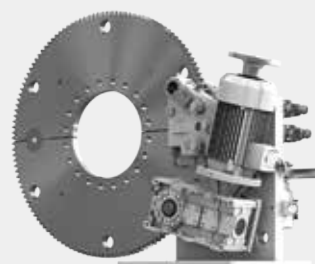
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A4
233

DNV introduces new tool for smarter steel coil loading



© DNV

DNV will present the latest version of its Steel Load Planner (SLP V2.0) at SMM 2026

At SMM 2026, DNV will showcase a range of digital solutions designed to support safe, efficient and compliant vessel operations. Among the highlights will be Steel Load Planner (SLP V2.0), the latest version of the company's self-service application for producing rule-compliant loading plans for steel coil cargoes. The tool forms part of DNV's growing portfolio of digital services aimed at supporting operational efficiency and decision-making on board.

Building on two years of operational use across more than 100 vessels, SLP V2.0 automates planning work that previously relied on manual input and judgement. According to DNV, built-in AI guides users in producing optimised loading plans, including a structural assessment, in less than five minutes.

Planners enter the vessel particulars together with the dimensions of the steel coils. SLP V2.0 identifies stronger and weaker areas of the cargo hold structure before optimising dunnage arrangement and coil placement. The software also supports mixed coil stowage, non-standard tier arrangements and improved utilisation of cargo hold space by assessing higher tiers against the sloped hopper plate.

A dashboard provides an overview of the cargo and loading plan, displaying coil distribution throughout the cargo hold together with key shipment data, including the number of coils, total cargo weight and centres of gravity for transfer to the onboard loading computer. The same dashboard can also be printed as a report for documentation and handover.

Further refinements include reduced dynamic accelerations for short voyages in calmer seas and the consideration of documented coating condition and corrosion, enabling, according to DNV, the utilisation of up to 50% of the available corrosion allowance where permitted.

Version 2.0 also extends the application beyond bulk carriers. For the first time, it supports steel coil stowage on general cargo and multi-purpose vessels, bringing the same automated structural assessment to a wider range of ship types.

Visitors to the DNV booth can see Steel Load Planner V2.0 in operation and discuss steel coil loading scenarios with the company's experts.

Hall B4, EG | Booth 221

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“Connected to Perform” at SMM 2026

The shipping industry is changing faster than ever before, not least due to the pervasive digitalisation. The days when a ship's crew was cut off from the outside world for months on end are long gone. The modern fleet is connected; never before has so much data been available as it is today. This brings with it numerous new opportunities, such as precise fleet management, predictive maintenance and route optimisation. Digital solutions help to lower fuel consumption and reduce emissions. And, last but not least, the Internet enables crews to speak to their families more often – a factor that should not be underestimated when it comes to well-being on board.

However, these technologies have also brought new responsibilities into focus. Due to increasing connectivity, cybersecurity plays a greater role in the industry than ever before. How do

shipowners protect themselves against digital threats, and how secure are the communication channels on board?

All of this will be the focus of a joint event organised by HANSA and Inmarsat. Under the title “Connected to Perform: Enabling a Digital, Secure and Human-Centric Fleet”, experts from the maritime world will discuss key aspects of maritime connectivity.

Speakers from Hapag-Lloyd, Anglo-Eastern Germany, Fairplay Towage and Inmarsat will share their experiences and best practices, providing fresh impetus for a digital and secure fleet of the future. The event combines theoretical knowledge with practical application and offers an ideal opportunity to find out about new developments in maritime digitalisation – and to make new contacts during the networking session afterwards.

Agenda

September 2, 2026

11.00 – 15.00 hrs

Kosmos Karoline, Karolinenstraße 45 (beside SMM main entrance), 20357 Hamburg

- 11.00 – 11.30: Welcome by Gert-Jan Panken, GM and Vice President, Inmarsat Maritime
- 11.30 – 12.00: Opening
Keynote: A forward-looking view on maritime digitalisation at a pivotal industry moment
- 12.00 – 13.00: Expert panel discussion, moderated by HANSA
- 13.00 – 13.30: Interactive Q&A
- 13.30 – 15.00: Networking lunch

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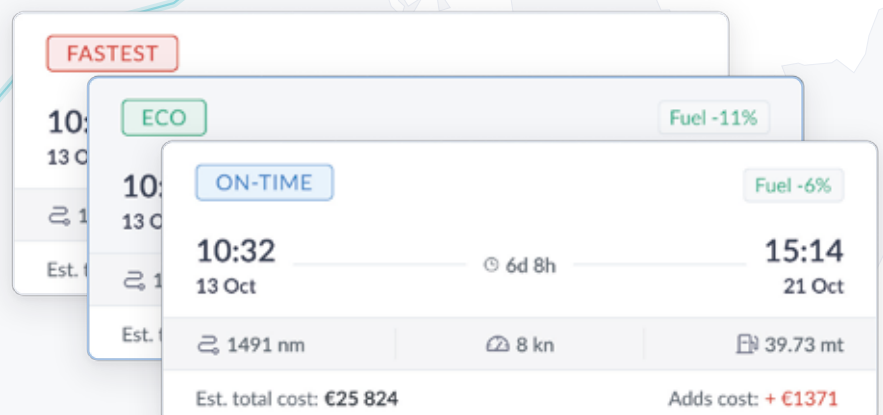
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Compact expert talks at the VDMA stand

The speakers' corner at the joint VDMA and CIMAC stand is set to become a compact forum for maritime expertise, practical insights and direct exchange. Visitors will have the opportunity to attend short expert presentations from VDMA, CIMAC and their member companies.

According to VDMA, the programme will cover topics ranging from digital marketing and vessel electrification to vibrations, alternative fuels and smart integration on board. Presentations will provide insights into the respective topics, while the speakers will be available for individual discussions and questions at the stand. The format is intended to offer visitors an opportunity to discover current technologies, discuss industry challenges and connect with specialists from across the maritime supply chain in an informal setting. In addition, today, 1 September, the panel discussion

"Propulsion of the Future – What Will Power Future Global Trade?" will highlight important developments in the industry. Taking place at the Energy Efficiency Stage in Hall A4 (Stand A2.120) from 14:30 to 15:20, the discussion will focus on future propulsion technologies and energy solutions for shipping.

VDMA's programme is aimed at shipowners, shipbuilders, suppliers, engineers and other maritime professionals, offering opportunities to attend presentations, ask questions and exchange views with speakers and experts at the stand.

On the first day of SMM, the afternoon programme at the VDMA stand will feature two presentations. At 3 pm, VDMA will provide insights into the shipbuilding supply industry with "VDMA – Europe's Largest Association, Marine Equipment and Systems: Our Shipbuilding Suppliers". At 3.20 pm, "Watching to Experience



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– How Interactive 3D Experiences Are Transforming Marketing and Sales" will explore how interactive 3D experiences are changing marketing and sales.

Hall A1 | Booth 520



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Fraunhofer: Smart technology for the oceans of tomorrow



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EyeCaptain, a camera-based assistance system

What does the future of the maritime industry look like – sustainable, digital, and competitive? The Fraunhofer Gesellschaft aims to provide answers at its stand in Hall B6, Booth 230

Under the theme “Smart Production. Smart Ports. Smart Shipping”, five Fraunhofer institutes will present application-oriented solutions for the industry – ranging from intelligent ship navigation and modern astronavigation to innovative production and new manufacturing applications.

With EyeCaptain, Fraunhofer CML is showcasing a camera-based assistance system that integrates 360° cameras and thermal imaging technology with AIS, GPS, radar, and electronic nautical chart data. Traffic situations are analyzed in real time, collision and grounding risks are detected early, and the information is presented to the bridge crew in a clear

and understandable manner. The system supports informed decision-making, particularly in conditions of limited visibility, heavy traffic, or time-critical situations.

In addition, Fraunhofer CML is working on a GNSS-independent positioning system to make navigation more resilient even when satellite signals are disrupted or fail. The core element is a camera-based system for astronomical positioning: A circular array of eight cameras captures the starry sky, while intelligent pattern-matching algorithms identify celestial bodies using a star catalog.

Using an augmented reality application, Fraunhofer IGP – which specializes in production technology for large-scale structures – brings the production environment to life digitally. An interactive tour illustrates key elements of a networked factory and demonstrates possibilities for digital production planning and control. The focus is on a large robot developed specifically for maritime applications – one of the world’s largest electrically powered industrial robots of its kind.

Simulations and digital twins are indispensable for many companies. Because conventional software often fails to adequately model highly dynamic processes, the “Mesh-Free Methods” department at Fraunhofer ITWM has developed MESHFREE, a solution that operates without a rigid computational mesh. In the maritime sector, MESHFREE is particularly well-suited for simulating moving ships and their interaction with waves, as well as for applications such as tank sloshing, spray cleaning, flooding scenarios, or floating bridges for disaster response.

Fraunhofer IWS develops innovative manufacturing and joining technologies for metallic structures and hybrid construction methods across the entire value chain – from process development to industrial implementation. A key focus is on energy- and resource-efficient solutions for steel and aluminum structures in shipbuilding, as well as for offshore installations and maritime energy systems.

Hall B6, Booth 230

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Steute presents switching devices for demanding environments

Salt water in ports, vibrations on board ships, explosion risks on drilling rigs, and corrosive and abrasive bulk materials in handling facilities: the typical environmental conditions found in ship and port technology place high demands on switching devices used for automation and the safety-related monitoring of systems and processes.

For these demanding operating conditions, Steute's Controltec business division has developed an extensive range of heavy-duty switching devices, which will be presented at SMM. The focus will include robust emergency pull-wire switches for safeguarding conveyor systems and extensive hazardous areas – also available in explosion-proof versions – as well as hoist limit switches for ship and port cranes and vibration-resistant sensors. These ensure high reliability and a long service life even when continuously exposed to vibrations caused by ship engines.

A large proportion of the portfolio has DNV approval. In addition, the switching devices feature a corrosion-resistant design and an extended temperature range, reaching as low as -60 °C depending on the series. The position switches widely used in ship and port technology, several series of which Steute will showcase in Hamburg, can be flexibly adapted to the respective application using various actuators. High degrees of protection up to IP66/IP67



RF 99 position switches

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and standardised dimensions in accordance with EN 50041 and EN 50047 are standard features, as is certification for Ex Zones 1 and 21 (gas and dust explosion protection).

At SMM, Steute Controltec will also provide a first preview of a future addition to its product portfolio: the prototype of the new RF 99 series. The wireless position switches have been developed specifically for use in harsh environmental conditions and offer a key advantage: no cables are required

for signal transmission that could fail due to wear or mechanical damage. Instead, the switches use robust and field-proven wireless technology – a concept that Steute has successfully employed for many years.

Combined with a waterproof, corrosion-resistant and impact-resistant plastic enclosure, the RF 99 provides a particularly robust solution for maritime applications.

Hall B6 | Booth 137

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MARITIME BOOKS

Voith Schneider Propeller, An ingenious invention

The Voith Schneider Propeller (VSP) is one of the most significant maritime inventions of the 20th century and will celebrate its 100th anniversary in 2026. Ernst Schneider's innovative propeller design first proved its worth in 1926 during model tests at the Shipbuilding Research Institute in Vienna and set new standards for maneuverability and efficiency.

The book traces the history, the technical fundamentals, and the international success story of the VSP. From the "Torqueo" – the first ship with VSP propulsion – through early Voith water tractors and applications in tugboats, ferries, naval vessels, and specialty shipping, to modern offshore vessels and digital simulation methods, it covers the full spectrum of its development. Available in English and German.

Voith Schneider Propeller. An ingenious invention

Authors: Birgit Jürgens, Dirk Jürgens

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