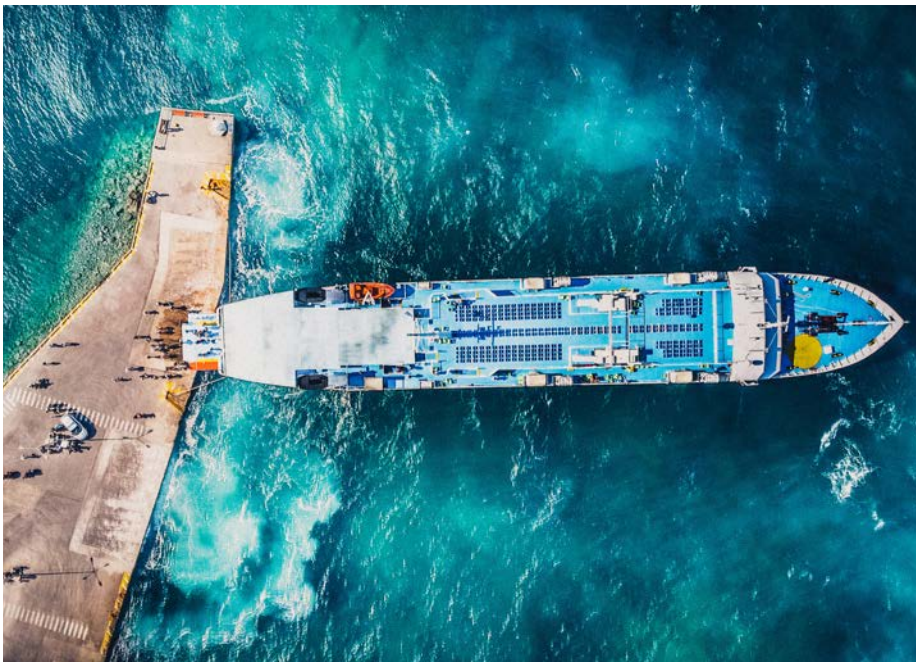




## Greek ferry sector in line for a makeover

BY PAUL BARTLETT



**A**lthough Greece's oceangoing owners are pioneers in the adoption of decarbonisation measures and energy saving devices, the same cannot be said for operators of the domestic fleet. Whereas deepsea shipowners are well ahead of the world average in carbon intensity indicator (CII) ratings, operators of the country's essential but aging ferry fleet have not invested in new tonnage.

According to statistics compiled by Naftiliaki, a shipping publication, there are some 33 companies operating about 160 ships in the Greek ferry market. About

90% of the domestic ferry fleet of vessels more than 150m in length is over 20 years old. But this is likely to change as owners gain access to new funding sources and emission regulations continue to tighten.

Some Greek owners have upgraded capacity with secondhand purchases. Piraeus-based Seajets, operator of 'the fastest ferries in Cyclades' is one example. The company runs about 25 monohull ferries and fast catamarans. In 2018, it bought the 48-knot World Champion, built by Austal in 2000 and, since mid-2019, the vessel has been operating on a route between the Cyclades islands and Piraeus.

■ *Continues on page 11*

## Amogy claims significant leap in zero carbon vessel designs

BY NICK SAVVIDES

Class society ABS and the Liberian Registry have given approval in principle to a very large ammonia carrier (VLAC) design which will incorporate zero or low emission technology designed to deliver green hydrogen on board the vessel.

Amogy is a New York-based company that designs and builds fuel cell technology. The company has designed a system that uses a catalyst to split ammonia into its constituent parts, nitrogen and hydrogen, that can then be used in a fuel cell to generate electrical energy.

The fuel cell technology will be used to power the auxiliary electrical system on the VLAC design, but Seoghoon Woo, CEO at Amogy, told Posidonia Today in an exclusive interview that he expects to scale up the technology and the ammonia infrastructure to reduce the price to competitive levels.

"The ammonia footprint is similar to conventional fuel," said Woo, "The cost of ammonia as a fuel is higher but this will be reduced as production is ramped up, currently there are 500 million tonnes of ammonia produced annually, another 10 million tonnes is under construction, for 2030, and a further 100 million tonnes is in the pre-construction phase."

■ *Continues on page 5*



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# Shipping cannot allow dark fleets to emerge again

The risks posed by unaccountable ships joined the ever-present topic of decarbonisation in high level debates at the Tradewinds Shipowners Forum at Posidonia.



**T**he maritime industry has yet to settle on a name for the dark/shadow/parallel fleet, those ships trading outside of the international regulatory system, but speakers at the Tradewinds Shipowners Forum agreed on the risks posed by that fleet, and the need for action.

Harry Conway, Chair of the Marine Environment Protection Committee (MEPC) of the International Maritime Organisation (IMO), said: "We should be concerned by dark fleet activity because of the safety of vessels and crew, as well as the protection of the marine environment. If elements within the industry circumvent the rules and regulations, we have a problem. Dark fleet vessels have no accountability because they operate under the radar; they don't respect the rules, and the IMO is taking measures and actions to tackle the issue."

Michael Parker, Global Industry Head of Shipping & Logistics at Citi, agreed that the problem is profound, and reminded the audience of the geopolitical origins of the parallel fleet.

**"I am concerned, but we have to call it out; we are at war, and until the war is over and issues are resolved, it won't be easy to find solutions. The IMO is powerless to enforce various things to improve transparency unless others are willing to take more impactful steps."**

"Sanctions are not proving to be effective, but I am optimistic that we are in an age of regulation and transparency, and climate change and data are going to drive positive change. It's really a question of enforcement. We hope peace will bring the restoration of more normal behaviour. We cannot allow the creation of shadow fleets to happen again," said Parker.

**Steering clear of the political and focusing on safety considerations around the parallel fleet, Christopher J. Wiernicki, Chairman and CEO of ABS, said: "A new age of safety, commercial compliance, and government accountabilities is here. This is a shared responsibility; the onus should not be just on the commercial side."**

"The shadow fleet is a matter of concern. It has a different perspective compared to the rest of us; they have old vessels, poor inspections, lack insurance, and are riddled with mechanical failures and oil spills, which they simply regard as collateral damage. But as we move forward, environmental regulations are going to be global shipping shapers, so as we move forward, environmental regulations will be a big part of commercial decision-making."

Wiernicki added: "Our industry is divided into three types: the leaders who are taking decisions and placing bets today; then we have the fast followers, those doing some piloting and experimenting around fuels; and we have the very many who are

actually doing nothing, waiting to see what will happen."

**Wiernicki was not alone in raising the impact of decarbonisation. Charis Plakantonaki, Chief Strategy Officer, Star Bulk Carriers Corp called for more clarity and greater incentives from regulators.**

"If the carbon cost is passed onto the supply chain and then to consumers, we are not making any progress toward shipping decarbonisation; instead, we should be using proceeds from the EU ETS to subsidise the industry in our quest to decarbonise. Other incentives could include the reduction of waiting times at ports for vessels that are more energy efficient. We need the IMO to provide more clarity on the measures they are planning and what the impact on our industry will be," said Plakantonaki.

Dr Conway concluded, "Clarity, pragmatism, uncertainty, shared responsibility – these are the key words of the industry, and these are the things we at the IMO strive to provide. The clarity the industry is craving is our priority as we study a lot of proposals on the table, each having its own implications for the transition, which is not going to be cheap. We have done comprehensive impact assessments, and come September, we will be able to make informed decisions as we try to provide the certainty the industry needs to make the right investment decisions."

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■ Continued from page 1

## Amogy claims significant leap in zero carbon vessel designs



Woo believes that ammonia can quickly reach cost parity, within four to five years. He said at today's prices the fuel is not compatible with conventional fuels, but with carbon abatement measures, such as

FuelEU, "it will be much cheaper."

According to Woo, Amogy has already teamed up with North Sea Container Line (NCL) and Hanwha Ocean to develop a 300 teu vessel which will include Amogy

power. The vessel will have an ammonia genset, a fuel cell, and ammonia cracking technology, with a chemical catalyst that will need replacing every five years.

The VLAC design will have a capacity of 93,000 CBM ammonia with Amogy's technology providing 1400 kW of auxiliary power, equivalent to a diesel generator.

However, Amogy is already involved in retrofitting a tugboat which will use its technology and is billed as the first vessel to use ammonia as a fuel, with the expectation that it will be operational this summer.

## Capital Gas, Erma First & Babcock sign LOI

**Capital Gas, Erma First & Babcock have signed a Letter of Intent (LoI) to install a pioneering Carbon Capture and Storage (CCS) system, CARBON FIT, on board four new liquefied carbon dioxide (LCO<sub>2</sub>) carriers.**

**D**ue for delivery by South Korean shipbuilder Hyundai Mipo Dockyard in 2026, the 22,000 cbm LCO<sub>2</sub> carriers will join the Capital Gas managed fleet as the largest of their kind ever built.

The ERMA FIRST CARBON FIT system holds Approval in Principle (AiP) from both Lloyd's Register and DNV.

It uses amine absorption technology based on a proprietary amine solvent to absorb CO<sub>2</sub> from flue gases.

The resultant mix is then heated to produce a chemical reaction that reverses the absorption, separating the CO<sub>2</sub> from the solvent. Subsequently, the released CO<sub>2</sub> is liquefied using Babcock LGE's ecoCO<sub>2</sub><sup>®</sup> system and stored on board the ship in pressurised low-temperature storage for subsequent offloading. Since the regenerated solvent can be re-used, the process creates a highly efficient regenerative loop for CCS.

Miltos Zisis, Managing Director, Capital Gas Ship Management Corp., said: "As part of our ongoing

efforts to minimise our impact on the environment, but also to actively contribute to a cleaner and more sustainable future, Capital Gas proudly became the world's first ship manager to supervise the construction of LCO<sub>2</sub> carriers.

**Now, we are taking a step further. Alongside our partners, we are developing advanced carbon capture technology to enhance the environmental sustainability of these ships."**

Neale Campbell, Managing Director, Babcock LGE, said: "The addition of onboard carbon capture to these first-of-a-kind vessels, in conjunction with our industry-defining ecoCO<sub>2</sub><sup>®</sup> system, is a significant step towards achieving the shipping industry's emissions reduction targets. The ecoCO<sub>2</sub><sup>®</sup> design concept for handling both CO<sub>2</sub> and LPG cargoes provides a flexible solution that can easily be upgraded to incorporate carbon capture and storage requirements."

Konstantinos Stampedakis, Co-Founder & Managing Director, ERMA FIRST GROUP, said: "This project is a major breakthrough not only for ERMA FIRST and our CCS technology but also for shipping's journey towards low-carbon operations. Under normal conditions, CCS systems are expected to cut vessel CO<sub>2</sub> emissions by 15% to 30%. At this specific project the CO<sub>2</sub> capture rate will exceed 70%. This will play a significant role in helping Capital Gas to achieve its decarbonisation objectives but also to have the first almost carbon neutral vessels".

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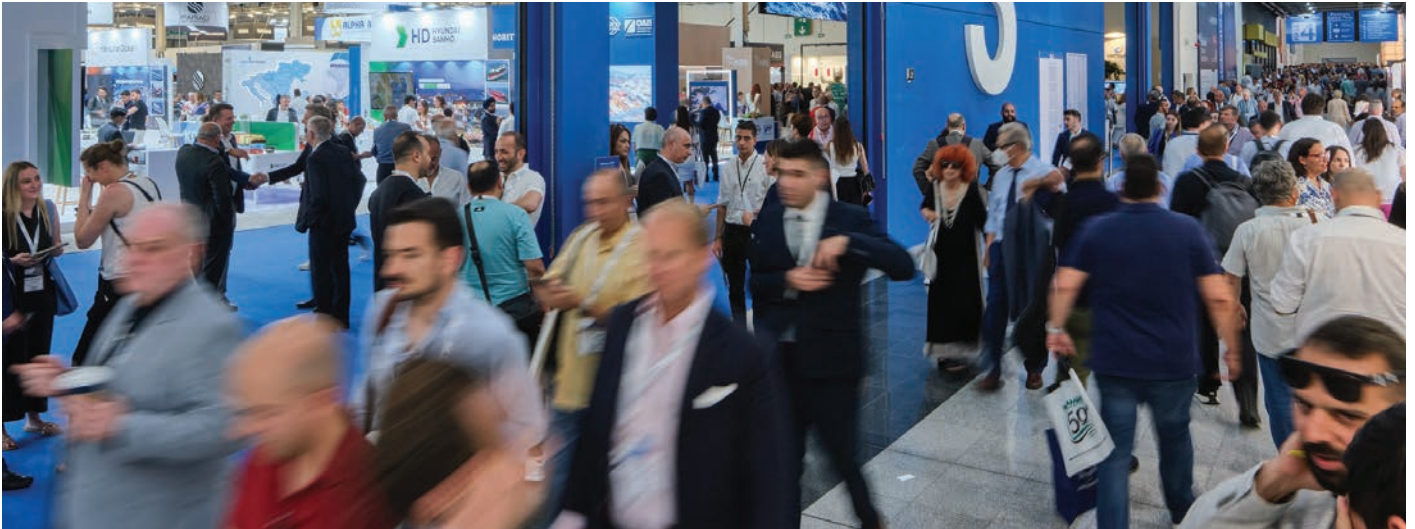


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# Ship Registries Flag Innovations

Fifteen ship registries from across the globe are participating in Posidonia 2024 to showcase their innovations and competitive strategies.



■ Ship registries at Posidonia aim to navigate the complex and evolving landscape of the international shipping industry, addressing challenges related to sanctions, financial pressures, safety, and new environmental regulations.

“Sanctions compliance, fleet monitoring, and enforcement of all the IMO instruments are the main challenges we are currently facing,” said Gianluca Tucci, General Director of the San Marino Registry, a brand-new player which chose Posidonia 2024 as the launching pad for its merchant vessel offering.

Over the past few years, increased sanctions have placed a growing burden on ship registries. Flags and classification societies have responded by suspending and removing more ships and operators from their ranks.

To prevent “flag hopping” and other deceitful practices, leading international flags like the Panama Maritime Authority, the Liberian Registry, and the Marshall Islands Registry have agreements for the exchange of information.

Furthermore, shifting markets and supply chains have increased financial pressures on ship operators. As a result, there has been a rise in abandonments and lax compliance with safety regulations.

“The dynamic nature of ship registration also renders the necessity to upgrade, improve, and respond to changing demands of the market a necessity for survival,” said Dr. Ivan Tabone, Registrar

General, Malta Ship Registry.

In addition, some advocate eliminating the concept of ship nationality altogether, which would shift the responsibility of supervision and enforcement away from flag registries.

To stay ahead of developments and improve their competitiveness, flag registries are introducing various initiatives in the areas of digitalisation and blockchain to streamline processes, improve transparency, and enhance security.

“We must stress the use of new technologies by applying digitalised services in addition to implementing the best working conditions for all seafarers without forgetting the environment and the shift to decarbonise shipping,” said Richard Medawar, Deputy General Ships Registrar of Guinea Bissau International. The Registry is making its Posidonia debut this year as an exhibitor to promote its brand and services and communicate its added values and strengths to a broader audience of marine industry professionals and network with existing and potential new customers.

The digital transformation wave is spearheading flag registries’ efforts to reduce red tape as an enabler for a more seamless vessel registration process. At Posidonia 2024, the Greek flag launched a new application for the digitisation of the application for registration and granting of a document of nationality of Greek seagoing vessels, [niologio.gov.gr](http://niologio.gov.gr). The new application, which is a perennial request of the shipping community, reduces bureaucracy and speeds up registration procedures, strengthening the competitiveness of the Greek flag. Thanks to the digitisation of the entire process,

the ship’s nationality document, which carries a unique QR Code for immediate verification of its authenticity by any competent authority around the world, is automatically generated and granted directly to the ship-owning company.

Flag registries are also focusing on green issues, emphasising their environmental compliance and sustainability strategies by offering incentives for eco-friendly practices, such as reduced fees for vessels meeting emission standards or using alternative fuels.

For example, the British Virgin Islands Registry (BVI), better known for its yachting offering, is developing a comprehensive policy spanning various ministries to incentivise green shipping practices, benefiting ship registration, port calls, and beyond. The registry is strategically expanding its global presence with plans to establish offices in the Mediterranean, Dubai, Singapore, and Florida and is eager to forge partnerships with the green propulsion technology industry, aligning with its commitment to fostering cleaner seas through mutually beneficial associations. John Samuel, Director, said: “We return to Posidonia for the ninth time this summer to meet potential clients from the merchant marine community and promote the flag’s commitment to green shipping.”

■ Continued on next page



International cooperation between them, port authorities, and other maritime bodies is also another area of focus for flag registries, as part of their contribution to a more cohesive and competitive global maritime ecosystem.

“Although cost matters are always at the forefront of customers’ consideration, flag selection goes well beyond that,” added Dr. Ivan Tabone. “One of the major challenges of all major international ship registries is the ability to strike the right balance between addressing the needs of our customers without compromising the quality of service provided and compliance with the applicable regulations and standards.”

On the issue of ship registration fees and the annual tonnage charge (ATC), the Hong Kong Ship Registry (HKSR) is offering waivers for the first year of ship registration for applicable ships newly registered with HKSR.

“To enhance the competitiveness of HKSR and provide greater facilitation for shipowners, we will continue to enhance our ship registration services and suitably employ digitalisation to facilitate the process of ship registration,” said S.F. Wong, Director of Marine. “Our policy as a special administrative region is not to seek any profit from ship registration fees, and most services are provided on a cost-recovery basis.”

*The following flag registries are exhibiting at this year’s Posidonia: Bahamas Maritime Authority, Barbados Maritime Ship Registry, Cayman Registry, Croatian Register of Shipping, Cyprus Shipping Deputy Ministry, Hong Kong Shipping Registry, International Merchant Marine Registry of Belize (IMMARBE), IRI / The Marshall Islands Registry, Liberian Registry, Maritime Malta, Guinea Bissau, Palau International Ship Registry, Panama Maritime Authority, San Marino Ship Register, Sierra Leone Maritime Administration, St. Kitts & Nevis International Ship Registry, and Virgin Islands Shipping Registry.*

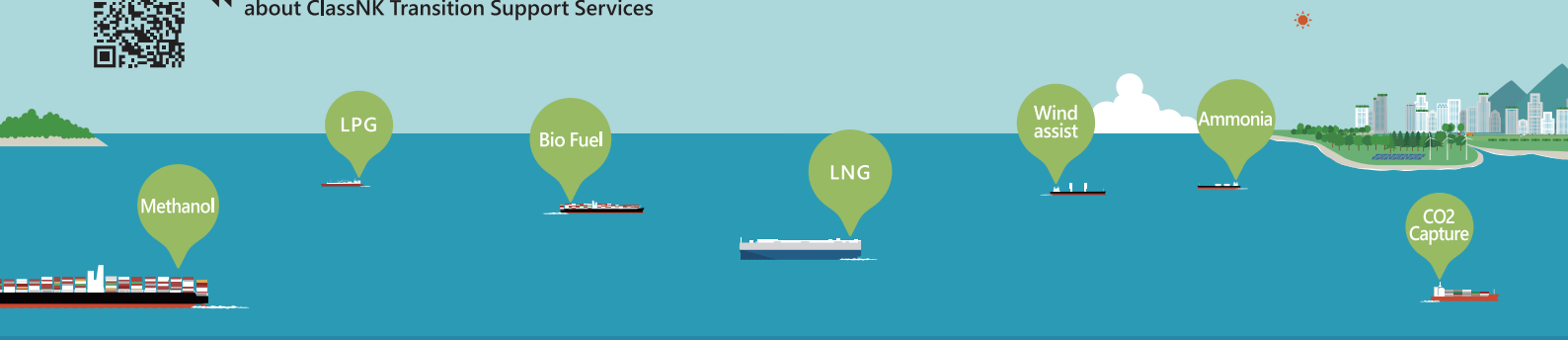
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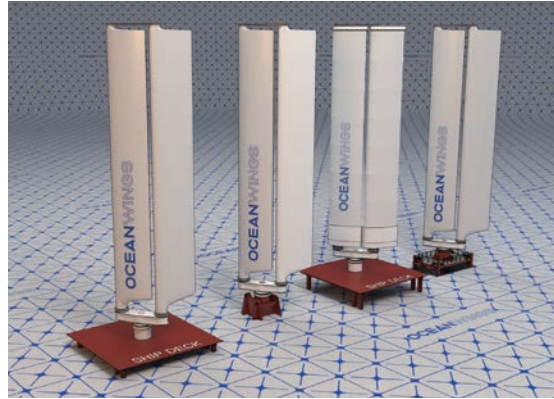


# AYRO rebrands as OceanWings

**OceanWings is debuting its new identity at Posidonia alongside the launch of an extended portfolio of its wingsails.**

■ OceanWings said its rebranding follows a successful six-year design, manufacturing and commercialisation phase, bookended in 2023 by the launch and subsequent commercial operations of the RORO cargo ship *Canopée*, equipped with 4 fuel saving OceanWings Wingsails.

The company's new product range will make the benefits confirmed by fuel savings measured in operations on *Canopée* available to most shipowners, across multiple vessel sizes and segments including tankers, bulkers, PCTC, and cruise ships.



The OceanWings product range also features a "safety-by-design" flag mode, automatically protecting the OceanWings and the vessel when wind or sea conditions exceed specific thresholds. OceanWings now also offers critical configuration options such as a tilt mechanism, to address air draft requirements, and an elevator mechanism specially designed for container ships to comply with their port operation constraints while minimising the impact on container capacity. OceanWings says it remains the only solution on the market offering a lowerable / reefable design,

which is a critical feature for vessels where tilting is not an option.

"The entire OceanWings product range is based on the same aerodynamic design that is now proven to deliver class-leading payback to shipowners, while adding more flexibility and integration options for newbuilds and retrofit," said OceanWings CEO Emmanuel Schalit. "In light of a rapidly expanding WASP market, we have also focused on improving our design and processes to be able to deliver faster and with consistent quality to our customers around the world."

The semi-rigid and new rigid OceanWings share the same unique 'two flap variable camber' design – including the Wingsail base and boom – which has been proven to deliver industry-leading fuel savings over most operational scenarios and environmental conditions.



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# ABS Wavesight™ unveils MDF software

**Real-time, data-driven insights supporting regulatory compliance; improving fleet efficiency; reducing operational costs and meeting fleet decarbonisation goals are key benefits of ABS Wavesight My Digital Fleet (MDF) software which was unveiled during Posidonia.**

■ **MDF introduces groundbreaking features aimed at empowering maritime operators to optimise performance, improve energy efficiency and streamline compliance with decarbonisation requirements from both the International Maritime Organization (IMO) and the European Union.**

"With its deeply rooted connection to ABS, an organisation grounded in safety, regulation and compliance, My Digital Fleet brings performance and compliance together all in one platform.

*Today's announcement reinforces our commitment to remaining at the forefront of regulatory compliance while providing the industry with the solutions they need to optimise performance and meet decarbonisation goals," said Christopher J. Wiernicki, ABS Chairman and CEO and Chairman of ABS Affiliated Companies.*

One of the standout features of MDF is its EU ETS compliance support, enabling users to accurately track CO2 emissions by vessel and across entire fleets. This functionality provides invaluable assistance in meeting regulatory requirements and facilitates more precise reporting of EU allowances, driving accuracy for commercial use and seamless compliance with emissions regulations.

"We are excited to unveil the latest My Digital Fleet software, which represents a significant milestone in our commitment to revolutionising vessel performance monitoring and compliance support," said Staci Satterwhite, ABS Wavesight CEO.

"With its innovative features and modernised architecture, MDF empowers shipowners, operators and charterers to optimise performance, reduce fuel consumption, and gain compliance with regulatory requirements, setting a new standard for addressing risk within vessel performance software in the maritime industry."

**Join the ABS team at Stand: Hall 3. 101**



■ *Continued from page 1*

## Greek ferry sector in line for a makeover

Part of the challenge facing domestic operators is the seasonality of the business. In the summer months, ships are jampacked with tourists and island hoppers. But the vessels also fulfil the essential year-round task of keeping island communities supplied and providing transport links with the mainland.

Piraeus-based XRTC Business Consultants, experts on the ferry sector, revealed recently that the last time the Greek ferry fleet was upgraded was in the early 2000s. Limited access to finance has blocked contracts for new ships. However, the consultants pointed out that tightening environmental regulations mean that the situation must change.

There are positive signs, however. Talks have been held recently in Brussels regarding financial assistance for Greece's ferry sector. The renewal of the aging ferry fleet with a new generation of 'green' ships is now on the agenda, according to Greek Shipping and Island Policy Minister, Christos Stylianides, when he addressed members of the Greek Shipowners Association for Passenger Ships recently.

"We already have the first positive messages and negotiations are continuing. We have been given the opportunity to utilise for the

first time the Development Fund, the National Strategic Reference Framework and other financial tools of the Transition Fund and the Decarbonisation Fund, as well as anything else that might arise," he told ferry owners.

*Stylianides, who was previously an EU commissioner, has already succeeded in allocating EUR 580 million in funds from the NSFR and the Recovery and Resilience Fund. The money will be used for ferry fleet upgrades as well as improvements to port and terminal infrastructure.*

Meanwhile, the recent relaunch of Elefsis Shipyards, owned by ONEX, is likely to announce a new ferry order within the coming days. The yard is preparing to build a 100m dual-fuelled methanol ferry, its first new ship in nearly two decades. The vessel is to be built for the country's largest ferry operator, Attica, and is part of a EUR 1 billion framework agreed between the ferry owner and ONEX.

# Fuel for thought

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# Helmepa's role as green watchdog for blue industry

**HELMEPA – the Hellenic Maritime Protection Association – remains at the forefront of Greek shipping's resolve to keep its vital seas clean**

At the seminar 'Shipping Resilience to Climate Change' – HELMEPA's main theme, Christos Stylianides, Greece's merchant marine minister, admitted that 'very demanding work' lies ahead.

It is in the vastly popular island-hopping business that Stylianides urged swifter action in the greening of the Greek coastal fleet. "We must concentrate, or we will lose the ability to run green ships to our islands," he warned, alluding to a mainstay of the vital Greek tourism market, itself a mainstay of the whole national economy. More efficient systems and fuels would make the present unprofitable routes to some of the smaller and more remote islands more economical, he said, adding

that Greece was committed to opening twelve cold-ironing ports by 2030.

Stylianides said there was no room for complacency. "This is definitely not business as usual," he said. "We all have to think out of the box."

Theodoros Skylakakis, Greece's minister for energy and the environment, warned that some of the Greek Islands lack fresh water, one result of climate change that has jump-started the present Helmepa campaign. Providing fresh water through desalination is one solution, another is to reduce carbon

dioxide in the environment 'with the least economic and social cost.'



## HMM, Avikus & ABS partner up

**HMM, South Korea's largest shipping company, has teamed up with Avikus, a subsidiary of HD Hyundai specialising in autonomous navigation solutions, to implement and verify the fuel-saving effects of Avikus's 'HiNAS Control' autonomous navigation solution.**

In a move towards operating an eco-friendly fleet, HMM will install HiNAS Control on two vessels—a 16K teu-class container ship and a 300,000 dwt VLCC vessel—and will collaborate with ABS to verify its effectiveness.

Earlier this year, Avikus reported a fuel-saving effect of over 10% on a VLOC vessel using its autonomous navigation solution. By extending the application of HiNAS Control to other vessel types, Avikus aims to validate these impressive results further.

This collaboration not only underscores the potential of autonomous navigation technology to achieve significant fuel savings but also highlights its role in supporting the global goal of '2050 NET ZERO' by reducing greenhouse gas emissions.

Looking ahead, HMM and Avikus are considering expanding the application of HiNAS Control to additional vessels if the fuel-saving effects are confirmed through this initiative, paving the way for a more sustainable and efficient maritime industry.



Take the METAVASEA survey coordinated by HELMEPA and help empower seafarers and port workers for maritime decarbonization!

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People-centred transition for Maritime Decarbonization in the East Mediterranean



# Maritime expertise is required as maritime applications fade out

BY GARY HOWARD

**Greater shipboard connectivity is reducing the need for maritime specific software packages, but the need for maritime expertise in shipboard connectivity is greater than ever, Tore Morten Olsen, Marlink President Maritime and Managing Director told Posidonia Today.**

**S**tarlink and other low earth orbit (LEO) satellite connectivity solutions have brought greater bandwidth and reduced latency to maritime operations, removing the need for software packages optimised for the previous high-latency, low-bandwidth situation onboard.

But as the standard corporate software suites like Microsoft 365 extend their reach to better-connected vessels in the global fleet, maritime connectivity expertise is critical to ensuring the smooth adoption of the office-at-sea approach to onboard operations, Marlink President Maritime Tore Morten Olsen told Posidonia Today.

“We’re moving more and more towards the standard Microsoft application landscape that people are starting to use out there, with Teams and the Office Suite. I see less and less interest in maritime-specific applications. There are some considerations related to the fact that you may be at a lower [connection] speed for a period, you need to manage that, maybe with a local cloud setup.”

As demands in the connectivity space change, Marlink is positioning itself as a network integrator and digital partner to its clients, rather than a pure connectivity provider.

“Because the market it is about integrating different networks, and then ensuring that you help your



client take advantage of the capabilities that those networks bring, that’s where we see a lot of interest,” said Olsen.

**As ship connections become more varied and bandwidth increases, cyber security is more important than ever, said Olsen.**

“In the past, we could control all the traffic because it was going through our telephones, so we had a layer of control over the data and could provide the level of security needed. Now when you have 4G, 5G, LTE, Starlink, and more, they are connecting straight to the vessel. That is creating a completely new machine in terms of how we provide protection.

“That’s where the Unified Threat Management (UTM) and Endpoint Detection & Response (EDR) become very, very important. We need to actually monitor traffic at the endpoints and detect threats,” said Olsen.

With 3,000 installations, Marlink is beginning to see patterns emerging in the way Starlink is used, where its strengths and weaknesses are, and the risks associated with its adoption.

“Now, we see that there are a lot of attempted attacks, and we stop a lot

of attacks. When you suddenly have 50 megabit available on board, you become prone to that.”

Managing that risk through technical solutions and training of people onboard is important, said Olsen, especially as the rise of fast LTE connections and LEO bring new digital threats. Marlink offers a suite of cyber security services under its various CyberGuard modules, with threat detection and endpoint security, a Security Operations Centre (SOC), remediation and response services and more.

In a few short years, Starlink has grown from obscurity in the maritime industry to a must-have connectivity enabler for crews, connecting seafarers to their families and high speed internet in their downtime.

“Uptake of LEO is now stable at around 200 vessels per month, which is very fast,” said Olsen. Meeting client expectations for immediate connection is a challenge, but lead times for a Starlink installation are short at around two weeks, he said.

Assessing the best way to integrate Starlink in the existing network, if required, is an important part of the process, said Olsen, as there are certain connections for which Starlink is not appropriate due to regulations.





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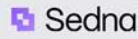
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## Shipnet & Oriani partner with Gaslog

■ Shipnet and Oriani, its representative in Greece, has partnered with Gaslog, a company renowned for its exceptional operational standards and commitment to sustainable practices.

This partnership highlights Shipnet's dedication to providing cutting-edge solutions that meet the evolving needs of the maritime industry. By combining its expertise with Gaslog, Shipnet hopes to enhance operational efficiencies and drive digital transformation surrounding dry dock management.

According to Shipnet, 'a big part of Gaslog choosing our dry-docking solution is that it has the capability to host all dry docking planning and execution activities in a single platform.'



## Panama delegation brings good news

As transits of the Panama Canal return to normal, representatives of the nation's comprehensive maritime services sector are out in force in Athens.

■ 'Panama has had a difficult year after prolonged drought increasingly limited transits of the Panama Canal in 2023, but representatives from the Panama Canal Authority (ACP) are in Greece with positive news, reassuring Greek clients of rising transit numbers and improving service.

The ACP is joined by other prominent Panamanian maritime institutions, from the world's largest ship registry to its established ship repair sector. The Panamanian delegation aims to highlight Panama's competitive advantages for investment in the maritime sector, along with the nearshoring, shipping, freight transport, and diverse services that Panama's maritime and logistics community has to offer.

Ambassador of Panama in Greece, H.E. Julie Lymberopoulos, said: "Our involvement in Posidonia 2024 is a testament to Panama's enduring commitment to the maritime sector. As the world's largest Shipping Registry, Panama is proud to support and contribute to the advancement of international shipping. This event not only highlights the impressive achievements of the Greek fleet but also underscores the collaborative spirit that drives the maritime industry forward".

Reinforcing that message, Ilya Espino de Marotta, Panama Canal Deputy Administrator, said she brings a message from Panama of reliability for the future: "Everybody has heard about the very



dry year we had, the very big drought, but now we are back to 32 transits per day, effective June 1st, hoping to get to 34 in July.

"We are also showcasing the different initiatives we take in order to be able to maintain shipping activities in an efficient manner. As a big organisation we want to impact the maritime industry, so we just finished our greenhouse inventory and we are going to set some targets in order to help the decarbonization of shipping".

Stressing the historic ties between Greece and Panama in shipping, Lino Arosemena, Ship Repair CEO, at Talleres Industriales S.A., said his company has been established for 55 years and has come to Posidonia for three decades.

"Greece is a very important country for us, for Talleres as well as for Panama. That is why we have to be here – most of our clients are from this area. This year we have a really big stand, with representatives from all industries. This is good, because it has been a difficult year for Panama, due to the drought. We need to talk to our Greek clients and explain we can get to the levels they expect from us," said Arosemena.

This year's Panama Pavilion is a joint national effort of the Export and Investment Promotion Authority (PROPANAMA), the Panama Canal Authority (ACP), the Maritime Authority of Panama (AMP) and the Embassy of Panama in Greece, accompanied by over 60 members of Panama's Maritime Chamber.

# SIRC & HEC Sign MoU

Business continued to flourish on the floor of the Metropolitan Expo Centre on the second day of Posidonia 2024, with numerous new deals and agreements as the maritime community gathered in the Greek capital, as it does every two years, for the world's largest and most prestigious shipping event.

Amidst the flurry of activity, SIRC Group, the Saudi Investment Recycling Company, wholly owned by the Saudi Public Investment Fund, signed a memorandum of understanding (MoU) with the Greek company Hellenic Environmental Centre SA (HEC) during a ceremony attended by Chairman of the Board of Directors of SIRC, Engineer Khalid Al-Salem and the Ambassador of the Custodian of the Two Holy Mosques to Greece, Dr Saad bin Abdul Rahman Al-Ammar.



The Memorandum of Understanding was signed by Eng. Ziyad Al-Sheiha, SIRC CEO, and Mr Dimitris Melissanidis, Chairman of the Board of Directors of HEC, at the Posidonia International Shipping Exhibition 2024 in Athens.

The MoU aims to strengthen SIRC's commitment to sustainability in marine management practices. It plans to create a partnership that will ultimately establish environmental treatment centres for recycling services for ships in Saudi Arabia, in a move designed to enhance the commitment to environmental sustainability and responsible waste management, as well as recycling.

The partnership will explore and establish industrial waste treatment facilities while jointly identifying and evaluating strategic locations for these facilities, considering factors such as proximity to industrial centres, transportation infrastructure, and environmental impact.

"We are seeing a significant increase in the number of business deals signed between Greek and international companies during this year's Posidonia," said Theodore Vokos, Managing Director, Posidonia Exhibitions S.A. "We expect many more similar announcements between companies from different countries until the end of the event this Friday, a testimony to the truly global nature of the shipping industry and to the international appeal of Posidonia as an ideal place for the maritime community to do business and forge partnerships".

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# KR Grants Approval to HD HHI's Next Generation K-Ammonia Storage & Powered PCTC

KR has awarded an Approval in Principle (AiP) for the Next Generation K-Ammonia Storage & Powered PCTC, developed by HD Hyundai Heavy Industries (HD HHI) with the participation of Hyundai Glovis and G-Marine Service, at Posidonia 2024

**C**urrently, to address the increasingly stringent global greenhouse gas regulations, the development of alternative fuel technologies is actively underway, and ammonia fuel technology is one of the most highly regarded in the market. However, ammonia is more toxic and corrosive compared to other alternative fuels, requiring additional safety verifications considering the fuel propulsion system design and ship operation characteristics.

The ship that received the AiP was designed by HD HHI, taking into account the characteristics of ammonia. It includes an ammonia fuel containment system, specifically designed to handle the toxicity and corrosiveness of the ammonia fuel system. KR verified the technical suitability of this system based on classification rules and domestic and international regulations. Hyundai Glovis and G-Marine Service jointly participated in the risk assessment process, enhancing the technical completeness.

Seungho JEON, Senior Executive Vice President of HD HHI, stated, "The Next Generation K-ammonia Storage & Powered PCTC developed this time applies HD HHI's market-leading eco-friendly technology. We will continue to pursue technological development to achieve carbon neutrality as a leading company in the maritime industry."

Yujin YEON, Senior Vice President of KR, said, "This AiP has laid an important foundation for the commercialisation of ammonia-fueled car carrier ship technology. Based on this, KR will work to support not only ammonia fuel propulsion technologies but also decarbonisation technologies for our customers."



 The advertisement is split into two main visual sections. The top section shows a blue sky with white clouds over a city skyline with green buildings. The bottom section shows a large whale swimming underwater in clear blue water.
 

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# Photo Gallery

Posidonia Today tasked *Tim Hills* with taking snaps during his daily walk-arounds! The experienced Seatrade Maritime sales manager came up trumps! Expect more tomorrow!



## LIST OF CONFERENCES AND SEMINARS

June 6th	Hamburg Messe und Congress	<b>SMM 2024 – Press Talk: Driving the maritime transition</b>	Posidonia Meeting Room 1	<b>10:45 - 12:30</b>	nele.brunsh@hamburg-messe.de
	Newsfront/ Naftiliaki under the auspices of MARTECMA (Marine Technical Managers Association)	<b>Greener Shipping Summit 2024 - New Technologies and Education</b>	Posidonia Conference Hall	<b>10:30-16:00</b>	natvas@otenet.gr
	American-Hellenic Chamber of Commerce (AmChamGR)/ North American Marine Environment Protection Association (NAMEPA)/ U.S. Embassy Athens	<b>"4th Trading in U.S. Waters Seminar &amp; the Shark Tank Event "Future Trends &amp; Innovations in the Maritime Sector""</b>	Posidonia Seminar Room Central	<b>10:30-16:30</b>	"v.tseritzoglou@amcham.gr executivedirector@namepa.net Maria.Georgousi@trade.gov "
	90POE	<b>Achieving Maritime Excellence Through the Adoption of Digital Technologies.</b>	Posidonia Seminar Room 1A - Sponsored by S&P Global Commodity Insights	<b>10:45-12:30</b>	posidonia@90poe.io
	Hellenic Institute of Marine Technology (HIMT)	<b>Shipping Decarbonization</b>	Posidonia Seminar Room 1B	<b>10:45-12:30</b>	info@elint.org.gr
	Hellenic Marine Equipment Manufacturers & Exporters (HEMEXPO)	<b>SEA Europe Press Conference: The European Shipbuilding Strategy</b>	Posidonia Seminar Room 2B - Sponsored by UES Marine	<b>10:45-12:30</b>	info@hemexpo.gr
	RetroFIT55 Consortium	<b>RetroFIT55 Forum 2024</b>	Posidonia Seminar Room 2A	<b>10:45-12:30</b>	alessandro.jafrati@cnr.it vzagkas@simfwd.com
	University of Piraeus	<b>Shaping Maritime Careers: University education of the future</b>	Posidonia Seminar Room 1B	<b>12:45-14:30</b>	ilagoudis@unipi.gr
	EMICERT Ltd.	<b>Challenges and Opportunities from EU's Climate Change Policies for the Shipping Industry</b>	Posidonia Seminar Room 2A	<b>12:45-14:30</b>	e.koutsouki@emicert.com
	UES Marine	<b>The Ferry Experience, Operator</b>	Posidonia Seminar Room 2B - Sponsored by UES Marine	<b>12:45-14:30</b>	bpetersen@uesint.com
	ITA - Italian Trade Agency, Athens Office Trade Promotion Office of the Italian Embass	<b>The Digitisation Process in the Maritime Sector: The Italian Experience</b>	Posidonia Seminar Room 1A - Sponsored by S&P Global Commodity Insights	<b>14:45-16:30</b>	atene@ice.it
	MAST Maritime Services S.A.	<b>Optimizing Vessel Performance with Energy Saving Technologies</b>	Posidonia Seminar Room 1B	<b>14:45-16:30</b>	info@mastms.gr
	Learning Seaman	<b>Seafarers' Mental Health and Wellbeing</b>	Posidonia Seminar Room 2A	<b>14:45-16:30</b>	info@learningseaman.com
	Fleetwork - Everything You Need to Manage Your Fleet	<b>The Cloud Shipping ERP Era is NOW</b>	Posidonia Seminar Room 2B - Sponsored by UES Marine	<b>14:45-16:30</b>	pchytiroglou@fleetwork.io
	Orca AI in cooperation with DeepSea AI	<b>AI and Connectivity: Fueling Maritime's Transformation</b>	Posidonia Seminar Room 1A - Sponsored by S&P Global Commodity Insights	<b>16:45-18:30</b>	shay.nir@orca-ai.io s.bogunovic@deepsea.ai
	June 7th	Maritime Research Institute Netherlands (MARIN)	<b>Sustainable shipping is more than alternative fuels</b>	Posidonia Seminar Room 1B	<b>16:45-18:30</b>
FORBES GREECE		<b>Forbes List: Greece's Top Shipowners - Perspectives and Challenges</b>	Posidonia Seminar Room 2A	<b>16:45-18:30</b>	pavlaki@atticamedia.gr
ABB Marine & Ports		<b>Maritime is Electrifying</b>	Posidonia Seminar Room 2B - Sponsored by UES Marine	<b>16:45-18:30</b>	antonis.asimakopoulos@gr.abb.com
Young Executives & Students (YES) Forum		<b>YES to Shipping Forum 2024</b>	Posidonia Conference Hall	<b>10:30-17:00</b>	info@yes-forum.com
ABS		<b>ABS's innovation projects</b>	Posidonia Seminar Room 1B	<b>10:45-12:30</b>	asoulioti@eagle.org
Sustainable Blue Economy Partnership		<b>Blue Economy – The key towards Mediterranean Regional Sustainability</b>	Posidonia Seminar Room 1A - Sponsored by S&P Global Commodity Insights	<b>10:45-17:00</b>	s.dimitropoulou@gsrt.gr
Samyoung Machinery Co., Ltd.		<b>Metal Casting innovation with sand 3D printing technology</b>	Posidonia Seminar Room 2A	<b>10:45-12:30</b>	kanghoon.lee@sym.co.kr
UES Marine		<b>Experience Australia</b>	Posidonia Seminar Room 2B - Sponsored by UES Marine	<b>10:45-12:30</b>	bpetersen@uesint.com
Union of Greek Shipowners		<b>UGS Press Conference</b>	Posidonia Seminar Room Central	<b>12:00-13:30</b>	posidoniapress@extrovert.gr
Dynamic Group of Companies		<b>Anchoring Maritime Resilience: Innovative Repair Strategies, Steel Surfaces Maintenance, and Efficiency Optimization</b>	Posidonia Seminar Room 1B	<b>12:45-14:30</b>	purchasing@dynamicco.com
Hellenic Logistics Association (EEL)		<b>Unlocking the potential from freight decarbonization: The role of zero emission transport modes</b>	Posidonia Seminar Room 2A	<b>12:45-14:30</b>	info@eel.gr; mbougioukas@eel.gr
Hydrus Engineering		<b>LH2CRAFT Project - Safe and Efficient Marine Transportation of Liquid Hydrogen</b>	Posidonia Seminar Room 2B - Sponsored by UES Marine	<b>12:45-14:30</b>	j.vlavianos@hydrus-eng.com
University of the Aegean, Department of Shipping Trade and Transport	<b>Blue economy and the role of multidisciplinary research in Multi-use of Space (MUSICA)</b>	Posidonia Seminar Room 1B	<b>14:45-16:30</b>	lilas@aegean.gr	
PROJECT CONNECT	<b>Enhancing Youth Employability in the Shipping Industry, from an early age</b>	Posidonia Seminar Room 2A	<b>14:45-16:30</b>	events@project-connect.gr	

# Navigating the decarbonisation maze

BY JOHN CARR

**Decarbonisation and how to attain it is the overarching theme of this year's Posidonia, and the nuts and bolts of the process came in for close scrutiny at a Wärtsilä Technical Seminar – Future Fuel and Decarbonisation Solutions.**



**One message that came through clearly was that if any one fuel is vital in coming years, it won't be necessarily of the chemical kind. 'Flexibility is the right fuel,' said Konstantinos Korfiatis, of Vessel Performance Solutions.**

But like the mythical Theseus trapped in the Minotaur's maze, the Greek shipping industry is having to navigate an unprecedented number of factors, not the least of which are technical ones. What once would have required armies of boffins armed with slide-rules now, fortunately, can be dealt with by sophisticated computer modelling and AI. But it's not, say the technical types, going to be plain sailing.

According to RINA, a complex matrix of approaches will have to followed up in

order to achieve the IMO's 2050 dream of zero emissions. A whole shipload of issues were raised at the seminar, mainly of a technical nature, designed to bring some of the more romantic anti-carbon dreamers slightly back to earth.

Without delving too deeply into the physics and chemistry of the issue, present efforts are concentrating on methods of carbon capture, both pre- and post-combustion. The aim is to scrub as much carbon as possible out of the ship's system and in the process eliminate heavy fuel oils entirely by about 2040.

**Multi-fuel engines, according to studies by Wärtsilä of Finland, will be prevalent until about the late 2030s.**

Until then LNG appears to be fuel of choice, especially for capesize, suezmax and aframax vessels, says Figosta Zhu of Wärtsilä's Chinese operation. The company has carried out detailed efficiency studies, including controllable-pitch propellers, something long standard in aviation but only now being viewed as an energy saver in ships. When fuel costs are down to less than 60 percent of a vessel's total operating costs, says RINA, then the green drive will have started paying for itself.

'Of course, it doesn't all have to happen now,' said Konstantinos Korfiatis, of Vessel Performance Solutions. No doubt this good news for owners and operators who, it seems, will have to re-read their Greek mythology books and find out how Theseus got out of the maze. (Which, of course, by the use of a bit of Greek ingenuity, he did.)

## POSIDONIA 2024 SHUTTLE BUS PROGRAMME

### Route 1: Athens International Airport Metro Station - Metropolitan Expo

#### Tuesday 4 to Thursday 6 June

Roundtrips throughout the day from 10:00 to 19:30

#### Friday 7 June

Roundtrips throughout the day from 10:00 to 18:00

Note: The Shuttle Bus runs every 30 minutes

Note 2: Route 1 services Sofitel at the Airport

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### Route 2: Syntagma Square (at the main entrance of the National Garden)- Metropolitan Expo

#### Tuesday 4 to Thursday 6 June

Departures from Syntagma Square: 9:00, 09:15, 9:30, 09:45 and 10:00

Return from Metropolitan Expo: 18:50, 18:55, 19:05, 19:15, 19:20 and 19:25

#### Friday 7 June

Departures from Syntagma Square: 9:00, 09:15, 9:30, 09:45 and 10:00

Return from Metropolitan Expo: 16:25, 16:40, 16:55, 17:15, 17:20 and 17:30

### Route 3: Doukissis Plakentias Metro Station - Metropolitan Expo

#### Tuesday 4 to Thursday 6 June

Roundtrips throughout the day from 09:30 to 19:30

#### Friday 7 June

Roundtrips throughout the day from 09:30 to 17:30

Note: The Shuttle Bus runs every 30 minutes

### Route 4: Glyfada Old City Hall (on Posidonos Avenue) - Metropolitan Expo

#### Tuesday 4 to Thursday 6 June

Departures from Glyfada Old City Hall (on Posidonos Avenue): 9:00 and 10:00

Return from Metropolitan Expo: 18:45 and 19:10

#### Friday 7 June

Departures from Glyfada Old City Hall (on Posidonos Avenue): 9:00 and 10:00

Return from Metropolitan Expo: 16:45 and 17:05

## EXHIBITION OPENING HOURS

Thursday 6 June 10:30 to 19:00

Friday 7 June 10:30 to 17:00

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