June 2026

MARITIME REPORTER AND ENGINEERING NEWS

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Part I: Port Security

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Hayato Suga, President & CEO

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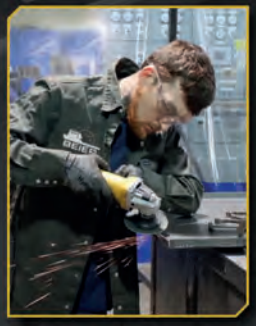

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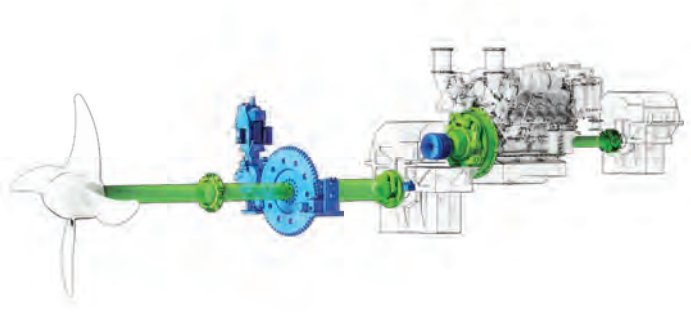

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Corsair, Saronic's 24-foot ASV.
Image courtesy Saronic

On this page
Tailored to for short-sea trade into Sweden's lake system, the AccessMAX tanker type will be built by Ferus Smit.
Image credit: Thun Tankers

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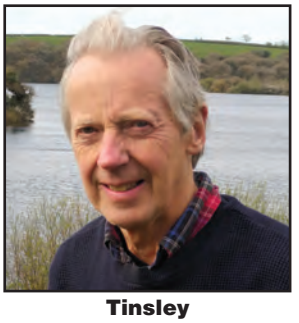

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MARITIME REPORTER AND ENGINEERING NEWS

MARINELINK.COM

ISSN-0025-3448
USPS-016-750
No. 6 Vol. 88

Maritime Reporter/Engineering News (ISSN # 0025-3448) is published monthly except for January, March, May, July, September and December by Maritime Activity Reports, Inc., 118 East 25th St., New York, NY 10010-1062. Periodicals Postage Paid at New York, NY and additional mailing offices.

POSTMASTER:

Send all UAA to CFS. NON-POSTAL AND MILITARY FACILITIES send address corrections to Maritime Reporter, 850 Montauk Hwy., #867, Bayport, NY 11705.

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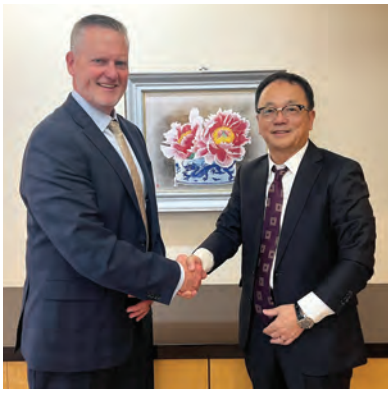
The technology supporting maritime autonomy – surface and sub-surface vessel – is progressing at a rapid clip, but the advent of full commercial, long-haul maritime autonomous operation is likely decades away as the web of global, national and local regulations poses significant hurdles to uniform acceptance and application. But the military side is a completely different story, as all eyes on the Middle East and Russia's war with Ukraine show that relatively low-cost, autonomous, asymmetric weapons help to significantly level the playing field between global powers and emerging countries. To that end, this month we kick-off a 3-article set from **Wendy Laursen** focused squarely on autonomous vessel tech, with Part 1 looking inside the complexities surrounding autonomous platforms and Port Security. In this edition, Laursen highlights some of the most significant technology advances, partnerships and real-world examples of how autonomous vessels both assist – and generate challenges – for the port environment, starting on page 26. My interview with **ClassNK President and CEO Hayato Suga (pictured)** took place in late April when I was in Tokyo for Sea Japan, a regular event on my calendar since 1996. ClassNK is one of the world's prominent class societies, and it has historically been able to work with Japan's domestic companies – some of the world's largest and most technologically sophisticated ship owners, with a still-formidable roster in the ship construction sector, too. ClassNK's leader, on the job in the top spot for just over one year now – but a full career at the ClassNK of 40 years – acknowledges that the industry's current momentum is unlike anything he has seen in his career, specifically noting that the artificial intelligence (AI) and decarbonization technologies are the key points of focus for ClassNK moving forward.



Last, but certainly not least, we welcome **Jeffrey H. Lewis of Cozen O'Connor** – a regular contributor to our *Marine News* brand – and his article starting on page 10: *The Choking Point: How Disruptions in the Strait of Hormuz Are Impacting Global Maritime Logistics, Law and Policy.* As I get older, set to complete my 34th year in this seat, there is little if anything that truly surprises me. But the situation in the Strait of Hormuz – a narrow waterway, a little under 18 nautical miles wide at its narrowest point – that connects the Persian Gulf to the Gulf of Oman and the wider Arabian Sea and is the path for an estimated 20% of the world's energy, is somewhat surreal, as Lewis writes: ***"[The] closure of the strait has made clear an uncomfortable truth: the $123 trillion global economy can be held hostage across a stretch of water just a few miles wide."***

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THE TROUBLE WITH PINNING DOWN MARITIME

By Rik van Hemmen

Connecticut Maritime Association has decided to move its annual meeting and exposition to Houston for the coming year. In the last few years attendance has shrunk and I suppose leadership thinks that Houston has more potential to draw interest from the maritime community.

This leaves me to wonder what the "Maritime Community" actually is.

Connecticut Maritime Association had an interesting origin. In the late 1970's and early 1980's many bulk ship owner/operators got sick of the long commute into New York City and decided to move their offices to Stamford Connecticut, where a number of these owners lived. Soon more owners and operators followed suit and Stamford and surroundings became a mini hotbed of commercial maritime.

Not all maritime moved to Stamford. Container shipping companies moved to the New Jersey side of the Hudson River, and in those days, this resulted in a weird vacuum in New York City. Soon underwriters and naval architects started to move their staff out of the city, and ABS moved to Paramus, NJ.

I am not sure the move to Paramus was ever well thought out and by the 90's ABS had decamped to Houston. I have been told these moves were driven by ABS top leadership, where they simply moved the whole operation to the location where top leadership lived. Noting that with ever improving instant communications there was no reason to stay in New York City, other companies decamped to even more random locations such as Florida, Newport RI, Norfolk, VA and even inland locations such as Atlanta and Raleigh, North Carolina.

Everybody thought that New York city as a maritime hub was toast, and meanwhile it appeared that Houston was the new maritime hotbed, with Connecticut a solid but eventually declining mini hotbed.

CMA ran incredibly successful annual conferences for almost 40 years, but this year decided that New York as a maritime hub no longer was viable for its conference.

I don't disagree, the proof is in the pudding. But maybe we are making the wrong pudding and that is something that has been concerning me for a couple of decades.

When I joined Martin & Ottaway in 1988 in New York City, industry people I met had one comment: "Welcome to a dying industry." These were older executives who referred to the exodus I just described. They were heavily reliant on bulk commodity transportation and were basing their concern on the local decline, particularly evident in the Whitehall Club.

In actual fact I will argue that the greater Port of New York is much more significant today as a maritime hotbed.

Bulk cargo has become more efficient, particularly noticeable in the massive reduction in oil spills in the port and therefore less visible. However, in the 1980's the cruise trade, the ITB inshore/coastal trade, the ferry trade and the excursion trade were at best tiny and in many ways non-existent and today are powerful industry segments in their own right.

Meanwhile, containerization volume continued to grow, and the total oil and chemical volume is still quite large. And after a very long absence, recreational boating in New York City is growing again too.

New York City has always been a cutting-edge port (Steam, excursion vessels, containerization, and many other examples) and continues to be a cutting-edge port. It led in the ferry revitalization and probably will be the lead port for waterborne micro cargo distribution.

It is thought that ship repair and construction is dead in the port of New York. That is not true it, it is just different. Bayonne Ship Repair and GMD can handle big stuff, but the most interesting shipyard developments are up the Hudson River at Feeney, Carver and even Scarano, each unique with their own exceptional strengths.

There actually is so much going on that some types of maritime are not growing simply because we are too busy dealing with all the other activities.

On a personal level I have become aware that high end ecotourism in the Hudson watershed (which is a huge watershed; reaching from the top of the Adirondacks, Erie canal and Lake Champlain to the Hudson Canyon Marine Sanctuary) is completely underexploited.

So yes, maybe New York City is not the largest bulk commodities port in the United and only the largest container port on the US East Coast, but if one puts it all together it probably is the largest commercial port in the United States. A top container port, a significant bulk cargo port, probably the busiest ferry port in the United States, a very busy cruise ship port, probably the busiest excursion port in the United States, and a cutting edge port for micro cargo and ecotourism with an emerging recreational industry.

Hell, it even has the largest sewage tanker fleet in the United States and a massive water born garbage trade!

Maybe it was time for CMA to head to Houston, but maybe it is also time for forward thinking maritime types to converge on the Port of New York once a year, and to really figure out where the industry is going.

For every column I write *MREN* makes a small contribution to an organization of my choice. For the foreseeable future I am selecting SL7Expo. An industry wide effort to develop a Smithsonian level exhibit center for commercial maritime. https://sl7expo.org/members/

THE CHOKING POINT

HOW DISRUPTIONS IN THE STRAIT OF HORMUZ ARE IMPACTING GLOBAL MARITIME LOGISTICS, LAW AND POLICY

By Jeffrey H. Lewis

Since the Iranian Revolution and overthrow of Shah Mohammad Reza Pahlavi in 1979, the Strait of Hormuz has been a geographic constant as a choke point for which closure has been threatened from time to time but never truly closed. The longstanding assumption of the continued openness of the strait collapsed on February 28, 2026. In the weeks since Iran effectively shut the strait to commercial shipping in response to U.S. and Israeli military strikes and the U.S. established its own blockade, the global maritime transportation system has been forced into a rerouting effort of historic proportions. The consequences have rippled far beyond just oil and gas markets, exposing vulnerabilities in global supply chains and potentially threatening important aspects of the customary international law of the sea that are centuries upon centuries old.

The Strait of Hormuz is a narrow waterway—a little under 18 nautical miles wide at its narrowest point—that connects the Persian Gulf to the Gulf of Oman and the wider Arabian Sea. Before the current crisis, roughly 25 percent of the world's seaborne crude oil trade and roughly 20 percent of global liquefied natural gas (LNG) transited the passage daily. Previously, on an average day well over 100 vessels moved through the strait carrying millions of barrels of oil, vast volumes of LNG, and significant quantities of petrochemicals and fertilizers. Asian economies—China, India, Japan, and South Korea—received the bulk of the crude oil transiting the strait, making it an arterial lifeline for the world's most dynamic manufacturing economies.

Closure of the strait has made clear an uncomfortable truth: the $123 trillion global economy can be held hostage across a stretch of water just a few miles wide.

The crisis in the strait escalated rapidly after U.S. and Israeli strikes on Iran beginning on February 28, 2026. Iran's Islamic Revolutionary Guard Corps (IRGC) issued warnings forbidding commercial passage, boarded and attacked merchant ships, and laid mines throughout the strait. Within days, major ocean carriers suspended all transits. The IRGC confirmed the formal closure on March 2, 2026.

The situation devolved further when, following the collapse of diplomatic talks in Islamabad, Pakistan, the U.S. Navy imposed its own blockade of Iranian ports beginning April 13, 2026, creating what analysts came to call a "dual blockade." Iran also began charging vessels tolls exceeding $1 million

per ship for limited passage through Iranian-controlled corridors, further distorting normal commercial operations.

With both the Strait of Hormuz closed and the Bab al Mandeb Strait in and out of the Red Sea vulnerable to Houthi attacks, carriers have been left with only one alternative for Asia-Europe transit: the Cape of Good Hope route around southern Africa.

The Cape route adds 10 to 14 days to a typical Asia-Europe transit and significantly increases fuel consumption and other operating costs per voyage. Container shipping rates surged during the 2024 Red Sea crisis when the Cape route was last pressed into wide use, and the current disruption is far more severe. Traffic around the Cape has remained consistently elevated, with daily transits well above historical norms as operators commit to the longer but safer route.

The increased costs and transit times pose obvious supply chain challenges, but the real problem is capacity, particularly in the case of crude oil. All feasible bypass alternatives to the Strait of Hormuz combined, including the Cape route and Middle Eastern pipelines, can handle at most approximately 10 million barrels per day. Normal Hormuz throughput before the closure was estimated at 20 million barrels per day. Even if every bypass runs at maximum capacity simultaneously, a gap of at least 10 million barrels per day remains with no short-term solution.

Specific pipeline bypass routes do exist but are limited. This is somewhat surprising given the fact that the Strait of Hormuz has loomed as a choke point over Western Persian Gulf countries' economies since 1979. The UAE's Abu Dhabi Crude Oil Pipeline (ADCOP) from Habshan to the port city of Fujairah was specifically built to bypass the strait, but at full capacity it can move roughly less than one-tenth of normal strait crude oil throughput. Saudi Arabia's East-West Pipeline connects Persian Gulf production to Yanbu on the Red Sea, providing an alternative crude export route. It was severely degraded in an attack in early April, but quickly restored to its full capacity of 7 million barrels per day. Iraq reportedly will reopen a long-dormant crude oil pipeline running from Kirkuk to Turkey's port of Ceyhan. It is thought to have a potential full capacity of 1.5 million barrels per day, but currently is said to have capacity to move only a quarter to a half million barrels per day.

On top of, and even more important than, the logistics challenges posed, the current Strait of Hormuz situation could have serious negative repercussions for what is well-settled customary international law regarding freedom of navigation and right of innocent passage.

The international law of the sea provides us with the rules that govern relationships between countries regarding the use and control of the sea and its resources. Until the 17th century, it was assumed that political control and even national sovereignty could be asserted over the sea. Particularly in ancient times, the Rhodians, Carthaginians, and Romans all actively sought to control the seas as far out from their shores as possible. For the Romans, at the height of their empire this amounted to attempted control over the entire Mediterranean Sea.

It was not until Dutch jurist and philosopher Hugo De Groot wrote a book called Mare Liberum (the "Free Sea" or "Open Sea") in 1608 that the seeds were sewn for what would become the legal doctrine of freedom of the seas. De Groot asserted that the seas are common property owned by all mankind and that ships of every nation have the freedom to navigate them. Others, most notably Englishman John Selden, argued that nations should establish sea frontiers, and that foreign vessels be allowed to sail in sovereign waters as a privilege rather than a right ("mare clausum"). Ultimately, De Groot's freedom of the seas prevailed and became established doctrine under customary international law.

Because there is no lawgiver or true law enforcer at the international level, the international law of the sea really has one true source, which is the common will of countries. Most countries of the world have acceded to the United Nations Convention on the Law of the Sea (UNCLOS), with two notable exceptions being the United States and Iran. UNCLOS amounts to an affirmative restatement of customary international law and U.S. courts recognize much of it as such. Articles 37 and 38 of UNCLOS provide that in straits used for international navigation like the Strait of Hormuz, all ships enjoy a right of transit passage, which means the exercise of freedom of navigation solely for the purpose of continuous and expeditious transit through the strait.

If, in our negotiations for the cessation of our attacks on Iran and an ultimate return to peace, we concede some authority or right of Iran to charge a toll to transit the Strait of Hormuz, the United States and the rest of the world will have lost a navigation right all nations have enjoyed for hundreds of years. Even worse is the precedential value of such a concession. What action might China take in the Strait of Taiwan? What action might Russia attempt in the Bering Strait? What of the Turkish Straits, the Strait of Malacca, the Bab al-Mandeb? The geopolitical, national security, and distortive economic and logistics implications are quite serious.

Let us hope that the United States and other nations of the world will reject such an idea outright if it is raised.

The Author

Lewis

Jeffrey Lewis is a member at Cozen O'Connor and has over 30 years of extensive experience representing and advising clients, members of Congress, and federal agencies on a wide range of legislative, regulatory, and policy matters. He previously held senior leadership roles within the U.S. Department of Transportation, the U.S. Department of Homeland Security, and the U.S. Senate Committee on Commerce, Science, and Transportation.

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HAYATO SUGA, PRESIDENT & CEO, CLASSNK

By Greg Trauthwein

Classification societies have always occupied a unique position in maritime: technical arbiters, rule makers, certifiers, and, increasingly, strategic advisors helping shipowners navigate some of the most consequential decisions in shipping's and shipbuilding's history. As maritime grapples with decarbonization mandates, digital transformation, automation, and the growing influence of artificial intelligence, that role is becoming both broader and more complex.

For ClassNK, one of the world's largest and leading classification societies, the challenge is not simply keeping pace with industry change, but helping define how that change unfolds.

For President and CEO Hayato Suga, who took the helm just over a year ago after nearly four decades with the organization, the industry's current moment is unlike anything he has seen in his career.

Suga hails from Hiroshima and graduated Hiroshima University, joining ClassNK in 1986. "This was a time when the maritime industry was facing a significant downturn," said Suga. "While many of my classmates chose to pursue careers in other industries, such as the automotive sector, I deliberately chose this field. Rather than focusing on a narrow area of specialization, I was motivated by a desire to contribute to the maritime industry as a more comprehensive field. For that reason, I aspired to build a career in classification, where I believed I could gain broad experience and make meaningful contributions to society."

That thinking naturally led him to classification.

"I wanted a more comprehensive role," Suga said, explaining that classification offered exposure not only to ship design and survey work, but also regulation, certification, development and broader industry engagement.

That long view has culminated in him taking the top leadership role of a storied organization that today spans roughly 130 offices worldwide, employs approximately 2,000 people, and classifies about 9,700 vessels totaling roughly 280 million gross tons, placing it among the world's largest classification societies.

But sheer scale is only part of the story. The larger question is how classification evolves as shipping itself is fundamentally redefined.

FROM IDEAS TO EXECUTION

When Suga assumed the CEO role, his message internally was simple: move from ideas to action, and that shift is already visible. Over the past year, ClassNK has accelerated approvals in principle (AIPs) for emerging technologies and designs, expanded technical guidance, launched environmental cost simulation services, and invested in new internal structures to better respond to increasingly complex client needs.

Still, Suga is not describing incremental change.

He sees the organization entering a period where responsiveness itself becomes a competitive differentiator.

Shipowners today are not simply seeking technical compliance. They are trying to make expensive strategic decisions amid uncertainty around fuels, regulations, vessel design, digitalization, and operational risk. That changes the nature of what a classification society must deliver.

For Suga, classification is evolving beyond its traditional role as a certifier toward becoming a faster, more integrated technical decision-support partner.

That evolution is being reinforced structurally. This year, ClassNK established a dedicated Digital Division, reflecting the belief that emerging technologies, particularly AI, will reshape both shipping and classification itself.

AI: THE DEFINING TECHNOLOGY

Ask Suga to identify the single most consequential technical trend shaping future ship design and operations, and he answers without hesitation: artificial intelligence. That is a notable response in an industry still focused heavy metal, alternate fuels and decarbonization.

"The use of AI is not limited to improving efficiency," said Suga. "AI is expected to be applied in many fields, and has the potential to drive organizational transformation through more efficient operations, and even to transform business models themselves."

"Specifically, AI has the power to fundamentally enhance the services we provide, in areas such as risk prediction, ship safety assessment, and the optimization of environmental impact," said Suga. "We believe we are now at an important stage where we must establish clear directions for AI governance and move more quickly and reliably toward execution."

The implications for classification are significant. AI can improve risk prediction, enhance safety assessments, optimize environmental performance, streamline surveys, and fundamentally change how technical services are delivered.

Internally, ClassNK is already using generic AI tools to improve workforce productivity and operational efficiency. But Suga's ambitions go further. The organization is developing more specialized maritime-focused AI applications designed to support both internal workflows and client services.

One practical use case involves customer interaction. Routine owner inquiries that today may require multiple exchanges and significant staff time could be dramatically accelerated through purpose-built AI systems capable of generating more precise, technically informed responses. Tasks that currently consume one or two hours could potentially be reduced to minutes. "To strengthen our response to these digital technologies, we established a Digital Division this April 2026 and will advance these efforts in a more structured way," said Suga.

But Suga is equally clear-eyed about the risks.

As AI becomes more deeply embedded in operational decision-making, governance questions become unavoidable. Black-box decision logic, unclear accountability, and legal liability all become critical concerns.

For a classification society, this introduces a dual responsibility. First, using AI responsibly within its own operations; second, developing the expertise to assess AI-driven technologies being deployed by shipowners, shipyards and equipment manufacturers. That second role may become especially important as autonomous systems mature, because if AI becomes central to navigation support, machinery management, shipyard robotics, or autonomous vessel decision-making, classification will inevitably be asked to validate those systems.

That is no small shift.

NAVIGATING THE FUEL TRANSITION

If AI is the most transformative digital trend, fuel transition remains the maritime industry's most immediate strategic dilemma, and trust that the uncertainty around fuel transition and the 'future fuel' remains profound. Shipowners are faced with making vessel design and fleet decisions today that will resonate for three decades or longer, decisions on fuel type and flexibility that could ultimately make or break a company.

When it comes to fuel transition, Suga's answer is pragmatic rather than ideological: there will be no single winner, there is no 'silver bullet' solution.

"During the fuel transition period, we expect multiple solu-

tions to develop in parallel," said Suga. "In the short term, options such as biofuels and LNG will be used, followed by cleaner choices including blue fuels, and eventually a shift toward green fuels. As for the types of fuels that will be available in the future, this will depend on further technological development and investment, as it is difficult at this stage to narrow down to a single option. It is also highly likely that multiple fuels will continue to coexist, depending on vessel types and operational needs."

While the journey has started, the exact endpoint remains uncertain, and that uncertainty is not simply technical, it is regulatory, too.

Suga repeatedly emphasizes the degree to which fuel transition will be shaped by policy frameworks rather than purely voluntary action. While large owners with strong ESG commitments and deep pockets are moving more aggressively, broad industry transformation and uptake will depend heavily on regulatory signals.

But for all shipowners of every size, from the smallest 'mom and pop' fleet to the largest shipowners making billion-dollar capital decisions and investments, this ambiguity complicates everything, and that is where classification's advisory role becomes increasingly valuable.

ClassNK is positioned as both a technical validator and strategic interpreter, helping owners understand not only what regulations require, but why they exist and how different compliance pathways may evolve.

Yet Suga repeatedly returns to a simpler truth often overshadowed by fuel debates: efficiency still matters.

Energy-saving technologies, including wind-assisted propulsion, advanced coatings, voyage optimization, and broader operational efficiency measures, remain some of the most reliable and cost-effective emissions reduction tools available to all vessel owners of every shape and size today.

Even in a zero-emission fuel future, reducing consumption will remain economically critical.

That logic has not changed.

CLASSIFICATION AS STRATEGIC ADVISOR

The classification model itself is changing. Historically, classification societies primarily evaluated technical compliance against established rules. That role remains foundational, but owners increasingly expect more: they need insight.

"Classification societies support shipowners facing complex technical challenges by providing reliable third-party certification and practical insights to help their decision-making," said Suga. "For example, at ClassNK, we support decision-making by sharing insights on topics such as the adoption of alternative fuels, technological trends, and developments in environmental regulations. We also contribute to supporting the practical implementation perspective of new technologies by assessing their safety and reliability. In addition, we provide training and education services to help strengthen human capital within our clients' organizations."

"Furthermore, we place strong emphasis on prompt and responsive surveys and inspections, ensuring timely service delivery. Beyond traditional classification services, we also actively provide certification services in areas where our expertise is required."

Whether it is alternative fuel guidance, regulatory interpretation, technology assessments or practical implementation advice; ClassNK is leaning into that broader remit. Suga describes classification's role as helping owners make informed decisions by combining independent certification with technical intelligence.

That includes research functions designed to track fuel developments, regulatory trends, and emerging technologies, giving owners clearer context before major investments are made.

Once strategic direction is established, ClassNK's technical teams, through certification and survey, confirm that the technology is ready for actual installation, helping ensure safe and smooth implementation. This is especially important because complexity is increasing everywhere.

Shipowners face increasingly interconnected technical questions involving machinery, fuels, digital systems, compliance frameworks, and operational risk. It's no small matter that shipyards face similar uncertainty.

Classification's value lies partly in bridging those information gaps.

A DIFFERENTIATED MODEL

The classification sector is highly competitive, with several major global players operating across overlapping markets. Suga believes ClassNK's differentiation begins with organizational focus.

Unlike some competitors with broader industrial certification portfolios, ClassNK remains heavily concentrated in classification-related work. That specialization, he argues, creates deeper expertise and stronger organizational alignment.

But the more interesting differentiator may be organizational structure. ClassNK's long-term employment culture has produced a workforce combining deep specialists with professionals whose experience spans plan approval, ship surveys, audits and development work. That cross-functional familiarity enables faster internal coordination and more cohesive responses to client needs.

Suga frames this as a meaningful competitive advantage.

Rather than fragmented interactions between isolated departments, clients receive more integrated technical engagement. It is, in many ways, a distinctly Japanese management philosophy applied to a global technical business.

TECHNOLOGY INSIDE THE SURVEY PROCESS

"At ClassNK, we are investing in advanced digital technologies, including remote surveys, to improve the efficiency and ef-

fectiveness of our survey and certification services, as well as to enhance safety," said Suga. Digital transformation is not limited to the ships themselves, in how they are designed, built, outfitted and maintained for their service lives. Digital transformation touches every aspect of the maritime industry – one generally classified as conservative and moving forward at a glacial pace. With that, ClassNK is also modernizing its 'digital transformation,' specifically how core classification work gets done.

Remote survey capability has become one of the most practical examples. Geopolitical disruptions in regions like the Middle East have underscored the operational importance of maintaining inspection and certification continuity when physical access becomes difficult or unsafe. Remote survey tools provide that resilience. Beyond continuity, digital tools are also reshaping efficiency. "By using AI for image analysis and initial data checks, we aim to create an environment where surveyors can focus more on important decisions and risk assessment," said Suga.

AI-assisted image analysis, automated data screening, and smarter pre-inspection workflows could allow surveyors to spend less time on repetitive tasks and more time focused on higher-value technical judgment.

It's important to realize that the objective is not replacing surveyors, it's enabling them to concentrate on risk evaluation, decision-making and technical oversight. The same thinking extends into shipbuilding, where AI and robotics are beginning to influence construction methods, inspection practices, and future compliance frameworks.

THE ROAD AHEAD

For Suga, perhaps the biggest leadership challenge is trust. As shipping becomes more regulated, more transparent, and more technologically complex, the number of stakeholders touching classification expands:

fuel suppliers; technology developers; autonomy providers; software firms; investors; regulators; and charterers. "As a certification body, we recognize that improving awareness and trust among a wider range of stakeholders is one of our key challenges going forward," said Suga.

That changes the visibility, expectations, and accountability surrounding classification societies.

ClassNK's response is not to become something fundamentally different, but to extend its traditional strengths into new adjacent needs.

Suga is clear that the organization remains focused first on serving shipping rather than diversifying for diversification's sake.

That philosophy reflects ClassNK's roots as an industry institution rather than a purely commercial enterprise.

And perhaps that is the broader story. At a time when shipping is navigating one of the most disruptive transitions in its history, classification societies like ClassNK are a trusted remit for technical expertise, but no longer simply technical gatekeepers.

They are becoming navigators in their own right. For ClassNK, the challenge is ensuring it remains both trusted and relevant as maritime reinvents itself.

"In the financial world, it can be tempting to take the easy way out—to invest smartly and let the money work for you. But you don't build a country on capital gains alone".

Image courtesy Josefine Spiro

PER SÆVIK, HAVILA

"I Hope to Be Remembered as a Decent Man"

By Josefine Spiro

If you were invited to lunch at the home of 85-year-old Per Sævik without knowing his history, your first impression would likely be shaped by three things. First, his modest house — a traditional Norwegian home on a small, weather-beaten island on the northwest coast — has remained largely unchanged since he and his wife built it in 1971. Second, his simple taste in food; Per prefers a basic lunch of sliced bread with butter and jam. Finally, his conversation. He enjoys discussing sports, culture, and community development, showing little interest in personal status. As he puts it: "I grew up as one of nine children in a time that was rich in most things, except money. That shaped my life, and I have a very grounded relationship with material wealth."

Knowing this, it might come as a surprise to learn that this man — who has never been a bon vivant, but rather a dedicated community builder — is one of the most successful figures in the Norwegian maritime industry. Through Havila Holding, which he owns with his children, he has built an empire spanning fisheries, offshore energy, ship technology, real estate, and tourism.

The latest addition, Havila Voyages, operates four coastal cruise ships on the historic Norwegian Coastal Route between Bergen and Kirkenes. This venture stands as perhaps the greatest achievement of his career—and undoubtedly the most challenging.

Representing Norway's largest tourism initiative in 30 years, Havila Voyages faced a highly turbulent launch. First, the Spanish shipyard contracted to build two of the vessels went bankrupt, forcing the order to be moved to the Tersan Shipyard in Turkey. Subsequently, the COVID-19 pandemic caused severe delays throughout 2020 and 2021. As if that weren't enough, the project's financial backer was Russian-owned; when the war in Ukraine broke out in 2022, the ships were hit by international sanctions. Under immense time pressure, the company had to execute a massive rescue operation to secure new solutions.

The Offshore Adventure: Through Havila Shipping, Per Sævik navigated the PSV and subsea markets through several industry crises. Pictured: the *PSV Havila Charisma*.

Image courtesy Havila Shipping ASA

"It culminated on a day we were docked in Bergen at four in the afternoon, scheduled to sail at eight that evening with a nearly full ship—only to receive a message that our insurance coverage had been canceled," Per recalls. "At that point, I had just about had enough. But we knew that if we just gritted our teeth and kept pushing, things would eventually work out. And they did. Today, Havila Voyages doesn't look half bad."

(For the record: In Per's world of humble understatement, "not half bad" translates to "very promising.")

"I just wanted to see if I could do it"

I meet him in the polar opposite of his home residence: a spacious corner office on the fourth floor of an architectural landmark. Constructed of glass and stone with panoramic views of the fjord, the Havila building is known locally as "The Diamond."

If you bypass the elevator and take the stairs from the ground floor up to Havila Holding—climbing past the headquarters of Havila Voyages and Havila Shipping—you are met at the very first step by a wall adorned with an old photograph of a young fisherman in a rowboat. Beside it is the famous quote: "I just wanted to see if I could do it."

That was six-year-old Per's answer when his horrified mother asked what on earth he had been thinking, taking the rowboat out alone and rowing a full nautical mile from home, straight across the fjord to the town of Fosnavåg.

Since then, it has become something of a life rule: the more challenging a task, the more exciting it is to attempt.

"Now that I've turned 85, I reflect on the fact that I really have initiated a lot of things I perhaps lacked the prerequisites for," Per admits. "If I had made fewer ill-considered investments, we would certainly be sitting quite comfortably today."

He has spoken before about the times the family business teetered on the brink of bankruptcy during the oil crisis, entangled in debt negotiations with eleven different banks, shareholders, and bondholders.

"But all in all," Per continues with a smile, "the good decisions have outnumbered the bad."

Building a Community

When Per speaks of "good decisions," he doesn't primarily measure the return by the bottom line. His driving force is the joy of creation; it is the belief that one should be of "use and benefit" to others. Per views business leaders as community builders with a responsibility that extends far beyond the workplace.

"In the financial world, it can be tempting to take the easy way out—to invest smartly and let the money work for you," Per says. "But you don't build a country on capital gains alone. If anything is to happen in a small coastal community like ours, it is our responsibility as business leaders to ensure that employees have a meaningful life outside of working hours. We want to help build a community so attractive that it draws in the best talent."

Today, the coastal town of Fosnavåg boasts a world-class concert hall, a four-star hotel with modern conference facilities, a water park, and a vibrant sports and cultural scene. All of this was made possible by Per and other civic-minded business leaders who have injected significant capital—and a burning dedication—into the community.

"Like driving a screw into cardboard," the doctor said

Per is in his usual spot behind the desk, a fixture of his daily life since the Havila Group moved into "The Diamond" in 2011. Today, however, the computer monitor in front of him sits dark and disconnected. His hours here are a fraction of what they were only a few years ago. In 2023, he underwent surgery for colon cancer, but a post-operative complication forced him back onto the operating table.

"The cancer itself was successfully treated, I think. But because it took too long to catch the complication, a secondary back injury set in that I still struggle with today. The doctors won't operate; they say it would be like trying to drive a screw into cardboard," Per says bluntly. "I have to be honest—since my illness, I don't have the same drive I once had. It is only fitting that I 'sign out' now."

Image courtesy Elias Reite

Passing the torch: Per Sævik with his children, who are now taking the helm of his life's work. From left: Vegard Sævik, Hege Sævik Rabben, Per Sævik, and Njål Sævik.

This realization led him to hand over the reins of his life's work to the next generation in December 2025. By the spring of 2026, he will have stepped back completely. When asked if it will be easy to refrain from interfering in operations, Per replies: "The risk is definitely there. At the same time, I am well aware that I must try to live up to the expectation that I'll let my children make the decisions from now on."

"But I'd still like to know what's going on," he adds wryly.

On People and Principles

Per has no hobbies; for as long as he can remember, his work has been all-consuming. His course was set at the age of twelve when he took his first job as a small-boat fisherman, spending his youth alternating daily between the classroom and the sea. With his earnings, he bought his first boat—and create further value.

Today, the empire he has built is worth billions. How did he actually achieve it—beyond a willpower like few others, a relentless drive, and an exceptional resilience in the face of adversity?

"With my limited formal education, I have always relied on having people around me who are smarter and more capable than myself. That is a prerequisite for the success of the team," Per says. "A leader who is afraid of having more skilled people in the system will always be a poor leader."

He adds: "Beyond that, you must have a moral standard that ensures people can trust your word. You must never fall for the temptation of shortcuts for quick gains."

And most importantly: Being a fellow human

"It is a law of life that the people you meet on the way up are the same ones you meet on the way down," Per says. He falls

"I just wanted to see if I could do it": This quote and a photo of Per as a teenager hang on the wall at the Havila headquarters.

Source: Private

silent for a moment, his gaze fixed on the pale morning light beyond the panoramic window. “Being human is perhaps the most important foundation for leadership, but it is also one of the greatest challenges in the rush of daily life. When my time is up, I hope people are left with the impression that I behaved decently and with integrity. I hope they know I appreciated my employees and that there was no hierarchy—that we were all on the same level.”

One last thing...

The interview is winding down. Per will soon be heading home to his wife and his traditional lunch of butter and jam sandwiches, but before we say our goodbyes, we ask: “Is there anything else you would like to share?”

He thinks for a moment, smiles, and says: “No, I think you’ve covered the essentials of my working life”

“What about your personal life?” we venture.

“No, not really, because...” He catches himself. “It is, of course, a great joy to have become a great-grandfather.”

He smiles broadly. “To a little girl named Lydia. They are in New Zealand at the moment. We just got a picture of her—she’s already got two teeth and everything.”

Per laughs now—he is the type of person who laughs out of pure joy, before proudly adding that he is also blessed with eight grandchildren, most of whom live nearby.

As I leave his office, it strikes us that we now know exactly how Per intends to spend his retirement.

Source: Oclin for Havila Voyages

Royal T Shipyards

SHIPBUILDING: RESOURCEFUL DUTCH PLAY TO STRENGTHS

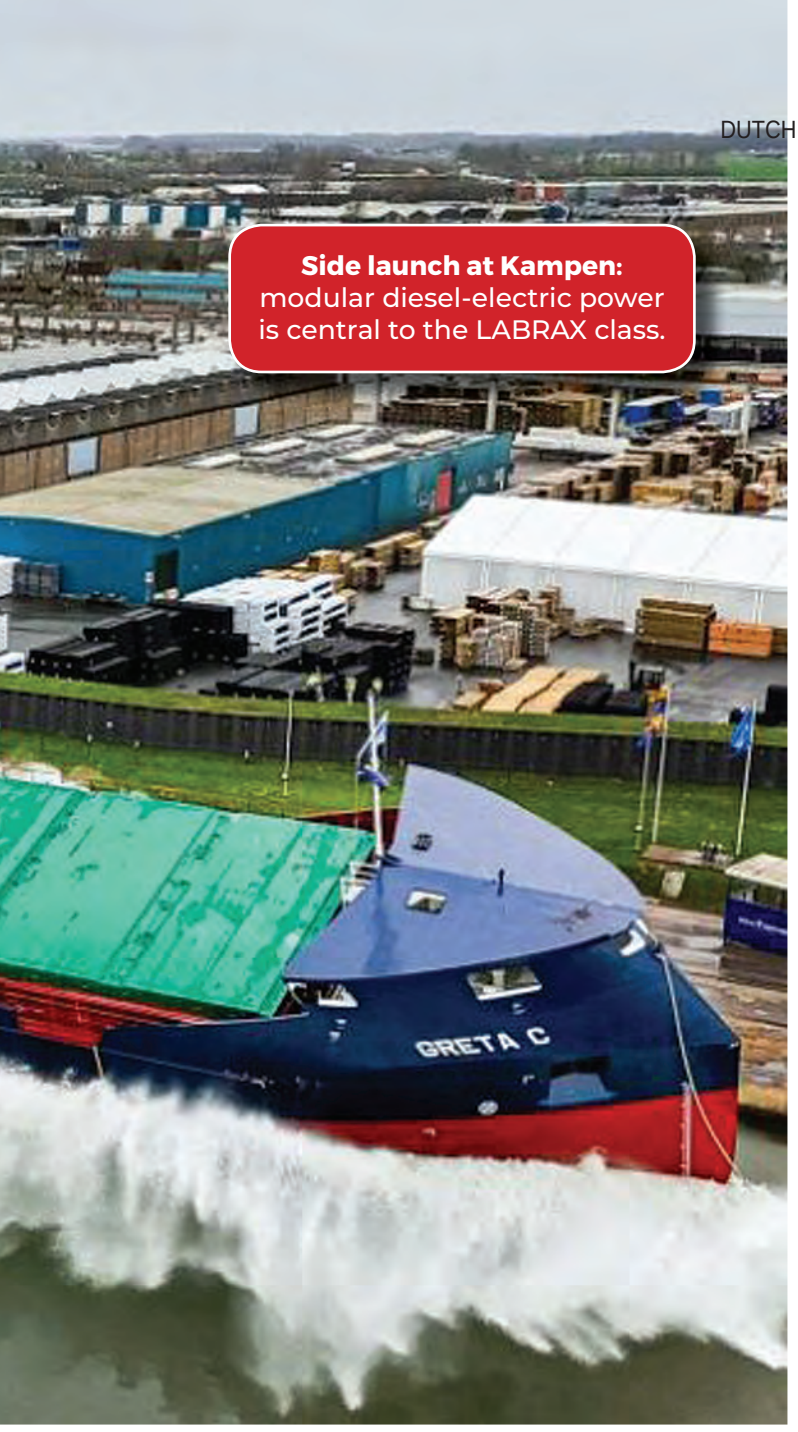
Adept design and production strategies underpin global competitiveness in target sectors.

By David Tinsley

Dutch shipbuilding continues to demonstrate resilience and business verve in its target commercial sectors, mainly in the smaller vessel size range. It offers quality and craftmanship at an evidently acceptable price, using technology in the most pragmatic, effective way.

The fact that the Netherlands retains a progressive and expansion-minded shipowning and ship management community has a signal influence on the shipbuilding sector, as does the existence of a comprehensive supply chain and network of designers and knowledge centers.

Dutch to the core in concept and realization, 'Easy to build, easy to operate, and easy to load' are central tenets of the EasyMax 14,000dwt multi-purpose cargo vessel type, developed by **Conoship International** of Groningen together with shipowner **Royal Wagenborg Shipping** and



Side launch at Kampen: modular diesel-electric power is central to the LABRAX class.

shipbuilder **Royal Niestern Sander**. The EasyMax platform has to date been used or specified for 12 newbuilds. Highly efficient consumption per payload ton is delivered from a 2,999kW main engine.

As the largest class of ship built to date on the landward side of the coastal dyke in the north Netherlands, the EasyMax flotilla now includes a variant dedicated to the transport of liquefied CO2. Boldly named **Carbon Destroyer 1**, the newly-commissioned vessel has been assigned to a shuttle-type operation loading 5,000-ton cargoes out of the Danish west coast port of Esbjerg for discharge at the Greensand CO2 offshore storage site in the North Sea.

The fifth of six Series 1 EasyMax 14,300dwt units booked over a 10-year period, Carbon Destroyer 1 differs from her general-purpose peers in having been tailored to the thermal behaviour of liquefied CO2. This has required specialized containment, integrated safety zones, and a high-redundancy energy and propulsion layout. Dynamic positioning to DP2 standard has been necessitated by the rigorous demands of year-round, on-station offloading in the open sea. Royal Wagenborg's investment has been underpinned by a long-term charter agreement with **UK-headquartered INEOS Group**.

Last year, the Dutch operator signed-off on a batch of six second-generation EasyMax cargo vessel newbuilds, ensuring production continuity for the Royal Niestern Sander shipyard in the coming years. Features of the EasyMax 2 sextet include provision for a range of alternative fuels, enhanced shore power connectivity, and improved energy management.

Diesel-electric Advance

Conoship has played a leading role in shaping short-sea and small cargo vessel design and procurement across the decades, and its continuing endeavors are expressed in the CIP platform spanning the size range up to 9,000dwt.

The centerpiece of the technical arrangements is a frequency-controlled diesel-electric power and propulsion train that regulates the speed of the screw according to variables such as engine load, water depth and navigation route. Based on small gensets feeding twin electric propulsion motors, the design provides for economic, future adaptation to aggregates driven by prime movers running on fuels such as methanol or hydrogen and is also readied for installation or retrofit of **Econowind Ventofoils**. Customization scope also embraces battery packs and carbon capture systems.

Recent transactions have featured the 3,600dwt, 3,800dwt and 6,400dwt versions for Dutch, German and Norwegian owners, producing orders for shipyards with whom Conoship collaborates in the Groningen region of the northern Netherlands, and also for builders in India and Turkey. The CIP line-up has lately been augmented with a 4,400dwt variant developed from the CIP3800.

Such rethinking of vessel design, as a shift from traditional, single-engine, four-stroke diesel-mechanical propulsion, is also amply expressed in production at **Royal T Shipyards**, formerly the **Thecla Bodewes** establishment at Kampen, on the River IJssel. The builder recently delivered the last unit in a 10-ship series of 7,300dwt diesel-electric short-sea traders ordered by **Vertom** Shipping and based on the LABRAX class developed in cooperation with **Groot Ship Design**.

Each 119-metre cargo vessel is equipped with four main gensets and twin asynchrous propulsion motors. The Volvo Penta aggregates incorporate the Swedish company's D13-type high-speed engines, each turning out 400kW at 1,800rev/min. A further batch of LABRAX newbuilds is in hand for the UK operator **Carisbrooke Shipping**.

Tailored to for short-sea trade into Sweden's lake system, the AccessMAX tanker type will be built by Ferus Smit.

Thun Tankers

Stock Building Pays Off

Melding the practice of the **Damen Shipyards Group** for stock building of standardized designs with the competitiveness afforded by a globally diverse shipbuilding network, the production of newbuilds in its Combi Freighter (CF) portfolio exemplifies enduring Dutch prowess in the short-sea cargo vessel market. In particular, the latest version of the 90-metre CF3850 type, a 3,850dwt single-hold trader suited to multifarious bulk commodities and industrial products, is courting major interest.

After multiple vessels of the class in its original form had been delivered by Damen over the preceding 20 years, the CF3850 was redesigned, updated and released at the start of the current decade. Market receptivity has been such that, by the end of March 2026, the revised design had attracted a total of 50 sales in little more than five years, with 38 delivered.

For this latest iteration, construction has been concentrated at the Yangtze River premises of Chinese affiliate **Damen Yichang**, and also more recently at **Ba Son Shipyard**, the Dutch group's partner in Vietnam.

The reworked CF3850 uses a six-cylinder DZC medium-speed main engine from **Anglo Belgian Corporation (ABC)**. The modest 1,104kW output—some 50% less than that of the **MaK** machinery powering the early CF3850s—has a positive bearing on EEDI rating and CO2 emissions.

One of the strongest cards held by Damen is its ability to ensure early or rapid delivery through its build-for-stock policy. From the buyers' perspective, short contract-to-completion timeframes reduce overall project costs and risks and facilitate responsiveness to market opportunities. Continual evolution of the CF3850 is guided by feedback from operators.

The value of longstanding relationships, whereby the contractor remains fully attuned to market conditions and the specific requirements of the client, has again been underscored by fresh business for **Ferus Smit** from Sweden's **Erik Thun Group**.

Two newbuild tankers of 4,500dwt will encapsulate a design allowing navigation to ports and terminals on Sweden's inland lake system, while ensuring flexibility for broader North Sea and northwest European operations. The shallow-draught **AccessMAX** class offers a 10% increase in cargo intake and enhanced cost efficiency per ton relative to previous generations.

To date, Thun has received more than 50 cargo vessels and tankers built by Ferus Smit, mainly from the headquarters yard at Westerbroek, near Groningen, but also out of the Dutch builder's yard at Leer, just across the border in Germany.

Innovation, collaboration in both production and pre-competitive research, plus a 'can-do' mindset, together have a signal bearing on Dutch yard's high profile in core markets.

EasyMax versatility: Liquefied CO2 carrier on a multi-purpose cargo vessel design platform.

Royal Wagenborg

Ocean Aero's Triton autonomous underwater and surface vehicle (AUSV) was taken up by the Port of Gulfport in Mississippi last year.

AUTONOMOUS VEHICLES SOLVE *(AND CREATE)* PROBLEMS FOR PORTS

Ocean Aero

Autonomous vehicles are increasingly sophisticated defensive tools for ports wanting to protect against maritime threats - including attacks from other autonomous vehicles.

By Wendy Laursen

On December 15 last year, the Security Service of Ukraine reported that its underwater drone had struck a Russian submarine in Novorossiysk. The incident highlighted just how sophisticated potential threats have become. Harbor cameras were likely hacked, providing real-time visual evidence of the attack, with associated AI possibly identifying and guiding the autonomous underwater vehicle (AUV) to its target.

The value of AI is evidenced by the many technology partnerships that are forming between platform, software and sensor creators. Late last year, Ocean Power Technologies (OPT) announced a partnership with Mythos AI to integrate AI-driven autonomy software across OPT's fleet of WAM-V autonomous surface vehicles (ASVs). These vehicles leverage real-time edge processing, multi-sensor fusion and adaptive learning for enhanced situational awareness, obstacle avoidance and multi-vehicle coordination.

Dr. Fritz Stahr, chief technology officer at Open Ocean Robotics, says the integration of AI to analyze data streams from autonomous vehicles is transforming the field. Enhanced Horizon, Open Ocean Robotics' AI-driven analytics took kit, delivers real-time object detection, classification, and tracking using optical and thermal cameras, giving operators immediate situational awareness above the surface. For underwater intelligence, Underwater Listener is an AI-enabled acoustic monitoring system that detects and visualizes underwater sounds in real time. It captures acoustic activity from sources such as ship engines, marine mammals, and underwater machinery, streaming insights directly to XplorerView.

As **Shane Swiderek, Product Marketing Man-**

Corsair,
Saronic's 24-foot ASV, supports a wide range of applications including maritime domain awareness, port, harbor, and offshore facility security monitoring, logistics shuttle operations and environmental monitoring.

Saronic

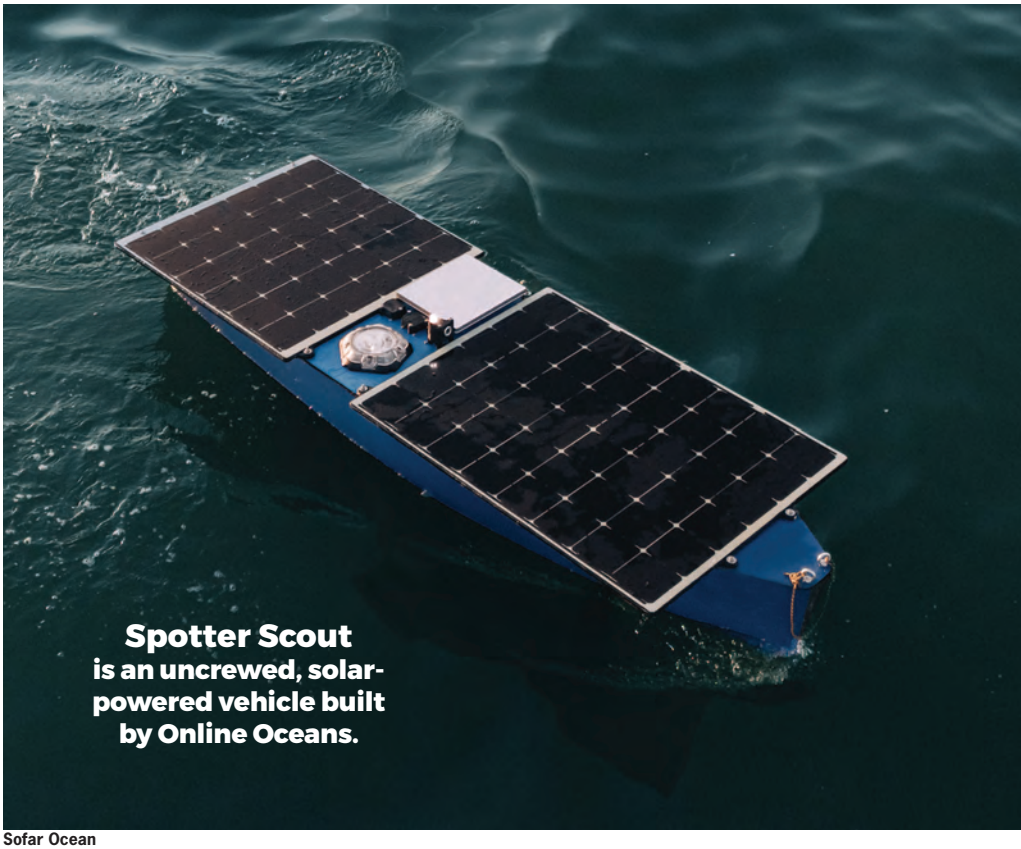
ager of Sofar Ocean, points out: "Detection only matters if it's fast enough to act on. Real-time processing at the sensor closes the gap between identifying a threat and responding to it."

One of the most pressing challenges is having a clear, real-time understanding of what's happening in and around a port, says **Rob Lehman, Co-Founder and Chief Commercial Officer at Saronic.** Today, many ports still rely on legacy approaches — manpower-intensive patrols on costly manned platforms — which deliver only episodic coverage and leave persistent blind spots that adversaries can exploit, he says. "To counter these threats, we're seeing a shift in priorities toward solutions that are scalable, autonomous and data-driven, built on distributed, attritable systems capable of operating 24/7 with minimal human oversight." Corsair, Saronic's 24-foot ASV, supports a wide range of applications including maritime domain awareness, port, harbor, and offshore facility security monitoring, logistics shuttle operations and environmental monitoring.

Philip Lewis, Director of Research at Intelatus, has undertaken a comprehensive review of AUV and ASV technology. "Just think of them as a blank canvas," he says. A flexible variety of payloads means they can undertake a range of tasks including detecting unwanted intruders, people trafficking and illegal migration. They are also being used for firefighting, bathymetry, environmental surveys and trash and algal bloom removal.

USVs offer a low-cost immediate force multiplier for port security, he says. "They're generally quick to take from concept to production, and new solutions are coming out in under a year. They're unmanned, so they are a lot less complex to build than manned platforms. Take-up has been fastest in big European ports, such as Rotterdam and Hamburg, and in Asian ports such as Singapore, but the U.S. is increasingly focused on the force multiplier effects."

U.S. government agencies have tested

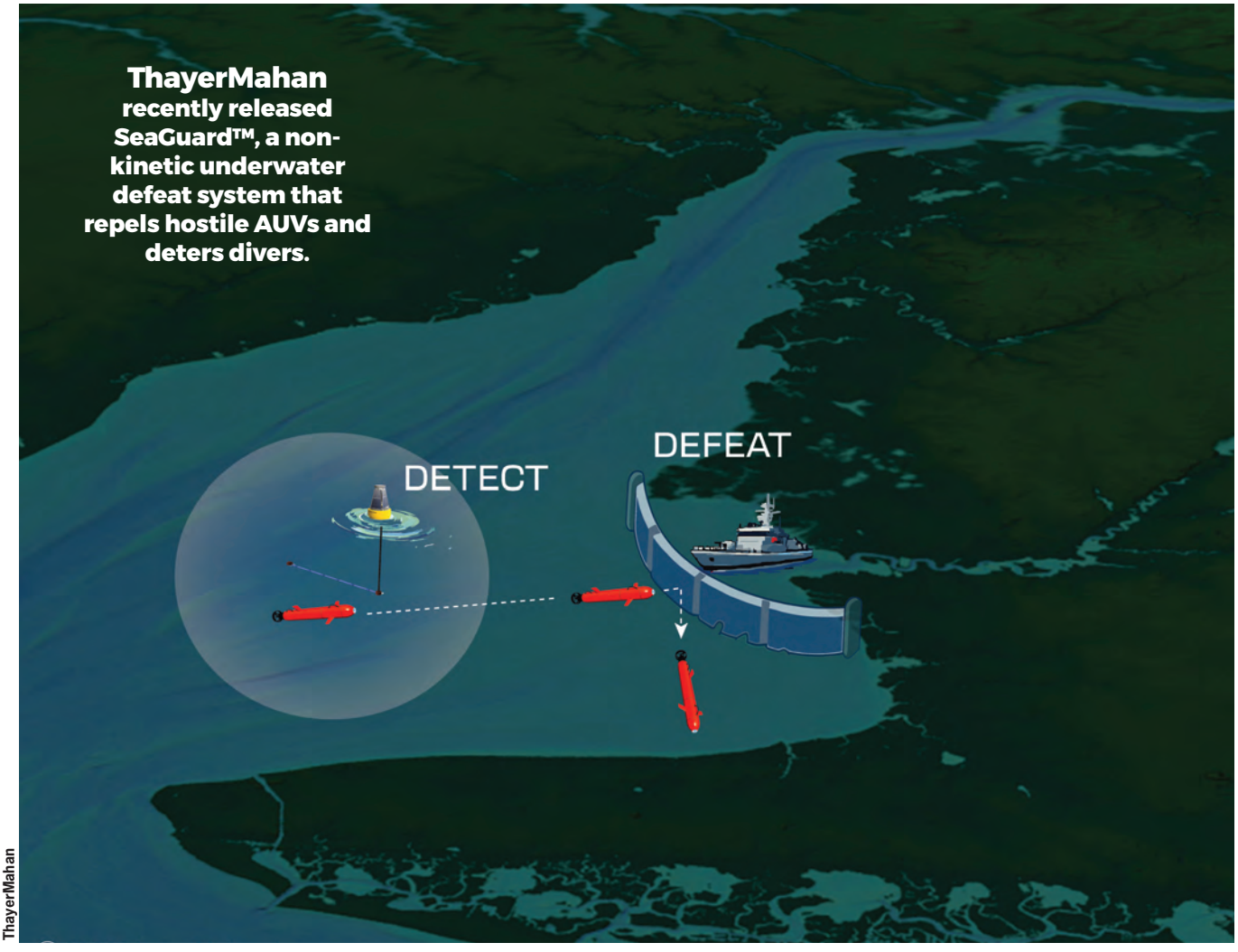


Sofar Ocean

Dr. Fritz Stahr,

chief technology officer at Open Ocean Robotics, says the integration of AI to analyze data streams from autonomous vehicles is transforming the field.

Open Ocean Robotics



ThayerMahan recently released SeaGuard™, a non-kinetic underwater defeat system that repels hostile AUVs and deters divers.

ThayerMahan

Ocean Power Technologies (OPT) has partnered with Mythos AI to integrate AI-driven autonomy software.

Forcys has announced it will deploy its Sentinel Intruder Detection System across multiple sites for a close allied nation to protect vital elements of their critical national infrastructure.

Ocean Aero's 4-meter Navigator and Discovery models. Saildrone is supplying at least 20 of its Voyagers to the U.S. Navy to monitor illegal activity along the U.S. southern maritime approaches, and the Navy and Coast Guard have deployed MARTAC and SAFE Boat USVs for demonstrations at Californian ports. Ocean Aero's Triton autonomous underwater and surface vehicle (AUSV) was taken up by the Port of Gulfport in Mississippi last year. The vehicle does a full scan of the port twice a week using a variety of subsea payloads including bathymetry, side-scan sonar and magnetometers to produce high-resolution comparative datasets for real-time change detection. From his satellite office in Houston, **Ocean Aero CEO Kevin Decker** says: "I can say with certainty that there is not espionage or sabotage placed at the bottom of the Port of Gulfport because I checked this morning and I've checked twice a week for the past nine months. I can't say the same thing for the ports of New York City, Los Angeles, Houston or Seattle. In an era of conflict and sea mining, that needs to change."

Forcys and its partners demonstrated their combined underwater and multi-domain security systems at Portland Port, UK, last year. Observers were able to watch the threat scenario unfold in real time as the company's Sentinel Intruder Detection Sonar (IDS) and MARSS' NiDAR command and control platform worked in tandem to detect, track, classify and respond to a range of hostile events from underwater and the air.

NiDAR is a sensor-agnostic, multi-domain surveillance and security platform that integrates data from a wide array of sensors including sonar, radar, radio frequency and electro-optical/infrared. The demonstration showed the power of integrating both passive and active sonar data when tracking low target strength drones or very slow-moving targets in the highly cluttered seabed conditions typical of some harbors.

Payloads need not be bespoke. Commercial off-the-shelf (COTS) hardware and software is reliable, cost-effective and fast to implement – something that Forcys, soon to be part of the Kraken group, leverages. **Technical Sales Manager, Benn Pickering,** says: "With COTS, you benefit from tried-and-tested technology that has already been proven in real-world conditions." Another key advantage is that COTS solutions evolve to keep pace with emerging technologies. "At Forcys, we go beyond simply offering COTS products. Our technology partners are creating an ecosystem of compatible technologies that work seamlessly together, providing end-to-end solutions without compatibility issues," says Pickering. He cites the example of Sonardyne's SPRINT-Nav, an all-in-one subsea navigation instrument that integrates an inertial navigation system, a Doppler velocity log and a depth sensor.

Like the Ukrainian drone, the sophisticated technologies now available support attack operations as well as defense. In response, ThayerMahan recently released SeaGuard, a non-kinetic underwater defeat system that repels hostile AUVs and deters divers. When coupled with ThayerMahan's TransparenSea, Outpost, and SeaPicket acoustic intelligence solutions, it offers a detect-to-defeat chain. "From my time in uniform to my role today, one truth has remained constant: the underwater domain evolves rapidly, and the threats evolve even faster," said **CEO Vice Admiral Mike Connor, U.S. Navy (Ret.).**

Submarines remain strategic priority number one for the U.S. Navy in the recently released USN Shipbuilding Plan.

THE U.S. NAVY SHIPBUILDING PLAN

U.S. Navy's New Fleet Blueprint:

Bigger, Broader, and Built for a Different Fight

The U.S. Navy's new shipbuilding plan is, in many respects, an admission that the current model is no longer working, and the numbers tell the story. Today, the Department of the Navy operates 291 battle force ships, well below the long-standing statutory requirement of 355. Perhaps even more troubling is the Navy's acknowledgement that while its shipbuilding budget has doubled over the past two decades, the fleet has not meaningfully grown. IThe problem is not simply industrial, it is structural, rooted in acquisition inefficiencies, unstable requirements, unrealistic cost estimates, and chronic schedule delays.

That reality frames the May 2026 *U.S. Navy Shipbuilding Plan*, a 30-year roadmap that outlines not simply a larger fleet, but a fundamentally different one.

Per the report, the message is clear: the future U.S. Navy will be a high-low mix of traditional capital warships, more affordable distributed combatants, expanded amphibious capability, recapitalized logistics support vessels, and a rapidly growing layer of autonomous systems. Putting the recommendations from the report to reality is another matter, but following is what the report is suggesting.

The Fleet Today

Heavy Capability, Limited Capacity

The Navy remains the world's most globally deployable maritime force, but it is doing so with mounting structural strain. Aircraft carriers remain central to American power projection; Arleigh Burke-class destroyers continue to serve as the backbone of the surface fleet; attack submarines remain among the Navy's most prized strategic assets; Amphibious forces continue to underpin expeditionary operations. But the Navy's own report makes clear that force structure is increasingly mismatched against demand.

Its answer is what leadership calls a "high-low mix" strategy, a force that preserves expensive, survivable, high-end combatants while expanding lower-cost vessels and unmanned platforms that can be produced faster, fielded in greater numbers, and adapted more rapidly.

By FY31, the Navy projects:

- 299 battle force ships
- 68 auxiliary ships
- 83 unmanned vessels

For a combined total naval vessel inventory of 450 ships and platforms, which is a notable conceptual shift. For the first time, the Navy explicitly counts auxiliaries and qualifying unmanned vessels alongside traditional battle force ships as part of overall naval combat power.

Surface Combatants

Surface combatants remain central to Navy strategy, but the mix is changing. Destroyers remain the workhorse, and the Arleigh Burke-class guided missile destroyer remains the Navy's core large surface combatant.

The shipbuilding plan calls for procurement of seven DDG 51 destroyers across the FY27-FY31 Future Years Defense Program, maintaining serial production as the Navy seeks to stabilize the industrial base and preserve fleet capacity.

The Navy is explicit that Arleigh Burke destroyers remain indispensable for integrated air and missile defense, anti-surface warfare, anti-submarine warfare, strike warfare,and Carrier Strike Group escort missions.

But it is equally clear that destroyers are too expensive to use as universal tools. The report directly states that a fleet composed solely of high-end destroyers would be unaffordable to build, crew and sustain. That logic drives expansion at both ends of the force structure.

Frigates

A Distributed Surface Combatant

The Navy plans to procure four frigates across the FYDP, positioning them as the affordable, scalable lower-end

complement to destroyers. The Navy sees frigates as handling: convoy escort, Anti-submarine warfare, maritime interdiction, homeland defense, counter-drug operations and surface warfare in lower-threat environments. This is a familiar concept, but the urgency is sharper now. The Navy is looking for hulls that can be produced at scale, freeing destroyers for higher-end combat missions.

Battleships

One of the more eye-raising parts of the plan is the introduction of a next-generation Battleship (BBGN) program. The Navy proposes procurement of three nuclear-powered battleships across the FYDP. This is not nostalgia, rather the Navy frames the platform as a large, survivable combatant designed for:

- High-volume long-range fires
- Hypersonic weapon integration
- Theater nuclear weapons capability
- Massive power generation for future systems
- Electronic warfare
- Directed energy weapons
- Advanced naval gunfire
- Sea-based command-and-control capability

Whether the program evolves exactly as described remains to be seen, but the strategic message is unmistakable: the Navy believes larger, power-dense surface combatants still have a role in conflict.

Submarines:

Strategic Priority Number One

If surface warfare reflects adaptation, submarines reflect urgency. The Navy plans to invest $124.9 billion across FY27-FY31 in submarine construction, making undersea warfare one of the dominant pillars of the shipbuilding strategy.

Columbia-Class SSBN

The sea-based nuclear deterrent remains non-negotiable. This is explicitly identified as the Department's top acquisition priority. The Navy plans:

- 1 Columbia-class submarine in FY27
- 5 across the FYDP
- $62 billion investment

Virginia-Class SSN

The Navy also plans:

- 2 Virginia-class attack submarines in FY27
- 10 across the FYDP
- $62.9 billion investment

The industrial challenge here is in focus. The report stresses workforce growth, distributed production, supplier expansion, and digital manufacturing reforms to hit the target production rate of one Columbia and two Virginias annually.

Aircraft Carriers:

No Retreat from Big Deck Power

Despite years of debate over carrier survivability in a missile-saturated battlespace, the aircraft carrier remains central. The plan includes:

- $22.3 billion across FYDP
- Acceleration of CVN 82 from FY30 to FY29
- Advance procurement for CVN 82 and CVN 83
- Continued construction of CVN 80 and CVN 81

The Navy's position remains unchanged: aircraft carriers are still the centerpiece of global power projection.

Amphibious Forces:

Reinvestment with a New Shape

The amphibious fleet receives some of the most aggressive recapitalization in the plan. Across FY27-FY31, the Navy proposes the following, which reflects both legacy expeditionary requirements and newer distributed littoral warfare concepts

- 5 LPDs
- 2 LHAs
- 23 Medium Landing Ships (LSMs)

LHA and LPD

Traditional amphibious assault and transport dock ships remain foundational to ARG/MEU operations. The report reaffirms the congressionally mandated minimum of 31 amphibious warfare ships.

Medium Landing Ship

The LSM is arguably the most operationally transformative amphibious investment. Smaller, more numerous, and intended for distributed operations, the platform supports Marine Corps force design concepts built around littoral maneuver and expeditionary mobility. For shipbuilders, the scale is significant: 23 hulls planned across the FYDP.

Logistics and Auxiliary Ships

Warships dominate headlines, but logistics support is the critical backbone to any enduring mission. To that end, the Navy plans $15 billion across FYDP for auxiliary recapitalization.

Planned procurement includes:

- 7 John Lewis-class T-AO oilers
- 7 strategic sealift ships
- 2 hospital ships
- 5 ocean surveillance ships
- 1 next-generation T-AOL logistics ship

This is more than recapitalization, rather it reflects recognition that distributed naval operations across the Pacific cannot function without serious logistics modernization. Interestingly, the plan suggests some logistics enablers could initially leverage overseas shipyard construction.

Unmanned Systems: *No Longer Experimental*

One of the clearest strategic changes in the document is the formal integration of unmanned systems into fleet architecture. This is no longer concept development. It is procurement.

Medium Unmanned Surface Vessel (MUSV)

Planned procurement:

- **3 in FY27**
- **47 across FYDP**
- **$3.11 billion investment**

The Navy sees MUSVs as enabling distributed sensing, targeting, deception and attritable combat mass. At press time, suppliers for MUSV was shortlisted to seven. The companies selected for the MUSV Family of Systems development program are Sea Machines, Leidos, Saronic Technologies, Galliano Marine Services, PacMar Technologies, Birdon, and Huntington Ingalls Industries (HII).

Extra Large Unmanned Underwater Vehicle (XLUUV)

Planned procurement:

- **2 in FY27**
- **16 across FYDP**
- **$1.13 billion investment**

These platforms support undersea surveillance, operational flexibility, and risk transfer away from crewed platforms. The Navy's inclusion of unmanned vessels in total fleet accounting is itself a strategic declaration.

Industrial Modernization

Central to the report, and the U.S. Navy's future, its industrial assessment, as the Navy acknowledges decades of dysfunction premised on changing requirements, delayed designs cost overruns, supplier fragility and last, but certainly not least, workforce shortages. Its answer is broad reform, and key initiatives include:

- **Distributed Shipbuilding:** Today, 10% of shipbuilding work occurs at distributed sites. **The goal is 50%.**
- **AI and Digital Production:** The Navy highlights its ShipOS initiative, designed to use AI and enterprise-wide data integration to improve production visibility, reduce delays and optimize scheduling. Pilot results cited include schedule planning reduced from 160 hours to under 10 minutes; material review cut from weeks to under one hour
- **Shipyard Infrastructure:** Major investments include a $6.2B submarine industrial base; a $6.7B surface ship industrial base; a $7.2B nuclear shipbuilder productivity; and a $13.7 billion public shipyard modernization.

ENGINEERING DRIVETRAINS INSIDE HIGH-PRODUCTIVITY DREDGERS

Modern dredging vessels can comfortably compete as being one of the most mechanically demanding ships in service today. Whether configured as cutter suction dredgers or trailing suction hopper dredgers, they are required to manage extreme torque fluctuations, high power transmission, and long operating hours in harsh marine environments – all while being expected to maintain their uptime and productivity without concern.

Unlike conventional vessels, however, dredgers impose unique stresses on their drivetrains. Cutter heads striking compacted seabeds or rock, controlled engagement of high inertia centrifugal pump systems, long shaft lines, and partially or fully submerged components all work together to impose a heavy-duty cycle where overloads and shock events are more frequent. For vessel designers and operators, drivetrain reliability is inseparable from dredging performance.

A System-Level View

Within these high-capacity dredgers – which often operate at immense power levels – the drivetrain must be engineered as a fully integrated system. Typical configurations can include diesel engines or electric motors driving reduction gearboxes via pneumatic clutch and flexible coupling combinations, which in turn transmit power through heavy-duty driveshafts and high-capacity couplings to the dredge pumps or cutter heads.

Because of this integration, each component plays a critical role in absorbing shock loads, managing misalignment, and protecting its neighboring equipment. Consequently, failures rarely stem from a single part operating in isolation; they arise when drivetrain elements are improperly matched to the application or to each other. As a result, successful dredging drive powertrains depend as much on application engineering and integration as on the components themselves. Wichita Clutch dredging clutches are packaged with dedicated electro-pneumatic controls to optimize the clutch function, capacity, and overload protection in such systems.

Managing Energy, Shock, and Alignment

For each drivetrain in dredging vessels, couplings, clutches, and shafting must work together as a single energy-management system to get the best performance possible.

Both elastic and heavy-duty gear couplings are required to effectively transmit higher torque while accommodating for misalignment, long shaft spans, and in some cases exposure to the elements. On cutter suction dredgers especially, power often extends beyond the engine room, with shaft sections spinning five to six meters down the line to the cutter head itself. These underwater couplings may operate partially or fully submerged, demanding specialized sealing, corrosion-resistant materials, and surface treatments to prevent wear and water ingress while maintaining compact envelopes.

In these cutter drive positions that frequently encounter torque spikes paired with minimal space for operation, gear couplings like the Jaure MTG-HD-NT designs are commonly used. The nitride-treated gear teeth and compact geometry allow extremely high torque transmission while maintaining durability under cyclic loads, making them particularly ideal for these applications.

At the same time, clutches play an equally critical role. On cutter head drives, high-energy clutches are required to act as mechanical fuses – absorbing sudden torque spikes when the cutter encounters hard material, allowing controlled slip

or disconnection as required to prevent damage to the electric motor, gearbox, or other critical drivetrain components.

On high capacity or high inertia centrifugal dredge pump drives, pneumatic clutches enable controlled engagement to assist in the management of the engine loads during start up and additionally act to save critical drivetrain components by disengaging in the event of a pump blocked or excessive power spikes during operational dredging. As part of the clutch coupling supply package, a wide range of electro-pneumatic controls take care of the overload protection and general remote operation requirements of such demanding applications.

Increasing engine outputs, faster running speeds, higher inertias, and longer slip durations have consistently been raising performance expectations for both clutches – through peak heat loading and wear resilience – and couplings. Wichita Clutch 'MSV' model clutches increasingly utilize sintered metal linings to address the extreme interface temperatures encountered. Due to these specific considerations, these components are rarely selected from a catalog. Submerged couplings and ladder shaft solutions are almost always engineered to order, and dredging clutches are typically bespoke – in many cases being unique to a singular vessel.

Brands such as CENTA, Jaure, Stromag, and Wichita Clutch – part of Regal Rexnord's marine portfolio – bring decades of experience in addressing these exact challenges particularly in cutter drive and pump drive applications where shock loads, misalignment, and high service factors must be accounted for simultaneously.

Custom Engineering

Because of the unique challenges brought on through dredging, customization is not a premium option – it is the standard operating procedure in designing a vessel. Owners and OEMs do not approach suppliers asking for a specific model number; they present their application requirements and needs early on. Power ratings, operating speeds, service factors, environmental exposure, and spatial constraints all help inform the best solution.

The result is an engineered package that may never be duplicated elsewhere. For suppliers operating in this space, credibility depends on a specialist engineering team that has a deep understanding of these applications and a proven track record of solving technically demanding problems.

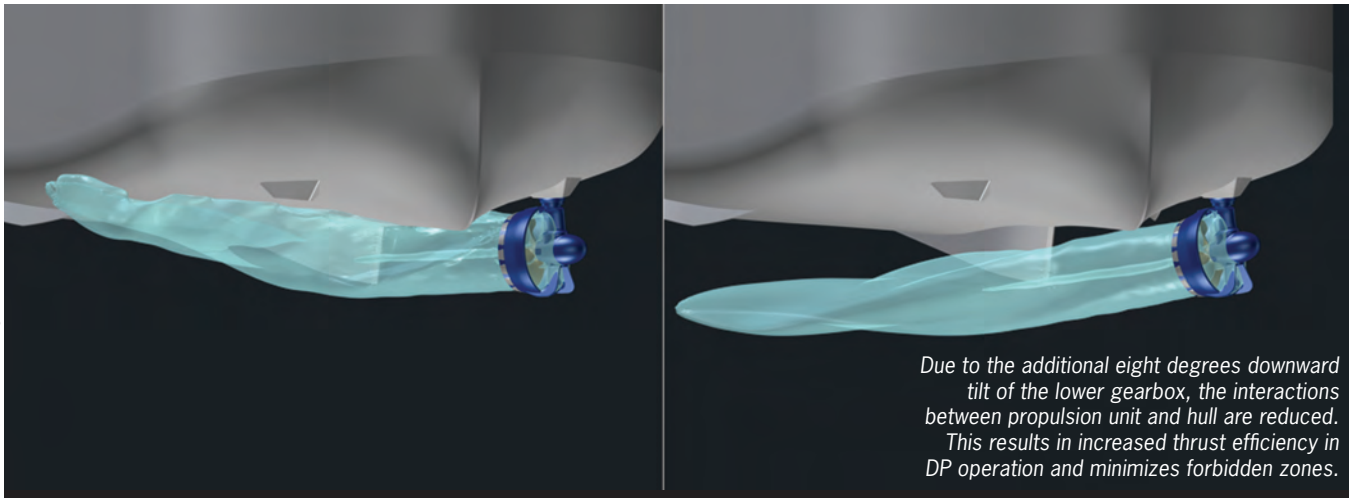
These projects rarely involve a single decision-maker or a single supplier for that matter. For cutter drive couplings in particular, gearbox manufacturers and drivetrain specialists frequently collaborate with coupling suppliers early in the design process to ensure torque capacity, misalignment tolerance, lubrication strategy, and material selection are properly matched to the dredging duty cycle. Gearbox OEMs, shipyards, regional regulations, and owner-operators each play a role in influencing component selection, which can often be shaped by long-standing preferences and fleet standardization strategies. In many cases, coupling brands specified by operators fall outside a single corporate portfolio, and global service availability remains an important and decisive factor.

Successful drivetrain suppliers recognize this ecosystem reality.

Supporting Today's Fleets

While electrification is influencing new dredger concepts, the world's most productive dredging vessels today remain predominantly diesel-driven. Operators continue to push existing architectures to new heights with higher expectations through more demanding duty cycles, creating ongoing demand for robust, high-performance drivetrain solutions capable of withstanding repeated overload events without sacrificing availability.

It's in this context that experience matters and expertise comes into play. Dredging remains one of the most demanding and innovative grounds for marine power transmission, where bespoke engineering, considerate integration, and long-term reliability are essential. Suppliers who understand the entire drivetrain – from engine to cutter head – play a key role in enabling safer, more productive dredging operations worldwide.



All images courtesy Schottel

Due to the additional eight degrees downward tilt of the lower gearbox, the interactions between propulsion unit and hull are reduced. This results in increased thrust efficiency in DP operation and minimizes forbidden zones.

SCHOTTEL SRP-D: DP-OPTIMIZED RUDDER PROPELLER FOR OFFSHORE OPS

To ensure that wind turbines at sea operate safely, regular and effective maintenance is essential. Service operation vessels (SOVs) are used to secure this, while providing the crew on board with comfortable accommodation during multi-day operations. They are often equipped with motion-compensated gangways that allow safe crossing between the ship and the offshore platform. This places particular requirements on the propulsion systems: Not only do they have to maintain an exact position for hours on end, but it is also necessary to maneuver the vessel quickly and precisely, even in in extreme weather conditions. At the same time, decarbonization targets in the shipping industry are leading to increasing demands for emissions reduction and energy efficiency.

High Dynamic Thrust Allocation

The German propulsion expert Schottel is meeting these growing requirements in the offshore sector with a new rudder propeller optimized for DP use. The SRP-D ("Dynamic") is a further improved variant for highly demanding DP operations in service operation vessels. The thruster is marked by an additional eight-degree tilt of the lower gearbox and improved propeller acceleration/deceleration times. In combination with a high-speed azimuth steering system with reinforced gear components, the SRP-D enables faster thrust allocation than conventional rudder propellers. Thanks to the shorter response times, it is possible to react faster and in a more targeted manner to external forces such as wind and currents, thus achieving a higher positional accuracy of the vessel.

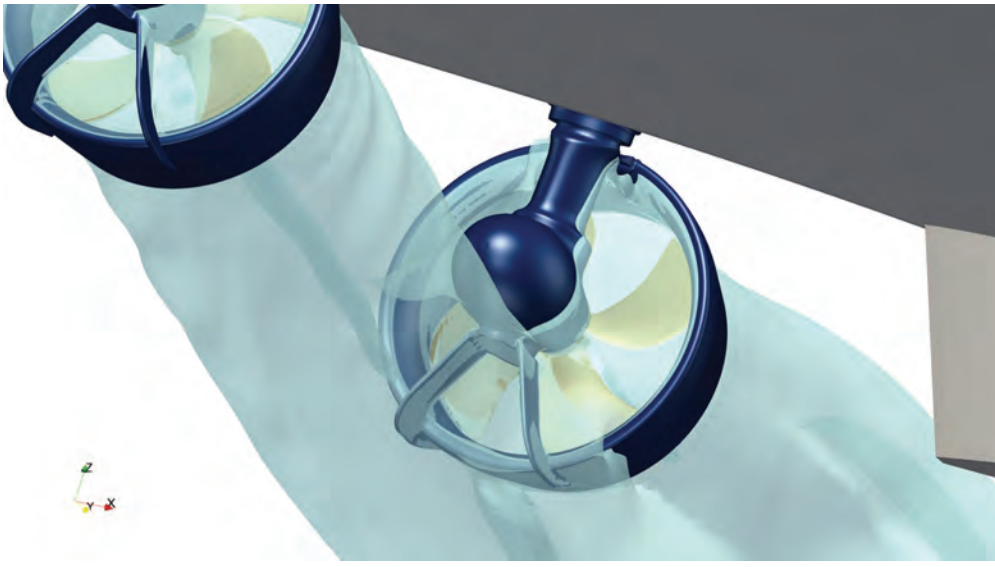
In addition, the thruster is characterized by a vertically integrated electric drive motor (LE-Drive) which offers a number of significant advantages: the elimination of the upper gearbox increases mechanical efficiency, reduces fuel consumption and also minimizes vibration and noise. In terms of space savings, it scores with a lower installation height and minimal space requirements, as the L-drive does not require a separately arranged motor including its foundation.

Reduced DP Footprint & Fuel Savings

The dynamic properties of the SRP-D have been confirmed several times by external experts. A study examined the effects of thruster response on DP positioning. The simulation was performed on the numerical model of a real Service Operation Vessel (SOV) equipped with Schottel propulsion systems. Its position-holding capabilities were examined under extreme weather conditions: high winds, strong currents and effective wave heights of 2.5m and 3.2. The results of the extensive simulations at DNV showed a significantly improved positioning accuracy thus reducing the overall DP footprint. This permits successful gangway landing operations even in rougher conditions, thus increasing the operational window of the vessel throughout the year. Furthermore, the implemented optimizations are expected to result in additional fuel savings: Thanks to the faster response time of the propulsion, the ves-

SRP-D with a propeller shaft with an eight-degree tilt.

The 98-degree variant induced lower losses at the other thruster than the 90-degree variant and therefore enabled a higher remaining force during DP.



sel can be quickly held in position with only minor corrections being necessary. This prevents major corrections in position having to be made which would require more power.

98-Degree Tilted Propeller Shaft

Another independent study focused particularly on propulsion efficiency during thruster interactions. The research was carried out on a model of a CSOV equipped with a Schottel SRP-D 98-degree thruster on starboard and a regular 90-degree thruster on portside. The first part of the study measured the interactions between propulsion unit and hull. It was found that the additional eight-degree downward tilt of the SRP-D propeller shaft could significantly reduce thrust losses, both for azimuth variations and thrust variations. For example, CSOVs with 98-degree thrusters experience only 10 percent thrust losses in transverse direction, compared to 35 percent with 90-degree thrusters. The study showed that a key factor for the improved system performance is a reduced Coandă effect with the SRP-D. The second part of the research focused on propeller flow interactions. In this case, the additional eight-degree downward tilt is also beneficial: While 50 percent losses are observed when the 90-degree thruster is blowing the wake into the second thruster (in-line thrust losses), only 20 percent thrust losses occur with the 98-degree thruster, which therefore enabled a higher remaining force during DP.

Thorsten Tillack, head of hydrodynamics and propeller design at Schottel, summarizes the resulting advantages: "Overall, the SRP-D significantly optimizes thrust yield and thrust distribution, since thruster-hull- and thruster-thruster-interactions are minimized. Consequently, the forbidden zones of the thrusters may be reduced, which leads to an additional increase of the DP performance for the vessel. Furthermore, the optimized thrust output is expected to result in fuel savings. As a result, SOVs operate much more efficiently, extending their operating time throughout the year."

NEW GULF COAST SHIPYARD SPORTS 660-TON MARINE TRAVELIFT

Taylor Marine Construction, Inc. announced the start-up of Taylor Marine Shipyard, a new Gulf Coast commercial vessel repair and haul-out facility positioned on Dickinson Bayou, immediately adjacent to the Houston Ship Channel near Lights 45 and 46. The shipyard is scheduled to place its 660-ton Marine Travelift into full commercial service in August 2026. The Travelift dramatically expands heavy marine repair and maintenance capability along the Gulf Coast and throughout the inland marine industry.

"Our vision is to create a first-class Gulf Coast shipyard focused on responsiveness, safety, and heavy marine capability," said Julius Taylor, President of Taylor Marine Construction, Inc. "The addition of this 660-ton Travelift represents a major investment in Gulf Coast marine infrastructure and provides a unique capability in Texas for hauling larger commercial barges and vessels that previously had very limited repair options in the region."

The 660-ton lift system hauls commercial vessels and barges up to 54 feet wide, providing a heavy-haul capability for the Texas market. In addition to the Travelift operation, Taylor Marine Shipyard currently maintains the capability to haul out barges up to 60 feet wide by 180 feet long using a launch bag system, allowing the yard to support a broad range of inland and coastal marine equipment.

The facility provides operators with convenient access while remaining sheltered within Dickinson Bayou. Current navigational limitations to the facility are approximately 12 ft. of draft during summer conditions and approximately 10 ft. of draft during strong north wind conditions.

Taylor Marine Shipyard is designed to support both planned maintenance and emergency vessel repair operations for inland barge operators, dredging contractors, marine transportation companies, construction fleets, and government operators throughout the Gulf Coast region.

The facility's services will include:

- Commercial vessel and barge haul-outs
- Hull inspections and surveys
- Structural steel repairs and welding
- Steel fitting and fabrication
- Hull plating crop-out and replacement
- Vessel framing and structural reconstruction
- Engine alignments
- Propeller change-outs
- Rudder change-outs
- Federal inspections and certifications
- Blasting and coating services per owner or Taylor Marine specifications
- Anodes and coatings
- Fleet maintenance programs
- Emergency drydock and repair support

www.TaylorMarineConstruction.com

Path Robotic's Rove: Mobile Robotic Welding

Path Robotics

Path Robotics launched Rove, a mobile robotic welding system that pairs the company's Obsidian physical AI model with a quadruped robot. The launch marks an expansion for Path Robotics – where Obsidian already delivers autonomous, adaptive welding inside fixed cells, Rove extends that capability to the field, bringing intelligent welding to the part rather than the part to the workpiece. Legged robots have long been considered too unstable for precision welding. Rove changes that narrative. Obsidian empowers Rove with the perception and adaptability needed to operate in high-variability environments, like shipbuilding.Saronic Technologies is one of the first early adopters to evaluate the system, integrating Rove's intelligent mobile welding into its physical AI-powered shipbuilding operations in Franklin, Louisiana.

Rossi Expands its Planetary Range with EP Winch

With EP Winch, Rossi strengthens its offering in the Marine, Construction and Mining sectors.

Rossi S.p.A., an international company headquartered in Modena and one of the world's leading groups in the production of gearboxes, gearmotors and electric motors, presents the EP Winch, the new planetary gearbox with rotating housing.

Rossi

The new EP Winch expands the range dedicated to planetary gearboxes, a product that has characterized Rossi's experience and production capacity for decades. "With EP Winch," says Davide Ferrari, R&D Manager Planetary Gearboxes and deputy CTO, "we are expanding our range by entering strategic sectors with a very clear approach: not simply adding a product to the range, but making our Know-how available to customers and studying solutions capable of better integrating into their applications and responding to their needs.

The rotating housing that characterizes EP Winch allows the gearbox to be encased in the drum, so as to minimize overall dimensions. This is a particularly attractive solution, as well as featuring an elegant design, for the Marine, Construction and Mining sectors, where available space is often a decisive design constraint.

Car Carrier Elder Leader Trials Autonomous Nav System

NYK

NYK-operated car carrier *Elder Leader*, which is equipped with an autonomous navigation system, made its first call at the port of Singapore, and NYK, together with the NYK Group company MTI Co., Ltd. and the Maritime and Port Authority of Singapore (MPA), conducted a demonstration trial to verify the interoperability between the vessel's autonomous navigation system and the port systems. The vessel is a next-generation car carrier equipped with marine DX technologies, including an advanced autonomous navigation system, a large-motion mitigation system, and a comprehensive onboard Wi-Fi network covering the entire vessel. The vessel also adopts a decarbonized design utilizing liquefied natural gas as fuel, which is expected to reduce carbon dioxide emissions. In 2024, NYK signed a MOU with MPA to promote decarbonization, digitalization, and human resource development in the maritime sector. The present demonstration trial was conducted in accordance with this MOU and under strict safety management, following a prior risk assessment, with the ship master, ship's bridge team, and a pilot in attendance. Remote pilotage was limited to navigation through the channel and fairways only.

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In the Shipyard

From Design to Delivery

Estonian State Fleet Orders Ice-Class Hybrid-Electric Ferry

The march toward zero-emission ferry transportation continues, and this time the momentum is coming from the Baltic.

Estonian State Fleet has signed a contract with Polish shipbuilder **CRIST S.A.** for the design and construction of what will become Estonia's first fully electric passenger ferry, a nearly €50 million investment that underscores how aggressively regional ferry operators are moving to modernize aging fleets while cutting emissions.

Set for delivery in late 2028, the 100-meter vessel will serve the critical Virtsu–Kuivastu route, a lifeline connection between mainland Estonia and its islands. For Estonia, this is more than a vessel order. It is a strategic infrastructure investment in reliability, resilience and cleaner transportation. Ferries are not optional in Estonia. They are essential links for commerce, tourism, freight movement and everyday mobility. That reality makes the design brief particularly demanding: zero-emission daily operations, year-round reliability, and the ability to perform in punishing Baltic winter conditions.

That's where this project gets interesting. Unlike many electric ferry concepts focused on shorter, temperate-water operations, Estonia's new vessel is being built for genuine northern service. The ferry will feature a 3 MWh battery system charged from shore infrastructure, enabling fully electric operations in routine service. But the design also acknowledges maritime reality: batteries alone do not solve every operational challenge.

To address that, the vessel will include biodiesel-powered generators as backup, extending range to at least 1,000 nautical miles and ensuring operational continuity during severe weather, emergencies, or when route requirements evolve.

This hybrid redundancy reflects a practical rather than ideological approach to decarbonization.

The vessel's ice-class 1B rating adds another layer of complexity. Designed to operate in ice up to 60 cm thick, the ferry will employ azimuth thrusters at both ends, delivering maneuverability and additional power for harsh winter operations.

CRIST is no stranger to technically ambitious ferry projects, having previously delivered advanced low-emission ferries for Scandinavian operators. Likewise, naval architect LMG Marin brings deep pedigree, particularly in electric and hybrid ferry design, with more than 200 ferries in its portfolio.

For shipbuilders, the contract is another indication that electrification is moving beyond demonstration projects and into mainstream procurement.

For operators, the efficiency math is compelling. Estonia says the vessel will be up to 64% more energy-efficient than the diesel-powered Regula, the current benchmark vessel in its fleet.

The economics are being helped along by public funding, of course. The total contract value is €49.93 million, supported in part by €28 million from the European Union Modernisation Fund.

Illustration by LMG Marin, courtesy Estonian State Fleet

USCGC Vincent Danz (WPC 1162)

U.S. Coast Guard photo by Petty Officer 3rd Class Logan Kaczmarek

The U.S. Coast Guard commissioned its newest Fast Response Cutter, USCGC Vincent Danz (WPC 1162), for official entry into its service fleet during a ceremony held in New York City in late May 2026. Vincent Danz is the 62nd Sentinel-class Fast Response Cutter in the service and the fourth of five FRCs to be homeported in Guam with U.S. Coast Guard Forces Micronesia/Sector Guam. The crew of the Vincent Danz will primarily serve U.S. and mutual interests in Oceania with an emphasis on the Micronesia and Melanesian sub-regions, conducting maritime security operations, combating illegal activity, supporting search and rescue missions, and strengthening partnerships with Pacific Island nations and Allies.

The cutter is a multi-mission platform. The cutter's namesake, Vincent Danz, was serving in the New York City Police Department, Emergency Services Unit, ESU Truck 3, when he responded to the World Trade Center as part of a massive emergency response and was killed when the World Trade Center collapsed. He was posthumously awarded the New York City Police Department's Medal of Honor for his heroic deeds. He was a veteran of the United States Marine Corps and joined the New York City Police Department in 1987, while continuing to serve in the U.S. Coast Guard Reserve as a Port Security Specialist 2nd Class.

The Vincent Danz will join the Myrtle Hazard (WPC 1139), Oliver Henry (WPC 1140), and Frederick Hatch (WPC 1143), all of which were commissioned in Guam. Since their 2021 commissioning, Guam's FRC crews have distinguished themselves across the region, most recently responding to the impacts of Super Typhoon Sinlaku on communities in the Marianas.

The U.S. Coast Guard ordered a series of new FRCs to replace the 1980s-era Island-class 110-foot patrol boats. Using the $25 billion provided by the historic Fiscal Year 2025 budget reconciliation, which includes $1 billion for additional FRCs, the Coast Guard has already ordered over $13 billion in new fleet assets and capabilities.

DRIFT's Energy-Harvesting Vessel Concept Earns AIP

RINA awarded an Approval in Principle (AiP) to DRIFT Energy for a novel vessel concept designed not simply to transport cargo, but to generate and deliver clean energy at sea. The AiP marks what DRIFT claims is the first such class recognition for an energy-harvesting ship concept, advancing the UK startup's plans to develop what it describes as the world's first net-positive vessel.

Bath, England-based DRIFT Energy has developed a vessel design that uses deep-ocean wind resources to generate energy while underway. The concept combines hydro-kinetic turbines mounted beneath the hull with onboard electrolysis systems that convert generated electricity into green hydrogen for storage and later delivery ashore. The design effectively turns the vessel into a mobile offshore renewable energy platform, with the added capability of transporting that stored energy to ports or remote demand centers.

From a vessel design perspective, the concept breaks with traditional ship classifications, requiring evaluation not just as a marine transport asset, but as an integrated energy generation and storage system.

RINA's AiP indicates that, at least at the conceptual level, the design can meet safety expectations comparable to established marine standards while addressing the unique technical challenges associated with hydrogen production and storage at sea.

Image courtesy DRIFT Energy

DRIFT says its proprietary AI-enabled routing platform, dubbed GOLDILOCKS, is central to the vessel's commercial viability. The software is designed to identify and follow optimal weather systems, maximizing time spent in favorable wind conditions and improving the vessel's renewable energy generation potential.

The company sees potential applications in markets where grid infrastructure is limited or unreliable, particularly for island nations, coastal communities, ports, and industrial users seeking alternative clean energy supply options.

DRIFT was founded in 2021 and is targeting launch of its first vessel in 2027. The company says it has an orderbook exceeding 30 vessels, though details on customers and vessel specifications have not been disclosed.

MISC Expands LNG Fleet: *Seri Dian & Seri Dayang*

MISC Group expanded its LNG fleet with the addition of two new 174,000-cubic-meter LNG carriers, Seri Dian and Seri Dayang, strengthening its long-running relationship with **SeaRiver Maritime, the ExxonMobil subsidiary** that charters the vessels. The pair were named on May 7, 2026, and were built by South Korea's **Hanwha Ocean**. Both ships incorporate energy-efficiency and digital operational technologies aimed at improving performance and safety, including Hanwha's Intelligent Control by Exhaust Recycling (ICER) system and an upgraded cargo containment system designed to reduce boil-off gas during transport.

The vessels join MISC's LNG fleet under long-term time charter to SeaRiver Maritime, bringing the total number of MISC-operated LNG carriers working for the ExxonMobil affiliate to four. For MISC, the deliveries also mark continued growth in its core LNG shipping business. With the addition of Seri Dian and Seri Dayang, the Malaysia-based owner's LNG fleet now totals 32 vessels, reinforcing its standing among the world's larger LNG carrier operators.

Image courtesy MISC Group

The naming continues MISC's long-standing "Seri" naming convention for its LNG vessels. According to the company, Dian signifies radiant brilliance, while Dayang conveys elegance and grace. The naming ceremony was attended by representatives from ExxonMobil, SeaRiver Maritime, Hanwha Ocean, and classification society Lloyd's Register, with Hanh Nguyen serving as sponsor for both vessels.

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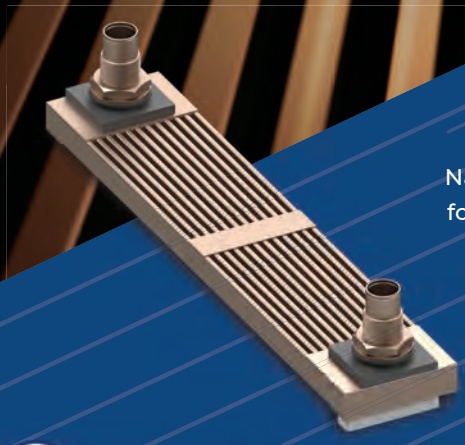

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